

CAROLINA STANGE AZEVEDO MOULIN

**DEFORESTATION BETWEEN CAPACITY BUILDING AND
POLICY DISMANTLING: A SOCIO-LEGAL INTERPRETATION
OF THE ACTION PLAN FOR PREVENTION AND CONTROL OF
DEFORESTATION IN THE BRAZILIAN AMAZON, 2004-2022**

Original Version

Doctorate Thesis

Supervisors: Prof. Ass. Dr. Ari Marcelo Solon and Prof. Dr. Andrea Lenschow

**UNIVERSITY OF SÃO PAULO
FACULTY OF LAW
OSNABRÜCK UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
São Paulo / Osnabrück**

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Doctoral thesis presented as a partial requirement for obtaining the title of Doctor in Law at the Post-Graduation Program in Law of the University of São Paulo and the title of Dr. phil. at the Institute of Social Sciences of Osnabrück University.

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To my mother Rosaly

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My family is the reason I persisted in the Ph.D. When in the beginning of 2019 I left my job as a legal consultant at a financial institution in São Paulo to dedicate myself exclusively to academia and pursue my dream of becoming a professor, I had underestimated the speed and intensity with which the Bolsonaro administration would wreck Brazilian science in the following months and years. Funding became increasingly scarce – the statistics of the Brazilian scientific diaspora are there to prove it. With each “no” received in application processes, one’s self-esteem, sense of usefulness and mental health inevitably deteriorate. It was my mother Rosaly, my greatest example of wisdom, strength and courage, who supported me financially during the first two years of my Ph.D. Without her love, help and peculiar pragmatism, I would have probably given up.

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ABSTRACT

MOULIN, C. S. A. Deforestation between capacity building and policy dismantling: a socio-legal interpretation of the Action Plan for Prevention and Control of Deforestation in the Brazilian Amazon, 2004-2022. 470p. Thesis (Doctorate) – Faculty of Law, University of São Paulo; Institute of Social Sciences, Osnabrück University, 2023.

This doctoral dissertation provides a socio-legal interpretation of the Action Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAm), Brazil's most comprehensive anti-deforestation policy. PPCDAm is credited as the main factor driving the 80% decrease in deforestation rates recorded in the biome from 2004 to 2014 – by some accounts, the largest contribution ever made by a single country to mitigate climate change. Among the basket of policy instruments implemented in the scope of PPCDAm, land and territorial planning and monitoring and control scored as the best-performing ones. The agency responsible for inspection operations at federal level is the Brazilian Institute of Environment and Renewable Natural Resources (Ibama). The research was designed as an in-depth case study that has a policy (PPCDAm) as its general unity and an organization (Ibama) as its sub-unity. The question driving the research is: what transformations in its organizational structure and culture did Ibama undergo during the implementation of PPCDAm? Data collection techniques included documental analysis and 44 semi-structured interviews with different actors. The dissertation is divided into two parts. Part I reconstructs PPCDAm's context of implementation, governance structure, array of instruments, results achieved, and main gridlocks. Part II identifies, describes, and analyzes the main transformations undergone by Ibama during the implementation of PPCDAm according to political cycle, probing whether they contributed to building or dismantling state capacity and autonomy. One of the research's main finding is to illuminate the genesis and consolidation of the so-called "doctrine of deterrence," the greatest acquisition of Ibama's incremental process of institutional experimentation. Inspired by a leftist reading of Clausewitz's warfare theory, the doctrine postulates the concentration of organizational energies on operations aiming at high-profile targets and resulting in the immediate decapitalization of offenders, guidelines that contributed significantly for the 80% decrease of deforestation.

Keywords: Environmental law. Environmental policy. Sociology of organizations. Deforestation prevention and control. Brazilian Amazon.

RESUMO

MOULIN, C. S. A. Desmatamento entre construção de capacidade estatal e desmantelamento de políticas públicas: uma interpretação jurídico-sociológica do Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal, 2004-2022. 470f. Tese (Doutorado) – Faculdade de Direito, Universidade de São Paulo; Instituto de Ciências Sociais, Universidade de Osnabrück, 2023.

Esta tese de doutorado oferece uma interpretação jurídico-sociológica do Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal (PPCDAm). Mais abrangente política brasileira de combate ao desmatamento, o PPCDAm é creditado como o principal fator que impulsionou a queda de 80% nas taxas de desmatamento registrada no bioma de 2004 a 2014 – redução considerada a maior contribuição já feita por um país para mitigar as mudanças climáticas. Dentre o mix de instrumentos implementados no escopo do plano, os eixos de ordenamento fundiário e territorial e de monitoramento e controle foram avaliados como os de melhor desempenho. O órgão responsável por operações de fiscalização a nível federal é o Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Ibama). A pesquisa é um estudo de caso em profundidade que tem uma política pública (PPCDAm) como sua unidade geral e um órgão estatal (Ibama) como sua subunidade. A questão que norteia a pesquisa é: por quais transformações em sua estrutura e cultura organizacionais o Ibama passou durante a implementação do PPCDAm? Técnicas de coleta de dados incluíram análise documental e 44 entrevistas semiestruturadas com diferentes atores. A Parte I reconstrói o contexto de implementação do PPCDAm, sua estrutura de governança, seus instrumentos, resultados, e principais obstáculos. A Parte II analisa as transformações sofridas pelo Ibama durante a implementação do PPCDAm de acordo com cada ciclo político, investigando se elas contribuíram para a construção ou o desmantelamento de capacidade estatal. Um dos achados da pesquisa é iluminar a gênese e consolidação da “doutrina da dissuasão,” aquisição gestada no processo de experimentação institucional vivido pelo Ibama. Inspirada em uma leitura à esquerda da teoria da guerra de Clausewitz, a doutrina postula a concentração de energias institucionais em operações contra alvos de alta visibilidade e que ensejem imediata descapitalização dos infratores.

Palavras-chave: Direito ambiental. Políticas públicas ambientais. Sociologia das organizações. Prevenção e controle do desmatamento. Amazônia brasileira.

ZUSAMMENFASSUNG

MOULIN, C. S. A. Entwaldung zwischen Kapazitätsaufbau und -abbau: eine rechtssoziologische Interpretation des Aktionsplans zur Prävention und Kontrolle der Entwaldung im brasilianischen Amazonasgebiet, 2004-2022. 470S. Dissertation (Doktorat) – Rechtswissenschaftliche Fakultät, São Paulo Universität; Institut für Sozialwissenschaften, Osnabrück Universität, 2023.

Diese Dissertation liefert eine rechtssoziologische Interpretation des Aktionsplans zur Verhinderung und Kontrolle der Entwaldung im Amazonasgebiet (PPCDAm), der umfassendsten Politik Brasiliens gegen Entwaldung. Der PPCDAm wird als Hauptfaktor für den Rückgang der Entwaldungsrate im Amazonasgebiet um 80% zwischen 2004 und 2014 angesehen – nach einigen Angaben der größte Beitrag, den ein einzelnes Land je zur Eindämmung des Klimawandels geleistet hat. Unter den politischen Instrumenten, die im Rahmen des PPCDAm umgesetzt wurden, schnitten die Bereiche Landplanung sowie Überwachung und Kontrolle am besten ab. Die für die Kontrolle zuständige Behörde ist das Brasilianische Institut für Umwelt und erneuerbare natürliche Ressourcen (Ibama). Dementsprechend wurde die Untersuchung als eingehende Fallstudie konzipiert, die eine Politik (PPCDAm) als allgemeine Einheit und eine Organisation (Ibama) als Untereinheit hat. Die Frage, die der Untersuchung zugrunde liegt, lautet: Welche Veränderungen in der Organisationsstruktur und -kultur hat Ibama während der Umsetzung des PPCDAm erfahren? Die Datenerhebung umfasste Dokumentenanalyse und 44 halbstrukturierte Interviews mit verschiedenen Akteuren. Teil I rekonstruiert den Kontext der Umsetzung des PPCDAm, seine Governance-Struktur, Instrumente, Ergebnisse und Blockaden. Teil II analysiert die wichtigsten Veränderungen, die Ibama während der Umsetzung des PPCDAm je nach politischem Zyklus durchlief, und untersucht, ob sie zum Aufbau oder Abbau staatlicher Kapazitäten und Autonomie beitragen. Das Hauptergebnis besteht darin, die Entstehung und Konsolidierung der „Doktrin der Abschreckung“ zu beleuchten, einer Errungenschaft des institutionellen Experimentierprozesses der Ibama. Inspiriert von einer linken Lesart der Clausewitz'schen Kriegstheorie postulierte die Doktrin die Konzentration der Energien auf Operationen, die auf hochrangige Ziele abzielen und zur sofortigen Dekapitalisierung von Straftätern führen.

Schlüsselwörter: Umweltrecht. Umweltpolicy. Soziologie der Organisationen. Verhinderung und Kontrolle der Entwaldung. Brasilianische Amazonasgebiet.

LIST OF ABBREVIATURES

- AAF** – Agentes Ambientais Federais - Federal Environmental Agents
- ABC** – Plano Agricultura de Baixa Emissão de Carbono – Low-Carbon Agriculture Program
- ABIN** – Agência Brasileira de Inteligência – Brazilian Intelligence Agency
- ADC** – Ação Declaratória de Constitucionalidade
- ADI** – Ação Declaratória de Inconstitucionalidade
- ADO** – Ação Declaratória de Inconstitucionalidade por Omissão
- ADPF** – Arguição de Descumprimento de Preceito Fundamental
- ANATEL** – Agência Nacional de Telecomunicações – National Telecommunications Agency
- ANVISA** – Agência Nacional de Vigilância Sanitária – National Health Regulatory Agency
- APA** – Área de Proteção Ambiental – Area of Environmental Protection
- APP** – Área de Preservação Permanente – Permanent Preservation Areas
- ARIE** – Área de Relevante Interesse Ecológico – Area of Relevant Ecological Interest
- ARPA** – Programa Áreas Protegidas da Amazônia – Amazon Region Protected Areas Program
- ASCEMA NACIONAL** – Associação Nacional dos Servidores de Carreira de Especialista em Meio Ambiente
- ASCOM** – Assessoria de Comunicação do Ibama – Ibama’s Communication Office
- ATPF** – Autorização de Transporte de Produto Florestal – Authorization for the Transport of Forest Products
- BID** – Inter-American Development Bank
- BNDES** – Banco Nacional de Desenvolvimento Econômico e Social – National Bank for Economic and Social Development
- CAR** – Cadastro Ambiental Rural – Rural Environmental Registry
- CCIR** – Certificado de Cadastro do Imóvel Rural – Certificate of Registration of Rural Property
- CFTA** – Comitê Técnico do Fundo Amazônia – Amazon Fund Technical Committee
- CICCIA** – Comissão Interministerial de Combate a Crimes e Infrações Ambientais – Interministerial Commission to Combat Environmental Crimes

CIMI – Conselho Indigenista Missionário – Indigenous Missionary Council

CMN – Conselho Monetário Nacional – National Monetary Council

CNASI – Confederação Nacional das Associações dos Servidores do Inca – National Confederation of Associations of Inca Servants

CNJ – Conselho Nacional de Justiça – National Council of Justice

COFA – Comitê Orientador do Fundo Amazônia – Amazon Fund Supervision Committee

CONAB – Companhia Nacional de Abastecimento – National Supply Agency

CONAMA – Conselho Nacional do Meio Ambiente – National Environmental Council

CONAVEG – Comissão-Executiva para Controle do Desmatamento Ilegal e Recuperação da Vegetação Nativa – Executive Committee for the Control of Illegal Deforestation and Recovery of Native Vegetation

CPT – Comissão Pastoral da Terra

CRA – Cotas de Reserva Ambiental – Environmental Reserve Quotas

DAAD – Deutscher Akademischer Austauschdienst

DAS – Direção e Assessoramento Superiores

DDA – Diagnóstico de Delitos Ambientais

DETER – Sistema de Detecção do Desmatamento em Tempo Real

ECLAC – Economic Commission for Latin America and the Caribbean

EMBRAPA – Empresa Brasileira de Pesquisa Agropecuária

ESEC – Estação Ecológica – Ecological Station

FCO – Fundo Constitucional de Financiamento do Centro-Oeste

FDA – Fundo de Desenvolvimento da Amazônia

FIESP – Federação das Indústrias do Estado de São Paulo

FLONA – Floresta Nacional – National Forest

FNO – Fundo Constitucional de Financiamento do Norte

FUNAI – Fundação Nacional dos Povos Indígenas – National Foundation for Indigenous Peoples

GDP – Gross Domestic Product

GEF – Grupo Especializado de Fiscalização

GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit – German Society for International Cooperation

GLO – Garantia da Lei e da Ordem

GTA – Guia de Trânsito Animal – Animal Transit Permit

HDI – Human Development Index

IBAMA – Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – Brazilian Institute of Environment and Renewable Natural Resources

IBDF – Instituto Brasileiro de Desenvolvimento Florestal – Brazilian Institute for Forest Development

IBRA – Instituto Brasileiro de Reforma Agrária – Brazilian Institute for Agrarian Reform

ICMBIO – Instituto Chico Mendes de Conservação da Biodiversidade

ICMS – Imposto sobre Circulação de Mercadorias e Serviços

IMAZON – Instituto do Homem e Meio Ambiente da Amazônia

INCRA – Instituto Nacional de Colonização e Reforma Agrária

INDA – Instituto Nacional de Investigação e Desenvolvimento Agrário – National Institute for Agricultural Development

IPA – Instituto Pensar Agropecuária

IPAM – Instituto de Pesquisa Ambiental da Amazônia

IPEA – Instituto de Pesquisa Econômica Aplicada

ISA – Instituto Socioambiental

KFW – Kreditanstalt für Wiederaufbau

MONAT – Monumento Natural – Natural Monument

MPF – Ministério Público Federal – Federal Public Prosecutor’s Office

NDC – Nationally Determined Contribution

OECD – Organization for Economic Cooperation and Development

PA – Projeto de Assentamento Federal – Federal Settlement Project

PAA – Programa de Aquisição de Alimentos – Food Acquisition Program

PAC – Programa de Aceleração do Crescimento – Program for Growth Acceleration

PAE – Projeto de Assentamento Agroextrativista – Agroextractivist Settlement Project

PAF – Projeto de Assentamento Florestal – Forestry Settlement Project

PAM – Projeto de Assentamento Municipal – Municipal Settlement Project

PARNA – Parque Nacional – National Park

PAS – Plano Amazônia Sustentável

PDAS – Projeto Descentralizado de Assentamento Sustentável – Decentralized Sustainable Settlement Project

PDRS XINGU – Plano de Desenvolvimento Regional Sustentável do Xingu – Plan for the Sustainable Regional Development of the Xingu

PDS – Projeto de Desenvolvimento Sustentável – Sustainable Development Project

PE – Projeto de Assentamento Estadual – Subnational State Settlement Project

PEP – Reconhecimento de Assentamento de Fundo de Pasto – Fundo de Pasto Settlement

PGPM BIO – Política de Garantia de Preços Mínimos para os Produtos da Sociobiodiversidade – Policy to Guarantee Minimum Prices for Sociobiodiversity Products

PGTA – Planos de Gestão Territorial e Ambiental de Territórios Indígenas – Plans for Territorial and Environmental Management of Indigenous Lands

PMDB – Partido do Movimento Democrático Brasileiro

PMFC – Programa de Manejo Florestal Comunitário – Community and Family Forest Management Program

PNAE – Programa Nacional de Alimentação Escolar – National School Feeding Program

PNAP – Plano Estratégico Nacional de Áreas Protegidas – National Strategic Plan for Protected Areas

PNAPA – Plano Nacional Anual de Proteção Ambiental

PNGATI – Política Nacional de Gestão Territorial e Ambiental de Terras Indígenas – National Policy for Territorial and Environmental Management of Indigenous Lands

PNPSB – Plano Nacional de Promoção das Cadeias de Produtos da Sociobiodiversidade – National Plan for the Promotion of Sociobiodiversity Supply Chains

PNRA – Plano Nacional de Reforma Agrária – National Agrarian Reform Plan

POP – Procedimento Operacional Padrão

PPA – Plano Plurianual – Multiyear Budget Plan

PPCDAM – Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal – Action Plan for Prevention and Control of Deforestation in the Legal Amazon

PPCERRADO – Plano de Ação para Prevenção e Controle do Desmatamento no Cerrado

PPG7 – Programa Piloto para Proteção das Florestas Tropicais do Brasil – Pilot Program to Conserve the Brazilian Rain Forest

PPTAL – Projeto Integrado de Proteção às Populações e Terras Indígenas da Amazônia Legal – Integrated Project to Protect Indigenous Lands and Populations in the Amazon

PRA – Programa de Regularização Ambiental – Environmental Regularization Program

PRB – Reassentamento de Barragem – Dam Resettlement

PRODES – Projeto de Monitoramento do Desmatamento na Amazônia Legal por Satélite

PRONAF – Programa Nacional de Fortalecimento da Agricultura Familiar – National Program for Strengthening Family Agriculture

PRSA – Política de Responsabilidade Socioambiental – Socio-Environmental Responsibility Policy

PT – Partido dos Trabalhadores – Workers Party

PV – Partido Verde – Green Party

RDS – Reserva de Desenvolvimento Sustentável – Sustainable Development Reserve

REBIO – Reserva Biológica – Biological Reserve

REDLAFICA – Red Latinoamericana de Fiscalización y Cumplimiento Ambiental – Latin American Network of Environmental Inspection

REDSUFICA – Red Sudamericana de Fiscalización y Cumplimiento Ambiental – South-American Network of Environmental Inspection

RESEX – Reserva Extrativista – Extractivist Reserve

RF – Reserva de Fauna – Fauna Reserve

RIF – Regulamento Interno de Fiscalização

RL – Reserva Legal – Legal Reserve

RPPN – Reserva Particular do Patrimônio Natural – Natural Patrimony Particular Reserve

RVS – Refúgio da Vida Silvestre – Wildlife Refuge

SEMA – Secretaria de Estado do Meio Ambiente – State Environmental Secretariat

SEMAM/PR – Secretaria do Meio Ambiente da Presidência da República

SENAC – Serviço Nacional de Aprendizagem do Comércio

SISBIN – Sistema Brasileiro de Inteligência – Brazilian Intelligence System

SISNAMA – Sistema Nacional do Meio Ambiente – National Environmental System

SIVAM – Sistema de Vigilância da Amazônia

SNUC – Sistema Nacional de Unidades de Conservação da Natureza – National System of Conservation Units

SPI – Serviço de Proteção ao Índio – Indigenous Protection Service

SPU – Secretaria de Patrimônio da União – Secretariat of the Union's Patrimony

SUDEPE – Superintendência do Desenvolvimento da Pesca – Fishing Agency

SUDHEVEA – Superintendência da Borracha – Rubber Agency

TCU – Tribunal de Contas da União – Federal Audit Court

TRQ – Território Remanescentes Quilombola – Quilombola Territory

UNCED – United Nations Conference on Environment and Development

UNDP – United Nations Development Programme

WWF – World Wildlife Fund for Nature

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INTRODUCTION

The relevance of the Amazon for human and non-human life on Earth hardly needs to be reaffirmed to the reader interested on environmental law and policy. The biome is the world's largest rainforest and biodiversity hotspot, a major natural carbon sink, an important regulator of temperature, humidity, and rain patterns, as well as a provider of essential ecological functions and livelihood conditions.¹ It shelters the largest river basin on the planet, with 25,000 kilometers of navigable rivers. Occupying a total area of circa 8,5 million hectares, the Amazon spreads across the territories of Brazil, Bolivia, Colombia, Ecuador, Guyana, French Guyana, Peru, Suriname, and Venezuela. 60% of its vegetal cover is located in Brazil.²

The Brazilian portion of the biome – called “Legal Amazon” in national policy jargon – has 5 million hectares, covers approx. 60% of the country's territory and spreads over 766 municipalities. If it were a country, the Legal Amazon would be the 6th largest in the world. It represents 67% of the world's tropical forests, sheltering 30% of all trees and 20% of all fresh waters on the planet.³ It is also home to around 180 different indigenous groups and more than 1,000 traditional communities.⁴ Indigenous societies have occupied the Amazon basin for at least 12,000 years, and archaeological research estimates that the territory harbors between 10,000 and 24,000 pre-Columbian works.⁵ According to the 2020 census, today the region has 28,4 million inhabitants, 75% of whom live in urban areas and 25% in rural areas.⁶

Although the Amazon is still considered the most preserved tropical forest on Earth (around 80% of its original vegetation in Brazilian territory remains conserved), deforestation poses a permanent threat to the forest and its peoples. There is growing concern that the Amazon system might reach its tipping point towards savannization at 25% deforestation.⁷ The extreme drought and intense heat waves that hit the region in October 2023 have sharpened fears that the tipping point is getting closer. Appalling images of the massive Rivers Negro, Solimões,

¹ PIVETTA, Marcos. A floresta da chuva. *Pesquisa FAPESP*, 285, 2019, pp. 18-27.

² RED AMAZÔNICA DE INFORMACIÓN SOCIOAMBIENTAL GEORREFERENCIADA. Deforestación em la Amazonía al 2025. Available at: <https://infoamazonia.org/wp-content/uploads/2023/03/DEFORESTACION-AMAZONIA-2025_21032023.pdf>. Accessed on 01 November 2023.

³ IMAZON. A Amazônia em números. Available at: <<https://imazon.org.br/imprensa/a-amazonia-em-numeros/>>. Accessed on 01 November 2023.

⁴ AZEVEDO-RAMOS, Claudia. A importância das florestas em pé na Amazônia. Brasília: IPAM, 2001.

⁵ PERIPATO, Vinicicus et al. More than 10,000 pre-Columbian earthworks are still hidden throughout Amazonia. *Science*, vol. 382, issue 6666, 2023, pp. 103-109, doi: 10.1126/science.ade254.

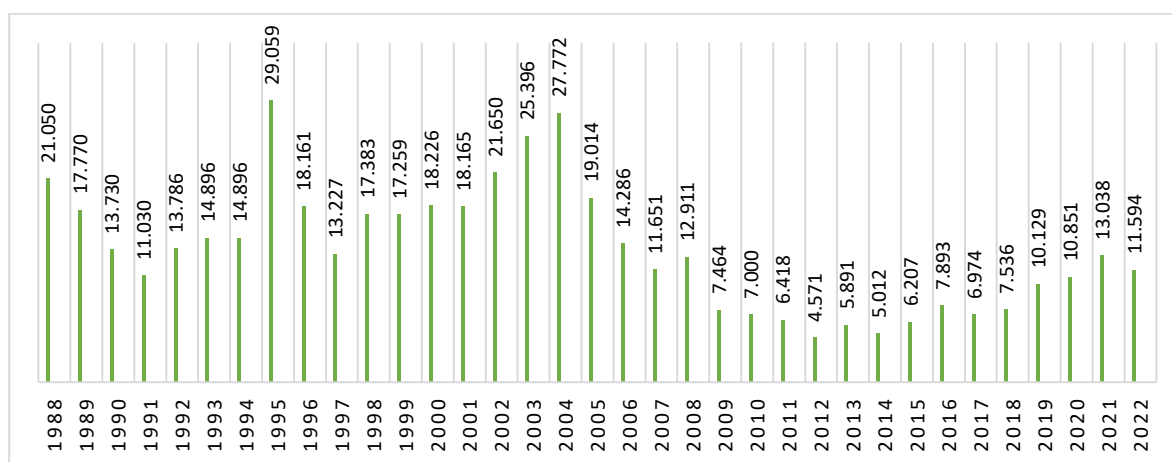
⁶ SANTOS, Daniel et al. Fatos da Amazônia 2021. Available at: <<https://amazonia2030.org.br/wp-content/uploads/2021/04/AMZ2030-Fatos-da-Amazonia-2021-3.pdf>>. Accessed on 01 November 2023.

⁷ LOVEJOY, Thomas; NOBRE, Carlos. Amazon Tipping Point. *Science Advances*, 4(2), 2018, doi: 10.1126/sciadv.aat2340.

Purus, Madeira and Amazonas transformed into sandbanks and littered with the corpses of hundreds of river dolphins and thousands of fish that succumbed to the rising water temperature,⁸ call even more urgently for the resumption and hardening of policies to fight deforestation and fires.

Deforestation rates in the biome began to be monitored by satellite technology by the National Institute for Space Research (Instituto Nacional de Pesquisas Espaciais, acronym Inpe), a federal agency linked to the Ministry of Science and Technology, in 1988. In that year, the region lost 21,050 km² of native vegetation. The historic peak was recorded in 1995 (29,059 km²) and the second-highest deforestation was observed in 2004 (27,772 km²). The lowest rate was registered in 2012 (4,571 km²). In 2013 there was an increase in forest conversion (5,891 km²), followed by a decrease in the subsequent year (5,012 km²) and a renewed steady increase from 2015 (6,207 km²) to 2022 (11,594 km²). Data released in October 2023 indicated that deforestation from August 2022 to July 2023 dropped to 9,001 km², an estimated reduction of 22.37% compared to the previous year.⁹

Graphic 1: Deforestation in the Brazilian Amazon from 1988 to 2022 (km²/year)



Source: BRAZIL. INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS (INPE). Índices de desmatamento na Amazônia. Available at: <http://terrabrazilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/rate>. Accessed on 10 November 2022.

⁸ MEDEIRAS, Marcelo et al. More than 100 dolphins dead in Amazon as water hits 102 degrees Fahrenheit. (CNN, 01 October 2023). Available at: <<https://edition.cnn.com/2023/10/01/americas/amazon-river-dolphins-dead-temperatures-drought-intl-hnk/index.html>>. Accessed on 01 November 2023.

⁹ BRAZIL. INSTITUTO BRASILEIRO DE PESQUISAS ESPACIAIS. Nota técnica: Estimativa de desmatamento na Amazônia Legal para 2023 é de 9.001 km². Available at: <https://www.gov.br/inpe/pt-br/assuntos/ultimas-noticias/estimativa-de-desmatamento-na-amazonia-legal-para-2023-e-de-9-001-km2/2023_1020_Nota_tecnica_Estimativa_Taxa_2023_SEI.pdf>. Accessed on 13 November 2023.

Two “puzzles” call our attention in the graphic above: What factors explain the 80% decrease in deforestation rates observed from 2004 to 2014? And what happened in 2015 that interrupted and reversed this declining trend? With regards to the first puzzle, part of the literature credits the Action Plan for Prevention and Control of Deforestation in the Legal Amazon (Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal, acronym PPCDAm) as the main factor driving the continuous decline in deforestation between 2004 and 2014. PPCDAm was a public policy created by the Brazilian government in 2003, aimed at reducing deforestation and degradation of native vegetation in the Amazon. With regards to the second puzzle, there is scientific convergence that deforestation is not a linear, mono-causal phenomenon, but a multifactorial, dense web of historically determined relations. General theories of Earth-grabbing and enclosures of commons – some denouncing imperialist capitalism for dooming peripheral countries to the production of low-value-added commodities, others blaming modernity’s “great divide” between subject and object for subjugating nature, – retain validity at a formal level. Yet, what more immediately motivates concrete decisions to convert forestland into pasture or monocrop plantation differs from case to case. Middle-level explanations relate the increase in deforestation observed from 2015 onward to an increase in the international demand for gold, timber, soy and beef. Between 2019 and 2022, this demand factor was compounded by the deliberate dismantling of domestic enforcement mechanisms by an openly anti-indigenous and unrestrictedly pro-agribusiness government.

In what concerns its temporal scope, PPCDAm was originally structured into four phases: 2004-2008, 2009-2011, 2012-2015, and 2016-2020. In 2019, it was extinguished by the administration of Jair Bolsonaro. In 2023, with Lula’s comeback to the presidency for a third term, the policy has been reinstated. Its current phase goes from 2023 to 2027. In what concerns its material scope, the plan is organized into four axes: (1) land and territorial planning, which was focused on creating large-scale ethno-environmental territorial mosaics through the establishment of conservation units and demarcation of indigenous lands; (2) environmental monitoring and control, oriented to enhancing the effectiveness of law enforcement and increasing the perception of risk by environmental offenders; (3) sustainable productive activities, which aimed at providing positive incentives to change the Amazonian economic model from one based on extensive cattle ranching and monocrop agriculture toward one grounded on family farming, agroecology, and sociobiodiversity products; and (4) economic and normative instruments, introduced at a later stage to agglutinate transversal issues and better follow up the legal innovations introduced in the policy’s first three phases.

Each axis counted on a plethora of instruments to target the direct and indirect causes of deforestation on multiple fronts. These included subsidies for agroecological family farming and sustainable production, the creation of the Amazon Fund, the establishment of 50 million hectares of conservation units, and the demarcation of 10 million hectares of indigenous lands. Among the mix of policy instruments implemented within PPCDAm, one particularly important was the strengthening of inspection operations and related command and control tools, such as clearer criteria for rangers to seize goods, embargo areas, and destroy equipment used in illegal deforestation, extension of legal liability to financiers, suppliers and buyers of products involved with illegal deforestation, dirty-listing of critical municipalities, imposition of mandatory land re-registration in critical municipalities, and restriction of public credit to undertakings operating in embargoed areas. Some studies have claimed that enhanced environmental law enforcement was what contained the bulk of deforestation. In a convergent tone, policy audits have evaluated monitoring and control (alongside land and territorial planning) as the best-performing axis of PPCDAm.

The agency responsible for planning and carrying out inspections at federal level is the Brazilian Institute of Environment and Renewable Natural Resources (Ibama). Despite its decisiveness for PPCDAm's success during the first decade of policy implementation, Ibama has received very limited academic attention to date from social scientists and legal scholars. References to Ibama in the literature on environmental policy and politics are often restricted to false stereotypes of corruption and inefficiency that are completely oblivious to the institutional metamorphosis that the agency has undergone in the last two decades, transformations that allowed it to deliver positive results seen in PPCDAm's first ten years.

Accordingly, besides the chapters referring to literature review and research design, the dissertation is composed of two parts. Part I takes a broader perspective on PPCDAm, describing its institutional background, context of implementation, governance structure, instrumentarium, results achieved, and main gridlocks. It aspires to become a sort of "lexicon" for academics and policymakers interested in the history of the policy. Part II has a narrower and deeper focus on Ibama, aiming to identify and analyze the transformations that its organizational structure and culture undergo during the implementation of PPCDAm. It registers "backstage" moments behind several institutional innovations that managed to increase the perception of punitive risk by environmental offenders, as well as the routine actions of anonymous civil servants who daily risk their lives at the service of the forest and its peoples, facing the fury of miners and loggers, politicians and agribusinessmen. Although undeniably evaluating the deeds of environmental law enforcement agents as positive, the

analytical lens adopted in this dissertation does not refrain from pointing out the limitations and shortcomings of Ibama's performance.

This investigation contributes to the literature (including but not limited to the fields of environmental law and policy, sociology of organizations, and socio-legal research) in two ways. At a theoretical level, it connects a web of concepts derived from studies on state capacity and bureaucratic autonomy with recent debates on autocratization, democratic backsliding and policy dismantling. This enriches our vocabulary to apprehend the relations between law, administration, and politics, helping to capture detailed insights on the patterns of institutional change in democratic policy processes while discerning those that are specific to contexts of autocratization. At an empirical level, the in-depth case study draws on documental analysis and 44 semi-structured interviews with different actors: Ibama civil servants, actors working in other state institutions involved in the implementation of PPCDAm, federal prosecutors, NGO representatives, and agribusiness actors. To shed light on the implementation of Brazil's most comprehensive forestry policy, the dissertation tells the story of how a group of civil servants of an agency hitherto sidelined as inconsequential developed a set of legal-institutional innovations that revolutionized environmental law enforcement in Brazil and substantially delayed the destruction of the world's largest rainforest.

CHAPTER 1. LITERATURE REVIEW

There is a fast-growing literature on the drivers of land-use change in the Amazon, and any attempt to review it will always be partial and incomplete. To render an appraisal of the state-of-the-art both intelligible and useful, we approach the existing materials by elaborating upon the differences in selected representatives of manifold literature streams. We start the review with articles published in “hard” science journals and academic monographs that sought to shed light on the direct and indirect causes of deforestation. This initial assessment reveals that even though the dynamic of deforestation is not monocausal and linear, its mediate and immediate drivers since the 1980s and 1990s relate to the intertwined expansion of monocrop agriculture, cattle ranching, timber logging, and mining.

The review also shows that the decrease in deforestation rates experienced from 2004 to 2014 was primarily attributable to a range of policy interventions carried out in the scope of PPCDAm, notably land and territorial planning and monitoring and control. Competing explanations that credit either the 2000s commodity boom or zero-deforestation agreements with the soy and beef sectors may account for part of the reduction, but the bulk of deforestation was contained by the work of different Brazilian state institutions responsible for PPCDAm’s implementation. The weakening of the political arrangement that gave these organizations such a strong executive mandate would explain the reversal of the downward trend in deforestation, which began to increase again in 2015. Among these institutions, Ibama, Brazil’s main agency responsible for environmental law enforcement, takes pride of place.

However, as we review in-depth qualitative studies in the sociology of law, political science, regulation studies and related areas, we find very little correspondence between their accounts and these findings. Much of the work on environmental policy and deforestation produced in the social sciences focuses on the justice system (e.g. strategic litigation networks formed by NGOs and public prosecutors) or transnational actors (e.g. influence of transnational NGOs in domestic activism and policymaking). The role of executive law enforcement by state institutions in these studies is often erased or sometimes even disqualified by arm’s-length criticism of inefficacy, ineptitude, and corruption. Understanding the reasons and implications of this distance between literature streams is one of the objectives of the present review chapter.

The next subsections aim to position my research in relation to four different approaches to land-use change in the Amazon: studies on the direct and indirect causes of deforestation; regulatory pluralism; strategic legal action; and transnational actors. By

underlining to what extent the dissertation draws on, or departs from, these contributions, we gain terrain and build common ground in preparation for presenting the research design.

1.1 Direct and indirect causes of deforestation

This research relies on theoretical wiring that warrants the unveiling of correlations and degrees of immediacy in a qualitative manner, harking back to a longstanding tradition of sociological inquiry pivoting on the key notion of “contextual meaning.” That notwithstanding, the circumscription of the research problem and the design of data collection techniques were, to a great extent, influenced by studies that prioritize quantitative representations of reality.

Oftentimes equipped with software to process, model and analyze huge amounts of satellite data and cross-check massive commercial inflows, these studies nuanced valuable elements related to land-use change in the Amazon. I divide them into six main thematic clusters: (i) links between commodity production and frontier expansion; (ii) factors affecting individual compliance with environmental regulations; (iii) dynamics of land speculation vis-à-vis “productive” land use; (iv) impacts of land titling on forest removal; (v) relation between credit and land use; and (vi) effects of command and control policies on deforestation.

Concerning the first topic, the relation between commodities and frontier expansion. A common periodization distinguishes a first continuous deforestation cycle from the 1960s to the mid-1980s, strongly motivated by highway constructions, subsidized credit, and colonization policies induced by military governments with the geopolitical goal of consolidating “national sovereignty” over the Amazon, from a second continuous deforestation cycle initiated in the 1990s, motivated by the practice of low-value-added economic activities, mostly monocrop agriculture and cattle ranching. After the incentives implemented by military governments gradually phased out, crops and cattle proved to have become economically viable in the Amazon on their own, even without the full array of subsidies formerly in place. The dynamics of deforestation, thus, changed from geopolitically-led to commodity-driven.¹⁰ As Margulis pointed out, the activities related to commodity production are interdependent: the arrival of more capitalized and technologized large-size agriculture in regions of “consolidated frontier” elevates land prices and pushes the opening of “new frontiers” by loggers, speculators and less professionalized ranchers.¹¹

¹⁰ BECKER, Bertha. Geopolítica da Amazônia. *Estudos Avançados*, 19(53), 2005, pp. 71-86, p. 80.

¹¹ MARGULIS, Sergio. Causes of Deforestation of the Brazilian Amazon. World Bank Paper no. 22, 2004, p. 49.

In 2004, satellite data indicated that 80% of all deforested areas in the Amazon had been converted into pasture.¹² In that same year, Brazil surpassed Australia and became the largest beef exporter in the world. Information gathered in the Brazilian census also showed that, from 1999 to 2001, while the total area planted with rice and corn in the so-called “arc of deforestation”¹³ decreased respectively by 11.44% and 1.94%, the area planted with soy increased by 57.31%.¹⁴ In 2003, Brazil surpassed the United States and became the largest soy exporter in the world. Figures such as these raised scholarly attention to a positive correlation between international demand for commodities and deforestation, and, in the early 2000s, soy and beef were, along with timber extraction, widely identified as main drivers of deforestation.¹⁵ The areas of “consolidated frontier,” however, were not restricted to the arc of deforestation. As highlighted by Monteiro, the expansion of timber extraction, cattle ranching, and soy production in the Amazon region followed a logic of “stock-spaces,” making it more appropriate to speak of multiple fronts of expansion. Flat areas traditionally occupied by family farmers in the surroundings of Santarém, Pará, for instance, have been incorporated by soy producers since the 1990s, in reason of their cheap price, suitable topography and proximity to the port.¹⁶

As for the 80% decrease in deforestation from 2004 to 2014, there seems to be an agreement in the literature that such a substantial reduction, achieved simultaneously with raising international commodity prices (famously known as the 2000s commodity boom, which peaked in 2008 and was largely triggered by Chinese demand),¹⁷ was due to manifold policy interventions carried out under PPCDAm. A more detailed panorama of the actions executed under PPCDAm will be object of chapter 4. For now, it must suffice to point out that, even amidst skyrocketing soy and beef prices and a continuous reprimarization of the Brazilian export basket, coordinated actions largely succeeded in preventing forest clearance, something

¹² BRAZIL. Interministerial Working Group. PPCDAm fase 1 (2004-2008), p. 10. Available at: <http://redd.mma.gov.br/images/publicacoes/PPCDAM_fase1.pdf>. Accessed on 10 October 2023.

¹³ “The arc of deforestation corresponds to 500 thousand km² of land, going from the east and south of the Brazilian state of Pará towards the west, passing through the states of Mato Grosso, Rondônia, and Acre. It is the region where the agricultural border advances towards the forest and also where the highest rates of deforestation of the Amazon are found.” IPAM. Glossário. Available at: <<https://ipam.org.br/glossario/arc-of-deforestation/>>. Accessed on 9 November 2022.

¹⁴ BRAZIL. Interministerial Working Group. PPCDAm fase 1, *op. cit.*, p. 11.

¹⁵ BRAZIL. Interministerial Working Group. PPCDAm fase 1, *op. cit.*, p. 10-11.

¹⁶ MONTEIRO, Raimunda. *Amazônia: Espaço-Estoque, a negação da vida e esperanças teimosas*. Belém: Editora Dalcídio Jurandir, 2021, p. 101.

¹⁷ AGUIAR, Camilla. *O Efeito China no Desmatamento da Amazônia Legal: uma análise para o período 2000* (Master Dissertation) – Federal University of Rio de Janeiro, 2019, p. 11.

that was dubbed as the “decoupling” of agricultural commodities from deforestation.¹⁸ As noted by Miragaya, from 2004 to 2010 the average export price of beef increased from 2,124 to 4,066 US\$/t and the average export price of soy increased from 277 to 416 US\$/t, whereas in the same period the annual deforestation rate decreased from 27,772 to 7,000 km².¹⁹ A counterfactual simulation suggested that PPCDAm avoided approximately 73,000 km² of deforestation from 2005 to 2009.²⁰

In the case of beef, decoupling from 2004 to 2010 would be explained by an intensification of stocking rates in the Amazon region, with a 170% increase in head/hectare ratio (from 0.57 to 1.54 heads/ha).²¹ Since 2009, the Federal Public Prosecutor’s Office (MPF) has signed voluntary zero-deforestation agreements with approximately 60 meatpackers that account for around 70% of slaughtering capacity in the Amazon. The basic commitment undertaken by the slaughterhouses is not to purchase cattle from rural properties that contain illegal deforestation, overlap conservation parks or indigenous lands, or deploy slave labor. As the first Cattle Agreements were only signed in 2009, the impulse for the initial intensification of stocking rates is attributed by Miragaya to seizures and embargos conducted by Ibama in the early years of PPCDAm.²²

In the case of soy, decoupling is commonly related to the Soy Moratorium signed in 2006 by transnational traders (which together account for more than 50% of all soy traded in the world).²³ The traders committed not to commercialize, acquire and finance soybeans from deforested areas within the Amazon biome listed as embargoed by Ibama. Gibbs et al. contend that “in the 2 years preceding the agreement, nearly 30% of soy expansion occurred through deforestation rather than by replacement of pasture or other previously cleared lands.” After the moratorium, “deforestation for soy dramatically decreased, falling to only ~1% of expansion in the Amazon biome by 2014.”²⁴ This decrease would have been achieved due to the expansion of soy into areas initially occupied by pasture, on the one hand, and to spillover effects over the

¹⁸ MACEDO, Marcia *et al.* Decoupling of deforestation and soy production in the southern Amazon during the late 2000s. *Proceedings of the National Academy of Sciences*, 109(4), 2012, pp. 1341-1346.

¹⁹ MIRAGAYA, Júlio Flávio Gameiro. Transformações no Arco do Desmatamento: a expansão da pecuária bovina na Amazônia, pressões sobre o ambiente e o papel das políticas públicas na contenção do desmatamento de 1990 a 2010. (Doctoral Dissertation) – University of Brasília, 2013, p. 181; 245.

²⁰ ASSUNÇÃO, Juliano *et al.* Deforestation Slowdown in the Brazilian Amazon: Prices or Policies? *Environment and Development Economics*, 20(6), 2015, pp. 697–722, p. 32.

²¹ MIRAGAYA, *op. cit.* p. 247.

²² MIRAGAYA, *op. cit.* p. 245.

²³ ABIOVE. Sobre nós. Available at: <<https://abiove.org.br/>>. Accessed on 18 July 2020.

²⁴ GIBBS, Holly *et al.* Brazil’s Soy Moratorium. *Science*, 347(6220), 2015, pp. 377-378.

contiguous Cerrado biome,²⁵ increasingly mourned as a “sacrifice zone,”²⁶ on the other. Heilmayr et al. calculate that the agreement prevented up to 27,000 km² of deforestation in soy-suitable locations between 2006 and 2016.²⁷ Whereas such proclaimed good results of the Soy Moratorium have been read by some authors as a sign of decoupling,²⁸ the interdependence between activities practiced in consolidated frontiers and those ventured by way of the pursuit of novel frontiers described by Margulis (also referred to as indirect land-use change)²⁹ is not of little importance for understanding the dynamics of deforestation.

Additionally, Schilling-Vacaflor et al. have shown that certification practices by the Roundtable on Responsible Soy (RTRS) have been largely insufficient to protect land and water rights of traditional communities. The authors found that the “business-dominated nature of the drafting and content of the RTRS standard” and the structural limitations of a profit-driven audit system have contributed to legitimize large-scale industrial agriculture that poses permanent threats to traditional communities and family farmers. Audit reports relied on “thin evidence” and followed a “box-checking” logic: site visits were incomplete, failed to register land and water conflicts, and did not assess the quality or adequacy of “mechanisms and channels for stakeholder consultation, communication and grievances.”³⁰

With regards to the reversal of the declining trend of deforestation in 2014, there is not much divergence that its kickoff was the approval of the new Forest Code at the end of 2012.³¹ Despite maintaining the obligation to keep permanent preservation areas along water streams and hilltops (APPs) and a legal reserve (RL) of not less than 80% of the property area if located in the Amazon – in contrast, this requirement lowers to 20% in other biomes – and creating new monitoring instruments, notably the rural environmental registry (CAR), the code amnestied all suppression of RL in small properties until 22 July 2008 and allowed for the reduction of RL from 80% to 50% under specific conditions (totaling more than 20 million hectares of amnestied

²⁵ DOU, Yue *et al.* Spillover effect offsets the conservation effort in the Amazon” *Journal of Geographical Sciences* 28(11), 2018, pp. 1715-1732.

²⁶ OLIVEIRA, Gustavo; HECHT, Susanna. Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America. *The Journal of Peasant Studies* 43(2), 2016, pp. 251-285.

²⁷ HEILMAYR, Robert *et al.* Brazil’s Amazon Soy Moratorium reduced deforestation. *Nature Food*, 1, 2020, pp. 801-810.

²⁸ MACEDO *et al.*, *op. cit.* p. 1341.

²⁹ HEILMAYR *et al.*, *op. cit.*, p. 804.

³⁰ SCHILLING-VACAFLOR, Almut *et al.* Contextualizing certification and auditing: Soy certification and access of local communities to land and water in Brazil. *World Development* 2020, doi: 10.1016/j.worlddev.2020.105281.

³¹ HOCHSTETLER, Kathryn. Climate institutions in Brazil: three decades of building and dismantling climate capacity. *Environmental Politics*, 30(51), 2021, pp. 549-570, p. 558; SOARES-FILHO, Britaldo *et al.* Cracking Brazil’s Forest Code. *Science* (344), 2014, pp. 363-364.

deforestation only in the Amazon).³² The code also suspended sanctions against landowners, regardless of property size, who adhere to an environmental regularization program for the recuperation of degraded areas (PRA), an instrument under the responsibility of the states that has been successively postponed and never gained scale. More about the implementation of CAR and PRA will be said in chapter 5.

While the expectation of impunity fostered by the Forest Code amnesty can be blamed for a parcel of the increase in deforestation during the final years of Dilma Rousseff's presidency and Michel Temer's interim administration, under the government of Jair Bolsonaro not only the rates of deforestation increased but also its patterns acquired different contours. With the massive deregulation of infra-legal norms and the dismantling of enforcement institutions, the average size of deforestation patches (individual deforestation polygons measured in satellite imagery) increased by 61% in the period 2019/2020 in comparison to the previous ten years.³³

Moreover, new fluxes of invasion of indigenous territories, conservation units, and undesignated public forests gained unprecedented proportion, motivated by the expectation of profit with illegal mining, logging, and land grabbing. In the triennium 2019-2021, deforestation increased by 138% in indigenous lands, 79% in conservation units,³⁴ and 50% in undesignated public forests,³⁵ in comparison to previous periods. The formation of networks of protected areas through the expansion of indigenous lands and conservation units under the framework of PPCDAm had acted as a barrier to forest clearance, being responsible, according to a model by Soares Filho et al., for at least 37% of the region's total reduction in deforestation between 2004 and 2006.³⁶ I resume the discussion about the territorial regimes of indigenous lands, conservation units, and undesignated public forests in chapter 4.

As for the suppression of vegetation in private rural properties – and here we enter into the second thematic cluster, factors affecting individual compliance with environmental regulations, – due to the amnesty cut-off date (July 2008), properties noncompliant with the Forest Code were able to detach themselves from the taint of “illegal” deforestation, a disrepute

³² SOARES-FILHO *et al.*, *ibid* p. 363; GUIDOTTI, Vinicius *et al.* Números detalhados do Novo Código Florestal e suas implicações para os PRAs. *Sustainability in Debate* 5, 2017, pp. 1-9.

³³ SOARES-FILHO, Britaldo et al. Role of Brazilian Amazon protected areas in climate change mitigation. *Proceedings of the National Academy of Sciences*, 107(24), 2010, pp. 10821-10826.

³⁴ INSTITUTO SOCIOAMBIENTAL. Nota Técnica: desmatamento sem controle na Amazônia Legal, a estimativa de desmatamento Prodes em 2021 e o impacto nas áreas protegidas (2021). Available at: <<https://acervo.socioambiental.org/acervo/documentos/desmatamento-sem-controle-na-amazonia-legal-estimativa-da-taxa-de-desmatamento>>. Accessed on 10 October 2023.

³⁵ IPAM. Florestas públicas não destinadas e grilagem. Available at: <<https://ipam.org.br/florestas-publicas-nao-destinadas-e-grilagem/>> Accessed 9 November 2022.

³⁶ SOARES-FILHO et. al., *op. cit.*

which could be narrowed down to a few “rotten apples” by dint of legislative maneuvers. Whereas in 2020 roughly 45% of registered properties in the Amazon and 48% in the Cerrado were noncompliant with the Forest Code for deforesting APPs or RLs, only 2% of them were responsible for 62% of illegal deforestation (that is, deforestation committed after July 2008) in both biomes.³⁷

The literature acknowledges that the adoption of conservation practices by rural producers is influenced by multiple factors. In a study that conducted structured face-to-face interviews with 77 rural producers in 17 municipalities of Pará and Mato Grosso in 2014/2015, Pacheco et al. classified those factors as economic (such as income, productivity, property size, and opportunity cost), sociodemographic (like age, education, gender, and experience); institutional (for instance, tax or financial incentives, informational instruments, and commercial support), and cognitive (perceptions, values, and beliefs).³⁸ The authors concluded that most producers are recalcitrant to regularize their RL because they disagree with the 80% percentage established by the Forest Code and consider the costs to recover degraded areas too high.³⁹

The third and fourth other topics selected for this partial review on quantitative studies – the impact of land speculation on deforestation and the influence of land tenure regularization on conservation practices, – evoke distinct but complementary contextual effects. Speculative acquisitive behavior can be driven by manifold expectations – such as future infrastructure improvements and conservation policy-induced land scarcity,⁴⁰ – the perspective of land titling occurring after illegal occupation constituting a key one of them.⁴¹

Given the new rush for land grabbing incentivized by deregulation measures taken in the Bolsonaro government, one can feel tempted to conceive the phenomenon of land speculation as divorced from productive practices such as agriculture and ranching. Based on

³⁷ RAJÃO, Raoni *et al.* The rotten apples of Brazil’s agribusiness. *Science* 369(6501), 2019, pp. 246-248.

³⁸ PACHECO, Rayane *et al.* Regularization of legal reserve debts: perceptions of rural producers in the states of Pará and Mato Grosso in Brazil. *Ambiente & Sociedade* xx(2), 2017, pp. 181-200, p. 190. See also RIVERO, Sérgio *et al.* Pecuária e desmatamento: uma análise das principais causas diretas do desmatamento na Amazônia. *Nova Economia* 19(1), 2009, pp. 41-66, p. 55. Arguably, the differences between the capitalist and peasant modes of production could be grasped by a combination of the economic, sociodemographic, institutional, and cognitive factors construed by Pacheco et al.

³⁹ PACHECO et al., *op. cit.* p. 194.

⁴⁰ MIRANDA, Javier *et al.* Land speculation and conservation policy leakage in Brazil. *Environmental Research Letters* 14, 2019, 045006.

⁴¹ SAUER, Sérgio *et al.* Governo Bolsonaro amplia a grilagem de terras com mais uma medida provisória. *Boletim DataLuta* 144, 2019, pp. 1-10; LEITE, Acácio *et al.* A questão agrária no momento político brasileiro: liberalização e mercantilização da terra no estado mínimo de Temer. *Revista OKARA*, 12(2), 2018, pp. 247-274.

this premise, land speculation via *grilagem*⁴² would actually be the key business making profits, instead of the ranching that follows. According to this reasoning, if one could find where more money goes into, whether to ranching or to grabbing, logging and selling, it would be easier to identify which activities explain deforestation as the selected land use.

Studies on speculative acquisition in the Amazon region show, however, that such “follow the money” logic cannot be so easily transposed to draw a line between mediate and immediate causes fueling the dynamics of deforestation. As Miranda et al. note, speculators profit from conveying current forestland price information on expected future use. Expected future use can be higher priced for many reasons: infrastructure improvements may be foreseen for the region, undesignated public lands may be becoming scarcer in the area,⁴³ political actors may signal that illegal occupations will be titled, or all that at once.

Nevertheless, the ultimate reference for determining a higher future price is always *use*, the expectation that, at some point in the near term, someone will pay a higher price to give that land a “productive” destination and profit from it. As Margulis already pointed out in 2004, the arrival of more capitalized activities in the consolidated frontier elevates land prices, pushes less technologized ranchers deeper into the forest and finances new deforestation. The symbiosis between “productive” and speculative activities – the “interdependence” between consolidated and new frontiers or indirect land use change – makes it hard to fully isolate the “typical behavior of an extractive rent-seeking race with short-term, high-pay-off investments”⁴⁴ from the long-sighted, sedentary investments in large-scale monocrop agriculture. The latter temporally succeeds the former in the territory in a way that the elasticity of land prices and the certainty of protein demand (either directly as beef or indirectly as soy-based animal feed) appear as two sides of the same coin. Correspondingly, cattlemen who simultaneously work as real estate agents and lease a part of their lands to soybean farmers are common in areas of consolidated frontier.

When it comes to the impact of land tenure regularization on conservation practices, the analyses are very heterogeneous. To evaluate whether the granting of property rights over

⁴² “Grilagem” is usually translated as “land grabbing.” The etymology of the word in Portuguese refers to the practice of forging property titles in a box with crickets (“grilos”). The crickets’ excrements made the papers look old, giving an appearance of legitimacy to the land claim. For a remarkable rendition of the subject in English see CAMPBELL, Jeremy. *Conjuring Property: Speculation and Environmental Futures in the Brazilian Amazon*. Washington: University of Washington Press, 2015.

⁴³ MIRANDA et al., *op. cit.* notice that PPCDAm’s enforcement efforts in the Amazon seemed to have generated speculation leakage to the eastern parts of Cerrado in the MATOPIBA region, as well as in Mato Grosso and Pará along the BR-163.

⁴⁴ CARRERO, Gabriel *et al.* Deforestation Trajectories on a Development Frontier in the Brazilian Amazon: 35 Years of Settlement Colonization, Policy and Economic Shifts, and Land Accumulation. *Environmental Management* 66, 2020, pp. 966-984.

a plot of land stimulates or discourages deforestation, one must consider the policy conditions regulating titling, as well as their implementation context. As we will see in more detail in chapter 5, from 2009 to 2016 the largest initiative to assign private property rights to occupants of undesignated public lands in the Amazon was the Terra Legal program, a policy created under PPCDAM with the dual goal to increase land tenure security for smallholders and reduce deforestation. In a summarized formulation, landholders were granted a conditional title if they could prove occupation of a land plot of up to 1.500 hectares before December 2004. To be eligible for a conditional title, landowners must not own any other rural property nor already take part in settlement projects. The title remained provisional for ten years, during which they were not allowed to sell the land (though could use it as collateral for loans) and needed to prove compliance with the Forest Code and labor regulations. If those conditions were met after one decade landholders were granted a final title, which warranted full property rights.⁴⁵ Until 2017, approximately 30,000 conditional titles were issued under Terra Legal.⁴⁶ However, due to a lack of institutional structure to carry out on-site inspections complementarily to satellite monitoring, on-the-ground monitoring of conditionalities (also called “cancellation clauses”) was very limited, and never systematically carried out in scale.⁴⁷

Studies covering this initial policy period of 2009-2016 thus present divergent results regarding titling and compliance with the Forest Code. While Carmo Jr. argues that regularized rural properties located in “municipalities with high rates of rural property titling [...] presented the greatest reductions in growth rates of deforestation,”⁴⁸ Probst et al. found evidence that “small and medium landholders increased deforestation in response to the programme, whereas large landholders remained largely unaffected.”⁴⁹ Okida et al. reached a similar conclusion: under Terra Legal, “the smaller the property, the greater the percentage of proportional deforestation in the certification.”⁵⁰ The latter’s findings suggest that the 80% reduction of deforestation achieved from 2004 to 2014 cannot so much be attributed to land privatization through large-scale titling. The experience of Terra Legal indicates that clearer private property rights alone do not provide conservation incentives.

⁴⁵ PROBST, Benedict *et al.* Impacts of a large-scale titling initiative on deforestation in the Brazilian Amazon. *Nature Sustainability* 3, 2020, pp. 1019–1026.

⁴⁶ DO CARMO JR., Otávio. Regularização Fundiária e sua Relação Econômico-Ambiental na Amazônia Legal: uma análise espacial (Doctoral Dissertation) – University of Brasília, 2018, p. 54.

⁴⁷ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Auditoria de Conformidade no Programa Terra Legal – Acórdão 627/2015, p. 18.

⁴⁸ DO CARMO JR, *op. cit.* p. 108.

⁴⁹ PROBST *et al.*, *op. cit.* p. 1019.

⁵⁰ OKIDA, Daniella *et al.* Relationship between Land Property Security and Brazilian Amazon Deforestation in the Mato Grosso State during the Period 2013–2018. *Sustainability*, 13, 2021, 2085, pp. 1-20.

In 2017, under Temer, the Terra Legal program suffered several changes. The cutoff date was extended from December 2004 to July 2008 (in some cases even December 2011 or 2013),⁵¹ maximum property size increased from 1,500 to 2,500 hectares, proof of compliance with the Forest Code became merely self-declaratory through CAR, noncompliance with the Forest Code no longer entailed title cancellation as long as the landowner signs a conduct adjustment agreement,⁵² among other relaxations. In 2019, Bolsonaro changed the program's name to Titula Brasil and, from 2019 to 2022, in a virtually indiscriminate manner, granted nearly 370,000 conditional rural titles, the majority of which were in the Amazon.⁵³ If there was room for doubt about the potential positive environmental effects of land regularization at a time when the policy was being implemented with restrictive criteria (and, even then, with scales tipping in favor of studies that denied such potential positive effects), the link between loosening of titling conditionalities and increase in deforestation from 2017 onward is a consensus.⁵⁴ Privatization of undesignated public lands without rational eligibility criteria nor effective monitoring of cancellation clauses is not a policy for land regularization, but an official endorsement of land grabbing.

Entering into the fifth topic of this review section, the relation between credit and deforestation, we also find mixed results in the literature depending on the credit's scope, eligibility criteria and conditionalities. If used to increase production by expanding into new areas and converting forests into monocrop plantations or pastures, rural credit is thought to increase deforestation. If instead channeled to improve agricultural technology and productivity or foster agroforestry systems, credit would in principle avoid deforestation.⁵⁵ As noted by Miragaya, the two main national instruments for the financing of productive activities in the Amazon are the North Constitutional Fund (Fundo Constitucional do Norte, FNO) and the

⁵¹ CUNHA, Paulo Roberto. A política pública de regularização fundiária da Amazônia (2009): agenda, alternativas, ambiente político e a controvertida “fábula” do grilo (Doctoral Dissertation) – University of São Paulo, 2018, p. 126.

⁵² BRITO, Brenda *et al.* Stimulus for land grabbing and deforestation in the Brazilian Amazon. *Environmental Research Letters*, 15, 2020, 109501, doi: 10.1088/1748-9326/ab1e24; SAUER, Sérgio. Medida Provisória ou exceção? Decreto regulamentando a grilagem. *DataLuta* 124, 2018; BRITO, Brenda; BARRETO, Paulo. Primeiro Ano do Programa Terra Legal: avaliação e recomendações. Belém: Imazon, 2010. From 2008 to 2011 lands were sold by the maximum price on Incra's sheet.

⁵³ There are still 56.5 million hectares of undesignated public lands in the Amazon. MOUTINHO, Paulo *et al.* Destinação de Florestas Públicas: um meio de combate à grilagem e ao desmatamento ilegal na Amazônia. Brasília: Amazônia 2030, 2022.

⁵⁴ MENEZES, Roberto; BARBOSA JR., Ricardo. Environmental governance under Bolsonaro: dismantling institutions, curtailing participation, delegitimising opposition. *Z Vgl Polit Wiss*, 15, 2021, pp. 229–247; TRANCOSO, Ralph. Changing Amazon deforestation patterns: urgent need to restore command and control policies and market interventions. *Environmental Research Letters* 16(2021) 041004.

⁵⁵ ASSUNÇÃO, Juliano *et al.* The Effect of Rural Credit on Deforestation: Evidence from the Brazilian Amazon. *The Economic Journal*, 130(626), 2020, pp. 290–330.

Amazon Development Fund (Fundo de Desenvolvimento da Amazônia, FDA). Whereas the latter is more oriented to infrastructure and industrial projects, the first lends the bulk of rural credit. From 2004 to 2010, the FNO increased from BRL 1,463 million to BRL 2,578 million and FDA increased from BRL 554,600 to 1,032,599 million, while deforestation rates, as we saw, dropped from 27,772 to 7,000 km². Therefore, in Miragaya's account, credit policies could not have played a relevant role in the observed decrease in deforestation.⁵⁶

Assunção et al. reached a different conclusion. They compared credit loan contracts for crop agriculture and cattle ranching in the Amazon based on contract-level microdata covering 2003 through 2011. Their goal was to evaluate the impact of restrictions in credit policies adopted by Resolution 3,545 of February 2008 on deforestation. Also implemented in the context of PPCDAm, the resolution conditioned the concession of subsidized rural credit in the Amazon by all public banks, private banks and credit cooperatives upon proof of land titling and compliance with the Forest Code. One of the resolution's shortcomings is that the environmental conditionality can be proved with property registry in the CAR, an instrument that, due to lack of institutional structure in the states to conduct on-site validations in scale, has to date remained largely self-declaratory – 10 years after its creation in 2012, only 0,4% (29,000 properties) of all self-registered CARs in Brazil were validated.⁵⁷

Despite the fragility of the environmental conditionality (basically only embargoed properties end up excluded as noncompliant therewith), Assunção et al. concluded that Resolution 3,545 caused a reduction in total credit loans of approximately BRL 579 million and avoided 2,000 km² of deforestation from 2009 through 2011. They noted that the resolution's impact on credit was significant for cattle ranching but statistically insignificant for crop farming. This discrepancy is explained by the fact that, while the ranching sector is still dependent on official credit, alternative sources of funding through trading companies, input and processing industries, retailers and market operators have replaced official credit in the crop farming sector. Since smallholders benefited from less stringent conditions for credit concession, a stronger impact was observed in medium and large contracts.⁵⁸

Let us now turn to the sixth and last subject of this review section, the effects of command and control instruments on deforestation. In line with Miragaya's contention that the

⁵⁶ MIRAGAYA, *op. cit.*, p. 190-191. Capobianco makes a similar argument. He shows that different modalities of credit to agribusiness activities (defrayal, investment, and commercialization) experienced a general increase from 2000 to 2012 in the Amazon, even in the municipalities listed as priority to the combat of deforestation. Cf. CAPOBIANCO, *op. cit.*, p. 85-87.

⁵⁷ CENTRO DE SENSORIAMENTO REMOTO UFMG. Balanço do Código Florestal, vol 1., 2022.

⁵⁸ ASSUNÇÃO et al., *op. cit.*, p. 14-17.

80% decrease in deforestation from 2004 to 2014 was achieved not because of a potential drop in commodity prices, but *in spite of* their escalation, Assunção et al. developed a model to measure the impact of satellite monitoring and law enforcement in the overall decline of deforestation. The study used the total number of fines applied by Ibama in different municipalities as a proxy for the intensity of law enforcement, highlighting that “the knowingly low collection rates for environmental fines applied in Amazon municipalities do not interfere with [the] analysis.” Because often accompanied by other sanctioning measures such as seizure and destruction of production goods, tools and materials, and embargos of production areas, the number of fines was actually used as a proxy for Ibama’s presence and “command and control efforts as a whole.” They calculated that increased Ibama’s presence (strategically concentrated in about 50 municipalities officially listed as priority policy targets)⁵⁹ helped avoid approximately 59,500 km² of deforestation from 2007 through 2011, without adversely affecting municipality-level agricultural production.⁶⁰

The magnitude of the forest area preserved through command and control instruments (without them, deforestation would have been 75% higher in the period) led the authors to conclude that “the relative impact of monitoring and law enforcement was far greater than that of other conservation policies implemented under the PPCDAm framework.” They stressed this affirmation “does not in any way imply that other policies should not be used to combat deforestation[,]” but rather “suggests that such policies are complementary to command and control efforts, effectively deterring forest clearings at the margin, while monitoring and law enforcement contain the bulk of deforestation.”⁶¹

Assunção et al.’s conclusion, however, does not seem to have found unreserved acceptance by researchers working with quantitative causal models on deforestation and policy interventions. In 2021, for instance, West and Fearnside claimed “no rigorous study has so far successfully disentangled the effects of the mix of policy instruments on deforestation enacted since 2008.”⁶² As their critique was unaccompanied by arguments supporting the refutation, it is difficult to know what flaws could have tainted Assunção et al.’s model and to what extent the results they attribute to Ibama should be de-emphasized.

⁵⁹ ASSUNÇÃO, Juliano *et al.* Getting greener by going black: the effect of blacklisting municipalities on Amazon deforestation. *Environment and Development Economics*, 24(2), 2019, pp. 115–137.

⁶⁰ ASSUNÇÃO, Juliano *et al.* DETERring Deforestation in the Brazilian Amazon: Environmental Monitoring and Law Enforcement. *American Economic Journal: Applied Economics*, 15(2), 2023, pp. 125-156.

⁶¹ ASSUNÇÃO *et al.* *ibid.*, p. 18.

⁶² WEST, Thales; FEARNSIDE, Philip. Brazil’s conservation reform and the reduction of deforestation in Amazonia. *Land Use Policy* 100, 2021, 105072, p. 4.

In a tangential investigative venue that dissected the deterrent potential of administrative sanctions in reducing forest clearance, Schmitt found that, in 2015, whereas the average economic advantage of deforestation totaled BRL 3,000 per hectare, the average deterrence cost imposed on violators by enforcement agencies through fines, seizures and embargos equaled only BRL 38.54 per hectare.⁶³ Importantly, Schmitt's final figure for the average deterrence cost did not include losses caused by the destruction of goods, as "the computerized system from which [his] data were extracted did not display it in a structured way."⁶⁴

Mathematical formulas to isolate proxies, measure variables and run counterfactual robustness checks are tools quite dissimilar to the kind of comprehensive interpretation rooted in the notion of contextual meaning that will be employed in this dissertation. Whereas valuably revealing trends and correlations observable in large sample sizes, practically at a level of big data, the "conceptual realism" driving quantitative explanations of deforestation falls short to apprehend and elaborate upon the meaning of deforestation as a social phenomenon. The findings of the quantitative studies reviewed in this section, nonetheless, provide at least two important indications of how the research problem could be shaped and the data collection instruments fine-grained to address blind spots in the literature.

The persistent preponderance of cattle ranching in deforested areas and the continuous conversion of pasturelands into soy plantations demonstrate that, despite the recent gain in prominence of illegal mining and logging as drivers of land-use change during the Bolsonaro government, the two commodities still play an important role in the dynamics of deforestation. Moreover, of all instruments adopted under the scope of PPCDAm, command and control seems to be the one whose conditions of possibility are most taken for granted. Whereas improvements in satellite monitoring imagery are often brought to the fore and discussed in detail,⁶⁵ the incremental institutional changes that enabled environmental agencies to enforce administrative sanctions more effectively during the policy's first decade usually never occupy more than a sentence, at most a few paragraphs, in more quantitative-oriented studies. If embargoes, seizures and destructions played such a fundamental role in PPCDAm's initial success, understanding the intricacies of the institutional arrangements that made them possible

⁶³ SCHMITT, Jair. *Crime sem Castigo: a efetividade da fiscalização ambiental para o controle do desmatamento ilegal na Amazônia*. (Doctoral Dissertation) – University of Brasília, 2015.

⁶⁴ SCHMITT, *op. cit.*, p. 92.

⁶⁵ DINIZ, Cesar *et al.* DETER-B: The New Amazon Near Real-Time Deforestation Detection System. *Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 8, no. 7, 2015, pp. 3619-3628.

is a matter of academic importance. Yet, when we turn to the literature produced under the rubric of “regulatory pluralism,” we often find studies that arrive at opposite conclusions.

1.2. Regulatory pluralism

“Carrots and sticks,” “smart regulation,” “policy mix,” “win-win:” any researcher in the field of environmental regulation has surely already come across some of these expressions. They are usually deployed to prescribe combinations and sequencing of instruments based on both positive and negative incentives according to a gradual scaling of state coercion, in order to “increase the overall chances of policy success.” Gunningham and Sinclair, the two Australia-based legal scholars from whom the category was borrowed in the 1990s and later transplanted in Brazil, call “regulatory pluralism” the “underlying rationale that, in the majority of circumstances, the use of multiple rather than single policy instruments, and a broader range of regulatory actors, will produce better regulation.”⁶⁶

From their initial case study on industrial pollution with two environmental agencies in Australia and consultancy experience with voluntary approaches in the forestry and mining sectors commissioned by the Organisation for Economic Cooperation and Development (OECD),⁶⁷ the authors drew a “series of *regulatory design principles*” for policymakers – in all sectors and jurisdictions – to achieve “efficient and effective environmental policy.” These design principles prescribe that (1) “complementary instrument mixes” should be preferred over “single instrument approaches;” (2) “less interventionist measures” should be preferred – what they dub the “virtue of parsimony;” (3) instrument pyramids should include “not only government, but also business and third parties;” (4) business and third parties should act as “surrogate regulators” to achieve less costly outcomes; and (5) opportunities for “win-win outcomes” should be maximized and business should be encouraged to go “beyond compliance” with existing requirements.⁶⁸

Enveloped as they were in such decontextualized language, Gunningham and Sinclair’s regulatory design principles found ready acceptance as technical, almost universal prescriptions among part of the environmental legal scholarship in Brazil. After all, who could possibly be against more pluralism and participation, equilibrium and reasonableness, all

⁶⁶ GUNNINGHAM, Neil; SINCLAIR, Darren. Smart Regulation. In: DRAHOS, Peter (ed.) *Regulatory Theory: Foundations and Applications*. Acton: ANU Press, 2017, p. 133.

⁶⁷ GUNNINGHAM, Neil; SINCLAIR, Darren. *Leaders and Laggards: Next Generation Environmental Regulation*. Oxford: Routledge, 2002, p. ii.

⁶⁸ GUNNINGHAM; SINCLAIR, Smart Regulation, *ibid.* p. 134-135.

notions vaguely evoked by self-proclaimed win-win policies? Since the late 1990s smart regulation has thus been celebrated by a parcel of the Brazilian academia as a middle-way alternative, equidistant to both deregulation and what is often framed as excessive, outdated, and doomed to failure state interventionism.

Brazilian proponents of smart regulation see it as encompassing “flexible, creative and innovative forms of social control,” more adequate to “post-welfare-state societies.” In their reasoning, as “conventional forms” of environmental protection grounded on the legal institute of liability progressively “decay” with contemporary globalization processes, “the levels of efficacy, effectiveness, enforcement, and punitive sanction” would be gradually replaced by the “concepts of compliance, self-regulation, corporate responsibility and positive sanction.”⁶⁹

The merit of these “new” techniques would be to combine “law and development,” “tradition and innovation,” “persuasion and dissuasion.”⁷⁰ They would confer coherence and cohesion to the normative system while avoiding regulatory overlapping, antinomies, and imposition of unnecessary bureaucratic burdens. Since “there would be fewer norms” and they would “become more accessible,” regulated actors would be more prone to compliance; the bad quality of our Legislative branch being to blame for the alleged poor design of the country’s current environmental regulatory framework.⁷¹

Calls for smart regulation in Brazilian legal scholarship are seldom accompanied by in-depth case studies on environmental policy implementation. They usually brush up on examples from various sectors and jurisdictions taken from secondary literature or quote excerpts from domestic environmental laws, without looking into their application process nor relying on previous works that did so. This type of discourse would be harmless (or less harmful) as long as it remains disconnected to any implementation context (which is often the case) or at least circumscribed to the realm of industrial air and water pollution, the original field to which smart regulation concepts were tailored.

When used to interpret institutions or instruments related to land-use change in the Amazon, however, the design principles of smart regulation can have catastrophic consequences. After asserting that “non-paid reparations in the civil sphere, fines contested in the administrative sphere, or criminal sanctions with no effect contribute to the diagnosis that

⁶⁹ PUCCI, Rafael Diniz. *Criminalidade ambiental transnacional* (Doctoral Dissertation) – University of São Paulo, 2013, p. 84; 160.

⁷⁰ PUCCI, Rafael Diniz. *Incoerências das recentes políticas públicas de meio ambiente brasileiras: a insustentabilidade do desenvolvimento projetado por legislativo em crise crônica*. In: BRAGA, Ana Gabriela Mendes; BORGES, Daniel Damásio (orgs). *Aspectos Jurídicos da Crise Brasileira: o direito em face dos grandes desafios nacionais*. São Paulo: Cultura Acadêmica, 2018, p. 342.

⁷¹ PUCCI, *ibid.* p. 339; 342.

the legal system based on the idea of punitive sanction as the basic form of behavioral stimulus does not offer the sufficient bases to achieve the desired goals[,]” an advocate of smart regulation inserted a footnote referring to the fact that, between 2008 to 2011, only 0.7% of the total value of the fines applied by Ibama was collected.⁷² Instead of liability, he added, “collective construction of decisions with participation, in a restorative circle, of all [actors] involved in the [environmental] conflict,” would be a regulatory technique “better coupled to the new patterns of economic production.”⁷³

Generically evoking the low percentage of fines collected by Ibama to erase the significance of command and control instruments performed by the agency, and worse, to actively oppose their application in favor of ludicrous suggestions of the sort of restorative circles, betrays the methodological superficiality still accepted in legal scholarship among some epistemic communities. As proponents of smart regulation usually do not go deeper into the social actions considered by the legal system as environmental offenses, much less into their corresponding effectual contexts, they remain oblivious to crucial aspects of real-life conflicts that deny validity to their abstract claims for less state intervention.

When it comes to Ibama’s competence to conduct inspection operations against illegal deforestation in the Amazon, a narrow focus on fines neglects the diversity of measures taken by rangers on site aiming at the immediate economic incapacitation of the organized networks backing deforestation. As will be thoroughly discussed in chapter 7, Ibama centered its capacity-building efforts under PPCDAm on the instruments of land embargo, seizure of goods and equipment destruction as a way to circumvent one of the main obstacles to the judicial collection of fines: attachment of assets, whose low efficacy can be largely attributed to the various wealth shielding mechanisms historically employed by Brazilian agrarian oligarchies. Ibama’s incremental process of institutional strengthening was not innocuous. On the contrary, an increasing body of literature discussed in the section above acknowledges that command and control played a fundamental role in reducing Amazon deforestation rates from 2004 to 2014.⁷⁴

⁷² BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Contas do Governo, 2012, p. 14.

⁷³ PUCCI, *ibid.*, p. 339.

⁷⁴ CAPOBIANCO, João Paulo. Governança socioambiental na Amazônia Brasileira na década de 2000 (Doctoral Dissertation) – University of São Paulo, 2017; ARAÚJO, Suely. Environmental Policy in the Bolsonaro Government: the response of environmentalists in the legislative arena. *Brazilian Political Science Review*, 14(2), 2020, pp. 1-20; DE MELLO, Natália; ARTAXO, Paulo. Evolução do Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal. *Revista do Instituto de Estudos Brasileiros*, 66, 2017, pp. 108-129; BONELLI, Francesco *et al.* A atuação dos burocratas de nível de rua na implementação de políticas públicas no Brasil: uma proposta de análise expandida. *EBAPE BR*, 17, 2019, pp. 801-816; RAJÃO, Raoni; VURDUBAKIS, Theo. On the Pragmatics of Inscription: Detecting Deforestation in the Brazilian Amazon. *Theory, Culture & Society* 0(0), 2013, pp. 1-27.

Gradual development of institutional capacity to enhance enforcement instruments, however, is not a priority concern for the regulatory pluralism approach. In a policy paper published in 1998, Sergio Margulis employs patterns of interpretation similar to those prescribed by smart regulation theoreticians to evaluate Brazilian environmental policies. Instead of quoting Gunningham and Sinclair's design principles, he borrows instrument typologies (again admittedly tailored to the field of industrial and urban pollution but inadvertently extrapolated to Amazon deforestation) from World Bank and OECD guidelines.⁷⁵

After summarizing the experience of 15 countries with command and control and market instruments – dedicating one paragraph to each case, going from South Korea to Poland in a total of four pages, – he extracts three general “lessons learned.” The first regards “political feasibility: the instruments adopted by governments must be acceptable to the polluters and individual and collective affected stakeholders, otherwise they cannot be efficacious. Whatever the type of instrument, polluters must be willing to collaborate, or the result can be confrontation and prolonged lawsuits.” The second lesson concerns “economic feasibility: to determine action priorities demands to define measures able to ensure the highest gain in relation to the given goals and available resources.” The last refers to “institutional feasibility: the choice of appropriate instruments must be accompanied by the ability to implement agencies capable of undertaking complex tasks [...]. *Given the weakness of environmental control institutions in developing countries, instruments that require less institutional capacity should be preferred*” (my emphasis). He goes further:⁷⁶

Developing countries basically copied their environmental laws from OECD countries [...]. Laws could be easily copied, but strengthening institutions in developing countries to levels comparable to the OECD would require resources never available in these countries. The question then is: Why didn't developing countries move more quickly to other, more flexible, less institutionally demanding, and more market-oriented instruments?

Leaving aside the question of to what extent the environmental laws adopted until the 1990s by the then-called developing countries were transplanted from OECD countries,⁷⁷ what strikes as particularly strange is the argument's vicious circle logic: instead of striving to build institutional capacity and bridge the implementation gap in a more definitive sense, developing

⁷⁵ MARGULIS, Sergio. *A regulamentação ambiental: instrumentos e implementação*. Brasília: Ipea, 1996, p. 7.

⁷⁶ MARGULIS, *op. cit.* p. 15. His answer to this question firstly mentions “lack of economic discipline,” meaning the persistence of economic informality, as a reason why developing countries fail in adopting market instruments.

⁷⁷ Hochstetler and Keck argue that Brazilian environmental laws were adopted primarily through the work of national actors and fueled by national concerns. Their book will be thoroughly discussed in section 1.4. Cf. HOCHSTETLER, Kathryn; KECK, Margaret. *Greening Brazil: Environmental Activism in State and Society*. Durham: Duke University Press, 2007.

countries should surrogate regulatory responsibility to the market and continue to have weak institutions. That this kind of self-fulfilling prophecy was at the time actively endorsed by the World Bank comes as no surprise.⁷⁸ Enough resources will never be available to developing countries anyway, so why then even bother trying to build decent institutions?

Corroborating my argument that manifesto claims for smart regulation do not survive serious empirical research, when the same Margulis, six years after writing the abovementioned report, undertook his famous in-depth case study on the microeconomics of cattle ranching in the Amazon, he was much more sensible to the complexities and nuances of the real socio-environmental conflicts at stake and much more careful in drawing policy recommendations to halt deforestation. His finding, supported by evidence from farm interviews in areas of “consolidated frontier,” that cattle ranching in the Amazon was profitable independently from speculative gains, and that sustainable alternatives had been so far “unable to compete *from a private producer’s point of view*,” confronted the then prevailing idea that the activity had low profitability and was mainly practiced as a means to securing land possession for speculation. Margulis closed the study with very different considerations from those of his previous report:⁷⁹

Whatever the economic incentives, they will certainly call for greater enforcement capacity. [...] To ensure more effective action an institutional cooperation strategy is fundamental. Institutions such as the MMA, IBAMA, ADA, the Ministry for Regional Development (Integração Nacional), the Ministry of Planning, INCRA, FUNAI, and state governments need to work together, agreeing on common targets and defining individual functions.

At the core of this radical shift in perspective lies the understanding, arising from an immersion in the ranchers’ circumambient world, that the only factor capable of outweighing the motivation of potential profit in the decision to grab a public plot of land, clear the forest and convert it to pasture is a higher perception of risk. Risk that their products will be seized or suffer commercial embargos, risk that their land ownership will be contested and they will not be able to withstand eviction.⁸⁰ Consumer pressure may also appear to private actors engaged in deforestation as a risk. Ultimately, however, the way to imprint on these actors the expectation that, if such risks materialize, they will most probably result in real consequences,

⁷⁸ From 1991 to 1993 the World Bank’s Chief Economist was Lawrence Summers, known for a controversial memorandum leaked on the eve of Rio 92. In the restricted circulation memo, Summers explicitly questions whether the World Bank shouldn’t encourage the migration of polluting industries to poor countries, since the lower life expectancy of their inhabitants would make them less susceptible to the effects of pollution and the death of workers would be less costly than in rich nations. Cf. THE NEW YORK TIMES. Furor on Memo on World Bank. Available at: <<https://www.nytimes.com/1992/02/07/business/furor-on-memo-at-world-bank.html>>. Accessed on 8 November 2022.

⁷⁹ MARGULIS, Sergio. Causes of Deforestation of the Brazilian Amazon. World Bank Paper no. 22, 2004, p. 65.

⁸⁰ MARGULIS, *ibid*, p. 23.

is through the work of state enforcement institutions. Even voluntary environmental agreements between private parties depend heavily on the state for their performance, at the very least to ensure that market-led embargos are not being rigged on the ground.

The stance I take on this research departs from the premises of regulatory pluralism in the sense that, while not disregarding the role of positive incentives nor the potential of consumer pressure, it places institutional capacity-building and enforcement instruments at the center of the question of how to restrain the expansion impulse over the forest. Command and control tools should not be regarded as the top of a pyramidal scale of instruments to be used in descending order of interventionism, only after the failure of voluntarism and market mechanisms. On the contrary, a well-established command and control apparatus is the very basis upon which a solid regulatory framework can be built to address the historically intertwined socio-environmental problems of land grabbing, land concentration, deforestation, and displacement of indigenous and traditional communities in the Amazon region. Moreover, the very possibility of deploying command and control as a last resource, as implied in the “virtue of parsimony” principle, presupposes prior construction of state capacity, something by no means trivial to achieve, especially in post-colonial societies. Calls for smart combinations that “go beyond” dualisms do not adequately capture the complexity of these challenges.

1.3 Strategic legal action

The stream of literature herein called “strategic legal action” takes very seriously the role of institutions in bringing about social and environmental change. Their focus, however, is not on executive agencies but on judicial courts and *Ministério Público*, a quite peculiar Brazilian institution with unique attributions in relation to comparable bodies in other countries. Alongside courts and *Ministério Público*, these studies also accentuate the role of non-governmental advocacy coalitions as plaintiffs or *amici curiare* in judicial lawsuits.

The work of Leslie McAllister, particularly influential among foreign scholars writing about Brazilian environmental legislation, is a fine example of empirical research with an institutional focus on the *Ministério Público*, while simultaneously relying on premises that stand halfway to the regulatory pluralism approach. Just like Margulis in 1998, the author starts from the ubiquitous narrative of a primordial, enduring failure of developing countries to effectively implement their “strong in paper” environmental regulations: “[t]he story of environmental law in developing countries is often a story of laws that fail to achieve their state goals. Forestry laws guarantee preservation of rainforests while massive deforestation

occurs.”⁸¹ Also similarly to Margulis’ previous report, McAllister sees the institutional weakness of administrative agencies as the main reason for this failure.⁸²

Environmental regulation fails in developing countries for many reasons. Often, the proximate cause involves the limited capacity of regulatory agencies. [...] Regulatory agencies may lack staff, or the staff may be inadequately trained or equipped. They may not have the technical expertise to develop appropriate standards and conduct effective inspections. Agency staff may be poorly paid, creating conditions for corruption. Often, environmental agencies are the poor relations among governmental agencies, particularly agencies responsible for economic development.

The pitiful situation of overall financial and moral degeneration in which environmental agencies would find themselves, in McAllister’s account, opened space for “a new type of actor in environmental protection:” public prosecutors. While regulatory agents are portrayed as more prone to corruption, lacking specialized knowledge, and chronically inefficient, prosecutors are depicted as “smart and idealistic,” “with a reputation for integrity and professionalism”, “motivated and energetic,” “very independent” and “sheltered from politics,” “generally respected and admired,” “the best and brightest,” “often graduates of the country’s best law schools.” The incarnation of righteousness itself, prosecutors would have redeemed Brazil’s failed environmental legislation by developing “a new mode of enforcing environmental law,” which the author dubs “prosecutorial enforcement.”⁸³

Prosecutorial enforcement relies on three main instruments: civil investigations, conduct adjustment agreements and public civil actions. These tools pivot on Ministério Público’s constitutional competence to defend society’s “collective rights,” and will be discussed in more depth in chapter 7. It should suffice to point out here that prosecutorial enforcement is regarded by a non-negligible parcel of the literature as an *alternative* to the exercise of police power by regulatory agencies. In McAllister’s explicit formulation: “[g]iven their ability to affect public policies, the Ministério Público and judiciary may act as a ‘substitute’ for executive and legislative institutions that are not perceived by the public or by prosecutors as fulfilling their missions.”⁸⁴

The prosecutorial tool McAllister is most enthusiastic about is the conduct adjustment agreement, whereby Ministério Público does not seek to punish the violator but to impose preventive, compensatory and/or reparatory measures without resorting to formal judicial action. This more cooperative enforcement approach would provide an “appropriate mix of

⁸¹ MCALLISTER, Lesly. *Making Law Matter: Environmental Protection and Legal Institutions in Brazil* Redwood: Stanford University Press, 2008, p. 1.

⁸² MCALLISTER, *ibid* p. 3.

⁸³ MCALLISTER, *ibid* p. 4-5; 13; 16; 78; 82.

⁸⁴ MCALLISTER, *ibid* p. 174.

extrajudicial and judicial means of resolution” and “add several layers to the enforcement pyramid,” enabling a mitigation of interventionism that environmental agencies centered on command and control would not be capable of surmounting. The benefits of conduct adjustment agreements would include “legal uncertainty, lower compliance costs, and less defensiveness among regulated entities.”⁸⁵ Their only Achilles heel would be, she contends, unresponsive courts. Because Ministério Público’s bargaining power to negotiate conduct adjustment agreements ultimately depends on “the perceived willingness of the courts to rule favourably in public civil actions[,]” if public civil actions are not filed or are lost in the judiciary, the instrument’s “overall effectiveness may decline.”⁸⁶

Notwithstanding this potential shortcoming, McAllister’s final diagnosis (after purveying the interaction between Ibama and Ministério Público in the states of São Paulo and Pará, with a reliance on interviews and documental sources) is that prosecutorial enforcement not only “contributes significantly toward the effectiveness of environmental law” but also “contributes to the cultural foundation of rule of law.” An important achievement for a developing country that would be historically plagued by a “long-standing absence of legalism[,]” pervasive impunity and rampant corruption.⁸⁷

The work of Ministério Público is regarded as positively “apolitical” and fundamental to overcoming a certain built-in ineffectiveness of environmental agencies, whose absence of institutional capacity is attributed to, besides ever-present corruption, understaffing, and lack of expertise, a sort of self-induced paralysis, which comes in the form of deliberate political interference. In the face of “pervasive tension between environmental and economic development goals in the political realm,” governments in developing countries tend, in the author’s account, to prioritize the latter at the cost of the first. A very different situation would be observable in developed countries, where “regulatory approaches for pollution control and natural resource management succeeded[.]”⁸⁸

Let’s leave aside for a moment the heated issue of academic decoloniality, and how the scheme of *failure, absence or lack* remains to this day the narrative thread per excellence guiding many Global North interpretations of Global South societies. This topic will be addressed again below, when we review the literature on transnational actors in the next subchapter. A second problematic assumption underpinning McAllister’s depiction of

⁸⁵ MCALLISTER, *ibid* p. 92.

⁸⁶MCALLISTER, *ibid* p. 172.

⁸⁷ MCALLISTER, *ibid* p. 15; 181.

⁸⁸ MCALLISTER, *ibid* p. 1.

prosecutors and, to a lesser extent, judges, as successful environmental enforcers consists in entertaining the idea that judicial actors are not only able to partially compensate or limit the legislative and executive branches but to fully *surrogate* their attributions. This belief seems to be connected with a certain confusion evoked by the polysemy of the word “enforcement,” which, as McAllister insightfully underscores, has no obvious correspondence in other languages;⁸⁹ *aplicação* and *execução* are the most common translations in Portuguese.

While it is uncontroversial that judicial decisions (and contracts, of which conduct adjustment agreements are a type) *apply laws*, in the sense of subsuming an abstract and general norm to a concrete and particular case, to what degree this application has any real impact on the behavior of actors outside the proceedings is a completely different matter. When inquiring about the influence of norms on social actions, we exit the normative level of application and enter into the realm of *efficacy*, which requires data collection techniques capable of grasping according to what patterns of meaning the concerned actors orient their behavior. Alongside improved indicators of environmental quality, an increase in the number of civil investigations, conduct adjustment agreements, and public civil actions carried out by the Ministério Público⁹⁰ could be a sign of more efficacious law enforcement. Alone, however, these figures tell little about to what extent violators have truly changed their actions toward prevention, compensation or reparation of environmental damages, or whether the agreements and judicial rulings have actually been repeatedly breached without punishment.

If the limitations of the judicial system to change the conduct of private individuals and companies are not difficult to behold, when it comes to lawsuits aiming to compel the Executive to act, they are even more prominent. Although arm-wrestling situations between courts and executive branches did not go unnoticed by the growing body of literature on climate change litigation, the conditions and circumstances under which activist courts can overpower reluctant governments and generate significant change were not yet sufficiently taken into account by these studies. This was the conclusion reached by Setzer and Vanhala after reviewing 130 academic publications on climate litigation:⁹¹

To date, the literature has provided very little evidence of the extent to which the growing number of cases and the development of strategies and doctrines are either driving action to address climate change or creating awareness of the issue. [...] Demonstrating impact—however it is defined—requires painstaking research work in terms of establishing the causal chains between a legal case on the one hand, and the different forms of impact on the other. This work also has to address alternative explanations that might account for the change but that lie outside of the legal case.

⁸⁹ MCALLISTER, *ibid* p. 21.

⁹⁰ MCALLISTER, *ibid* p. 119.

⁹¹ SETZER, Joana; VANHALA, Lisa. Climate change litigation: A review of research on courts and litigants in climate governance. *Wiley Interdisciplinary Reviews: Climate Change*, 10(5), e580, 2019, pp. 1-19.

Conscious of how difficult it is to assess “the impacts of litigation beyond the courtroom,” the authors suggest the qualitative technique of process tracing as offering an adequate “framework for analyzing causal relationships between antecedents and outcomes.”⁹² A discussion about sociological causality and its pertinence or pointlessness in assessing the efficacy of a legal norm cannot take place here. What concerns us are the legal dogmatic premises according to which the literature on climate litigation frames the topic of Amazon deforestation. Taking a paper by Setzer in co-authorship with de Carvalho as representative of this stream of scholarship, we read that the “new wave of climate litigation in Brazil” is part of an emerging worldwide “‘rights-turn’ in climate litigation,” and a global “movement of constitutionalization through courts[,]” as well as a “group of cases being brought in the Global South that target the poor enforcement of domestic climate and forestry legislation.”⁹³

The specific case they analyze, *Instituto de Estudos Amazônicos (ISA) v. Brazil*, filed before the Lower Federal Court of Curitiba, is regarded as particularly relevant because it “seeks not only an order to compel the federal government to comply with national climate law but also the recognition of a fundamental right to a stable climate, for present and future generations, under the Brazilian Constitution.”⁹⁴ This second, bolder claim would elevate the case to the higher doctrinal discussion around climate constitutionalism. The authors offer a compilation of the most common arguments raised by the literature to justify the relevance of the judicial recognition of an until then “unenumerated” constitutional right to a stable climate. Three of these justifications stand out: that constitutions would be “more durable than ordinary laws”; that constitutional climate provisions would “increase the credibility of commitments on climate change made by states”; and that constitutions would, “as part of the supreme law of the land,” “guide public discourse and behavior[,]” having, therefore, “more likelihood of compliance” than ordinary statutes.⁹⁵

The second justification, predicated on the diplomatic value of constitutional provisions vis-à-vis other states, international organizations and foreign investors, in view of how the semantic framework of modern constitutionalism attained a halo of “comprehensiveness” and “universality,”⁹⁶ seems plausible. The two others, however, have

⁹² SETZER; VANHALA, *op. cit.* p. 12.

⁹³ SETZER, Joana; DE CARVALHO, Délton Winter. Climate litigation to protect the Brazilian Amazon: Establishing a constitutional right to a stable climate. *Review of European, Comparative and International Environmental Law*, 30(2), 2021, pp. 197-206, p. 198.

⁹⁴ SETZER; DE CARVALHO, *op. cit.* p. 3.

⁹⁵ SETZER; DE CARVALHO, *op. cit.* p. 5-6.

⁹⁶ NEVES, Marcelo. *Symbolic Constitutionalization*. Oxford: Oxford University Press, 2022, p. 39.

been empirically and theoretically challenged. A long-term investigation on comparative constitutional law, which claimed to have “identified and collected the texts of nearly all national constitutions from 1789 onward,” – considering all documents that either “are identified explicitly as the *Constitution*, *Fundamental Law*, or *Basic Law* of a country; or contain explicit provisions that establish the documents as highest law [...]; or define the basic pattern of authority by establishing or suspending an executive or legislative branch of government[,]” – found that the average life expectancy of a constitution is 19 years.⁹⁷

If we narrow it down to the Brazilian context, the assumption that constitutions live longer than ordinary statutes may be even more misleading. The National Environmental Policy provides a good example. Enacted in 1981, the statute outlived the regime transition from a military dictatorship to democracy, and has been multiple times amended since then. Today this statute is not only unambiguously considered compatible with the Federal Constitution of 1988⁹⁸ (the seventh constitutional text adopted by the country since its independence in 1822) but widely regarded as a cornerstone of Brazilian environmental regulation. Such acknowledgment is, to a great extent, due to the fact that the statute enables and regulates civil society’s participation in the policy process through the National Environmental Council (Conama). Conama will come back to our attention a few paragraphs below, also as an example of the limitation of judicial review as a substitute for executive power.

As for the third justification – that constitutions tend to have higher levels of compliance than ordinary statutes, – a brief excursion into some elements of Marcelo Neves’ theory of symbolic constitutionalization helps to clarify why it does not hold water. To the extent that constitutions establish “internal criteria not only for concrete application of the law but also for the establishment of general legal norms[,]” they function as the “broadest reflexivity mechanism” of a legal system and, in this sense, one can speak of a hierarchization of constitutional over statutory provisions. However, as the meaning of constitutional norms can only be determined with reference to infraconstitutional law, “absolute hierarchization does not pertain.” Rather, one observes a certain “circularity” or “hybrid relation” between constitutional and infraconstitutional norms, “between creation and application of law.”⁹⁹

⁹⁷ ELKINS, Zachary; GINSBURG, Tom; MELTON, James. *The Endurance of National Constitutions*. Cambridge: Cambridge University Press, 2009, p. 1-2, 49.

⁹⁸ For an example of doctrinal discussion arguing for the reception of Law N° 6.938/1981 (the National Environmental Policy) into the democratic legal order inaugurated in 1988, despite the absence of an explicit decision confirming its constitutionality by the Federal Supreme Court, cf. MACHADO, Paulo. *Direito Ambiental Brasileiro*. 27th ed. Salvador: Jus Podivm, 2020, p. 163.

⁹⁹ NEVES, *op. cit.* p. 49.

In other words, it is hard to imagine a situation of “direct compliance” with the constitution without the mediation of some kind of infraconstitutional provision. As will be discussed in chapter 10, when, amidst the dismantling measures imposed by the administration of Jair Bolsonaro, Ibama’s agents forced the execution of inspection operations in the Amazon against the will of military officials and political appointees, many justified their actions by referring to the Constitution. The agents’ attitude, nonetheless, was backed by a thick chain of statutes and executive orders, which shaped their horizon of possibilities and oriented their actions. When abiding by a certain interpretation of the Constitution, they were also complying with a manifold of infraconstitutional texts and vice-versa. Likewise, to steer behavior, a fundamental right to a stable climate recognized by a constitutional court would inevitably have to be followed by ordinary statutes detailing its content in terms of reciprocal obligations, based on the structure “who should do what, where and when.”¹⁰⁰

There is a second reason, moreover, why it is inadequate to conceive constitutional norms as enjoying more likelihood of compliance than ordinary statutes. Neves contends that all law, constitutional or otherwise, has both a normative and a symbolic function. Law’s normative function is twofold: “to steer behavior” and “to stabilize expectations.” While the first implies regulation of agency and is thus bound to the sphere of “acting,” the latter refers to the possibility of anticipating the actions of others and belongs to the sphere of “experiencing,” one and the other being reciprocally conditioned, ““since no experience is accessible without action, and no action is comprehensible without consideration of the actor’s experience.””¹⁰¹

Law’s symbolic function, in its turn, “is not oriented to a linear relationship between means and ends,” but can be “distinguished by its mediate and latent meaning.” This mediate, latent meaning, in Neves’ account, usually fulfills one or more of the following functions: to reaffirm social values, either as a means of differentiating groups or entailing gestures of cohesion; to provide “a dilatory compromise formula,” “postpon[ing] political conflict without genuinely resolving underlying social problems”; or to forfeit an “alibi” for the powers that be, “reliev[ing] the political system of concrete social pressures” without the creation of minimal conditions to satisfy the citizens’ demands.¹⁰²

¹⁰⁰ LINDAHL, Hans. *Authority and Globalisation of Inclusion and Exclusion*. Cambridge: Cambridge University Press, 2018, p. 55.

¹⁰¹ NEVES, *op. cit.* p. 35.

¹⁰² NEVES, *op. cit.* p. 36.

When the symbolic function of a constitution substantially outweighs its normative function, that is, when the concretization of constitutional programs is so systematically frustrated to the point of eroding the legal system's normativity as a whole, one could speak of "symbolic constitutionalization."¹⁰³ Arguably, this is the case of many fundamental social rights posited by the Constitution of 1988, among which the most detached from reality – a detachment often camouflaged via deformation of the doctrinal concept of programmatic norms¹⁰⁴ – is perhaps the right to a minimum wage able to attend a worker's "basic vital needs and those of her family with housing, food, education, health, leisure, clothing, hygiene, transportation and social security[.]"¹⁰⁵

Without "deep-seat transformations in power relations and the social structure," notably the institutionalization of mechanisms that abolish the privileges of "over-integrated" citizens and promote the inclusion of "under-integrated" citizens, the "symbolically inclusive constitutional text clashes with the exclusionary constitutional reality," and no generalized concretization of fundamental rights takes place. Admittedly, symbolic constitutionalization can play a relevant role in raising awareness about an issue. But even such potential positive effects cannot be dissociated with the danger that constitutionalization ends up "serving only to immunize the political system against alternatives," while "the solving of problems is deferred until a remote future."¹⁰⁶ It should be emphasized that the hypertrophy of law's symbolic function by no means is exclusive to Global South societies, so often described as devoid of rule of law. Gerard Rosenberg's multiple-case study on a set of social changes whose merit is historically attributed to American courts (civil rights, abortion, reapportionment, changes in the criminal system and in environmental regulation) provides solid empirical evidence of how judicial decisions in the United States often had no grip in reality because courts lacked tools to force state governments to act.¹⁰⁷

I took this brief theoretical detour to dispute the claim that constitutions have more likelihood of compliance and thus offer a privileged venue to promote social change. This is not the same as arguing that the right to an ecologically balanced environment posited by the Constitution of 1988 is hypertrophically symbolic. On the contrary, one of the dissertation's goals is precisely to dig deeper into the institutionalization of mechanisms that allowed for the

¹⁰³ NEVES, *op. cit.* p. 68.

¹⁰⁴ NEVES, *op. cit.* p. 78.

¹⁰⁵ BRAZIL. Federal Constitution of 1988, article 7, IV.

¹⁰⁶ NEVES, *op. cit.* p. 67, 69

¹⁰⁷ ROSENBERG, Gerald. *The Hollow Hope: Can Courts Bring About Social Change?* Chicago: University of Chicago Press, 1991.

curtailment of particularist power and expansion of public power underlying the 80% reduction of deforestation in the Amazon from 2004 to 2014, a figure that indicates a movement toward the circumstantiated concretization of constitutional environmental rights.

Such mechanisms, however, were not primarily construed by courts but by executive agencies. In the opportunities that Brazilian courts had to rule on matters related to deforestation inspections, they either sided with environmental violators, or they produced very limited effects for ultimately lacking tools to force the Executive to act, or they succeeded *because* strategically used as leverage, shield, cover, or excuse by environmental agents who were already willing to act.¹⁰⁸ The first and third kinds of decisions will be discussed in chapter 8. As for adjudicative moments that, despite being celebrated as groundbreaking, produced more symbolic than normative effects, a couple of words about two examples may be fitting here.

Since Jair Bolsonaro took presidential office in January 2019 and, in April of the same year, extinguished PPCDAm (along with practically all environmental policies then in place, as we will see in chapter 3), civil society and the Ministério Público have flooded the judiciary with lawsuits seeking to quash Bolsonaro's executive orders and revert some of the damages resultant thereof. At the constitutional level, at least seven claims of unconstitutionality (named by environmental journalists with the catchword "green package") were filed before the Supreme Court by NGOs and left-green political parties.

One of them in particular (ADPF 760) has been called "Brazil's biggest climate litigation case." The plaintiffs claim for the Court to oblige the federal government to immediately restore the implementation of PPCDAm and put into practice actions that can limit deforestation in the Amazon to a maximum of 3,925 km² in 2021. The case was filed in November 2020. In March 2022 Justice Cármen Lúcia, the reporting judge, issued what was immediately acclaimed as a "historical opinion," recognizing an unconstitutional state of affairs regarding illegal deforestation in the Amazon, resultant of "actions and omissions perpetrated by the federal Executive that paralyze and undermine the effective and sufficient execution" of the PPCDAm. She ordered Ibama and other executive agencies to "formulate and present a plan for the effective and satisfactory execution of PPCDAm[.]" The plan must be submitted to the Federal Supreme Court within sixty days after the Court's final decision comes into effect – that is, after Justice Cármen Lúcia's ten other peers issue their concurrent or dissenting

¹⁰⁸ ROSEMBERG, *ibid* p. 21; 35: "Constraint III: Courts lack the tools to readily develop appropriate policies and implement decisions ordering significant social reform." "Condition IV: Courts may effectively produce significant social reform by providing leverage, or a shield, cover, or excuse, for persons crucial to implementation who are willing to act."

opinions, and if a majority sides with her. The plan must expressly include “chronograms, goals, objectives, deadlines, projection of results with dates and expected dates and indicators,” which must be in line with a set of parameters set by the decision. These parameters establish a 3,925 km² deforestation limit for the year 2023, a specific plan for the strengthening of Ibama and other institutions, the bi-weekly publication of open reports, and the submission of monthly follow-up reports to a judicial observatory.¹⁰⁹

The same day Justice Cármen Lúcia released her opinion, Justice André Mendonça, who had recently been appointed by Bolsonaro, solicited what in the practitioners’ jargon is called *pedir vista*. As in Brazil Supreme Court justices announce their opinions individually, each of them is allowed to retain the case for 30 days to examine it before concurring or dissenting with the reporting judge’s opinion. This in-house deadline of 30 days, however, is frequently disrespected without any sanction, as the court’s agenda is actually decided according to political criteria of expediency in informal negotiations between the justices and other interested actors. Taking advantage of this unwritten rule to benefit the Bolsonaro government, Justice André Mendonça managed to indefinitely postpone a final decision by keeping ADPF 760 in his drawer since March 2022, without any indication of when he will release his opinion. In the meanwhile, Ibama and ICMBio continued to be subject to forced paralysis and deforestation grew. Just in 2021, the Amazon lost 13,038 km² of vegetation.¹¹⁰

Besides the mismatch between the slow pace of adjudication (further deaccelerated by political bargaining mechanisms influencing the Supreme Court's agenda-setting) and the fast rhythm of forest removal, the judiciary’s lack of tools to ultimately force the executive to restore environmental policies also poses a limitation to the former’s transformative capacity. This constraint finds an apposite illustration in the constitutional cases concerning civil society participation in environmental policies (ADI 6,121 and ADPF 623).

In April 2019, Jair Bolsonaro extinguished via presidential decree all collegiate bodies within federal public administration in which civil society took part.¹¹¹ This meant the immediate discontinuation of Conama and the Permanent Interministerial Working Group responsible for coordinating and executing PPCDAm, as well as the complete stoppage of the Amazon Fund, a crucial source of funding for the policy. Left-green parties questioned the

¹⁰⁹ BRAZIL. Federal Supreme Court. Justice Cármen Lúcia’s opinion in the constitutional claim ADPF 760. Available at: <<https://www.stf.jus.br/arquivo/cms/noticiaNoticiaStf/anexo/VOTOADPF760.pdf>>. Accessed on 10 October 2023.

¹¹⁰BRAZIL. Available at: <http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/rates>. Accessed on 7 November 2022.

¹¹¹ BRAZIL. Decree No. 9,759/2019.

constitutionality of the decree in the Supreme Court. In a preliminary decision, the Court suspended the decree's effects solely in relation to collegiate bodies that were created by statute (law voted by the legislative, the case of Conama), preserving the decree's effects in relation to collegiate bodies that were created by other sources of legislation, such as presidential decrees (the case of the Permanent Interministerial Working Group and the Amazon Fund). The ruling ordered the federal government to comply with only one extra task so that the collegiate bodies created by norms other than statutes could be lawfully extinguished. Instead of issuing a generic decree with an umbrella wording discontinuing "all collegiate bodies within public administration", the government should issue a specific decree explicitly mentioning which collegiate bodies were to be discontinued.

In response to the Court's decision, in May 2019 Bolsonaro issued a second decree reducing from 93 to 23 the number of voting seats in Conama,¹¹² and, in November 2019, two other decrees expressly revoking the creation of PPCDAm's working group¹¹³ and the Amazon Fund.¹¹⁴ All of them had their constitutionality once again questioned in the Supreme Court, respectively in ADPF 623, ADPF 760 (commented above), and ADO 59. The latter is still pending judgment, and the Fund's resources were blocked by the donors. With regards to the lawsuit to restore Conama's full composition, in December 2021 the Supreme Court issued a preliminary ruling suspending the decree that reduced the council's voting seats. In response, Bolsonaro simply issued another decree in March 2022¹¹⁵ reducing the council instead to 36 voting seats and still distributing a majority of chairs to government officials. As a result, civil society representatives continued to be outvoted in the meetings and a disproportionately partisan Conama kept on deregulating the infra-legal environmental framework for which they are competent.

What the constitutional cases on Conama, PPCDAm's working group, and the Amazon Fund teach us, in my judgment, is that the judiciary's ability to promote change in environmental issues is much more limited than often acknowledged by the literature on strategic litigation. Elected politicians and politically appointed officials have practically endless means of sabotaging judicial decisions, while courts ultimately lack powers to counterweight their unwillingness to act. Only when there already are environmental agents willing to implement policies can judges make a striking difference, by helping to remove minor

¹¹² BRAZIL. Decree No. 9,806/2019, challenged in ADPF 623.

¹¹³ BRAZIL. Decree No. 10,142/2019, challenged in ADPF 760.

¹¹⁴ BRAZIL. Decree No. 10,144/2019, challenged in ADO 59.

¹¹⁵ BRAZIL. Decree No. 11,018/2022.

but lingering obstacles or providing officials with some sort of protection, leverage or cover against the political forces that hinder change.¹¹⁶ For this condition to be observable in the abovementioned cases, the Supreme Court should have been able, for instance, to protect the Ibama and ICMBio servants from the various administrative punishments that were imposed on “resistant” agents by Bolsonaro’s appointed officials (more about it in chapter 10). Such type of protection, however, was much beyond the scope of the justices’ decisions. The predominately symbolic effects of the constitutional rulings on the “green package” recall Rosenberg’s contention that a court’s contribution is “more like the cutting of the ribbon on a new project than its construction[,]”¹¹⁷ akin to the recognition of an evolving state of affairs rather than the creation of new conditions that enable social transformations.

The approach I take on this research diverges from the literature focused on legal actors (prosecutors and judges) for – while not disregarding the potential positive effects of conduct adjustment agreements and judicial decisions – I turn to executive agencies and their everyday practices of policy implementation as a privileged venue to investigate the changes that enabled the initial 80% decrease in Amazon deforestation rates from 2004 to 2014. It was primarily through the regular exercise of territorial governance and police power by the Executive, and only secondarily by prosecutorial agreements and judicial decisions, that the normative function of the constitutional right to an ecologically balanced environment was concretized *in those particular historical circumstances*. This by no means suggests that strategic legal action is inconsequential to trigger relevant social change in any context or jurisdiction. What is argued is that (1) prosecutorial agreements and judicial decisions cannot fully surrogate the exercise of police power; and (2) *in the specific case of the 80% reduction of deforestation in the Brazilian Amazon between 2004 and 2014*, executive enforcement had a larger share of credit than prosecutorial enforcement. Instead of substitution, one should speak of complementarity between the two modes of concretizing constitutional rights. Duly coordinated, strategic legal action can shield the achievements of executive enforcement against particularist reactions, especially in cases where committed state actors seek judicial endorsement as a means to legitimize their actions before regulated subjects and civil society as a whole. We will address fruitful examples of judicial and prosecutorial backing of executive measures in chapter 8.

¹¹⁶ ROSEMBERG, *op. cit.* p. 342.

¹¹⁷ ROSEMBERG, *op. cit.* p. 338.

1.4 Transnational actors

Another stream of qualitative research seeking to evaluate the impact of different social actors on the creation and implementation of environmental norms regarding the Amazon pays special attention neither to Brazilian courts and prosecutors nor to executive agencies, but to transnational actors, an umbrella category encompassing different kinds of institutions and networks. From multilateral organizations such as the World Bank to mega international events such as the United Nations Conference on Environment and Development (UNCED) in 1992, going through international cooperation initiatives like the PPG7 and instances of exchange between environmental activists of different countries, the units of analysis to examine the role of transnational actors are multiple.

To understand how a parcel of these studies frames the performance of Brazilian institutions and their interaction with international actors, this section discusses Hochstetler and Keck's prize-winning book on the Brazilian environmental movement. Particularly influential among the literature written in English on the topic, it also provides an interesting entry point to assess the patterns of interpretation shaping assessments of Brazilian environmental politics that have an analytical focus on transnational actors.

Hochstetler and Keck sought to identify the mechanisms characteristic of the interaction between domestic and international actors and to evaluate the Brazilian environmental politics and policy resulting thereof.¹¹⁸ From the outset, they outline three key concepts upon which the endeavor is structured: norm diffusion, boomerang strategy, and politicized state. Norm diffusion refers to "how norms are collectively generated or constructed in the international arena and then transmitted to domestic societies."¹¹⁹ Boomerang strategy, a category coined in one of the authors' earlier work, denotes a "pattern of influence" characteristic of transnational advocacy networks, in which domestic activists seek international connections to bypass blocked state channels.¹²⁰ This strategy, as the authors readily acknowledge, is adversarial. Not only "governments may resent for the international pressure and loss of sovereign control that it brings[,]"¹²¹ but also domestic activists, should the government change and a more open political coalition come to power, may regret the

¹¹⁸ HOCHSTETLER, Kathryn; KECK, Margaret. *Greening Brazil: Environmental Activism in State and Society*. Durham: Duke University Press, 2007, p. 3. Their data collection techniques were mainly interviews conducted "during close to fifteen years of attending meetings and events in Brazil during visits made at least annually."

¹¹⁹ HOCHSTETLER; KECK, *op.cit.* p. 3-4; 6.

¹²⁰ KECK, Margaret; SIKKINK, Kathryn. *Activists beyond Borders: Advocacy Networks in International Politics*. New York: Cornell University Press, 1998, p. 12.

¹²¹ HOCHSTETLER; KECK, *op.cit.* p. 166.

asymmetric information sharing with international actors, whose agenda is not necessarily committed with the enhancement of institutional capacity at the national level.

“Politicized state” is a term borrowed from Douglas Chalmers, who originally coined it in 1977 in opposition to the idea of “institutional regimes.” According to Chalmers, the former would be typical of Latin America, whereas the latter would be found in Western countries. By “politicization” he meant a “continuous redefinition of groups, classes and interests,” as well as “the possibility of exerting effective influence outside established procedures[,]” resulting in “that the policymaking process is potentially created anew for each decision[.]” Institutional regimes, in contrast, would display a “constant tendency to establish a fixed and recognized set of legitimate participants, set arenas for action, and rules for decision.”¹²² Central to Chalmers’ contention, therefore, is the presupposition that informal social and political networks operate very differently in Latin America than they do in Western Europe and North America, where institutions are imagined to work with higher degrees of formality, consistency and stability.¹²³

For Hochstetler and Keck this assumption is so evident that it can be considered proved by a quick comparison between the number of political positions under the control of the president in Brazil (allegedly more than 20,000) and the number of jobs at the disposal of the U.S. president (“several thousand”), Japan’s prime minister (“several dozen”), and the United Kingdom’s prime minister (12, in their account). This association, however, does not convey enough context for the reader to verify if and to what extent such numbers represent comparable phenomena. In the Brazilian quota of more than 20,000 positions, the authors included all federal jobs filled through political appointment, three-quarters of which cannot be filled by complete outsiders but must be recruited from “people who had in fact passed the civil service exam,” as the authors themselves recognize.¹²⁴ Moreover, the majority of federal positions included in the calculation are not directly nominated by the president but by ministers, secretaries, directors, and other authorities in descending hierarchical order within the structure of the Executive branch. It seems very unlikely that the number indicated by the authors as referring to Japan and the United Kingdom equally included appointments made by politicians other than the prime minister. It is also not clear if this figure somehow takes into consideration the differences between appointing outsiders, hiring tenured employees through civil service exams, and contracting temporary personnel. Consequently, the book does not provide a solid

¹²² CHALMERS, Douglas. The Politicized State in Latin America. In: MALLOY, James. *Authoritarianism and Corporatism in Latin America*. Pittsburgh: University of Pittsburgh Press, 1977, p. 25; 30-31.

¹²³ HOCHSTETLER; KECK, *op.cit.* p. 17; 226.

¹²⁴ HOCHSTETLER; KECK, *op.cit.* p. 26.

basis for affirming that informal social and political networks operate very differently in Brazil in comparison to Global North countries.¹²⁵

This correspondence between politicization and informality, nonetheless, provides a key interpretative pattern guiding the authors' evaluation of Brazilian environmental politics and policies. According to their reasoning, "because public policy decision making in Brazil is highly politicized and there is rarely a last word[,] "enforcement tend[s] to be weak, and expectations that policies will be enforced tend to be weak as well."¹²⁶ In Brazil, "informal social and political networks" would have gained enormous relevance in "[t]urning policy into practice[,] [...] given the weak enforcement capacity and low levels of institutional continuity characteristic of the Brazilian state."¹²⁷ "Institutional weakness – instability over time and inability to enforce decisions" would be one of the reasons why in Brazil "power often trumps institutional rules," completion of one policy stage "does not guarantee progression to the next[,] and "one can never be certain that [institutions] will [work the way they are supposed to]."¹²⁸ Informal connections would therefore have attained disproportional prominence in Brazil's peculiar institutional architecture, described as "simultaneously rigid and extremely bendable," and full of "boundary blurring, pliable procedures, and many redundancies (as well as absences)."¹²⁹

Besides "informal and personal arrangements" that "undercut formal institutions and formal equality" and elevate "the powerful often above the law[,] in Hochstetler and Keck's perspective "the undertow of Brazilian politics" would be plagued by another curse: an exacerbated "drive to develop trumping most other aims."¹³⁰ Like McAllister, the authors do not clarify what kind of development model they criticize as incoherent with environmental protection, if the national-developmentalism usually attributed to the military governments, the social-developmentalism of the Workers Party,¹³¹ or both indistinctly. Seemingly, the criticized

¹²⁵ In fact, in Japan, one of the countries mentioned by Hochstetler and Keck as an alleged contrast to Brazil, the "indispensability of informal networks, both internal and external, to the state's functioning" has long been thematized by the literature. In his comparative study on bureaucracies, Evans emphasizes how in Japan "internal networks are crucial to the bureaucracy's coherence" and "corporate identity that meritocracy alone [can] not provide." He describes "the centrality of the *gakubatsu*, ties among classmates at the elite universities from which officials are recruited, and particularly the 'batsu of all batsu,' which bring together the alumni of Tokyo University Law School who comprised in total an astounding 73% of higher bureaucrats in 1965." EVANS, Peter. *Predatory, Developmental, and Other Apparatuses: A Comparative Political Economy Perspective on the Third World State*. *Sociological Forum*, 4(4), 1989, pp. 561-587, p. 573.

¹²⁶ HOCHSTETLER; KECK, *op.cit.* p. 3.

¹²⁷ HOCHSTETLER; KECK, *op.cit.* p. 19.

¹²⁸ HOCHSTETLER; KECK, *op.cit.* p. 18.

¹²⁹ HOCHSTETLER; KECK, *op.cit.* p. 226.

¹³⁰ HOCHSTETLER; KECK, *op.cit.* p. 61.

¹³¹ NOBRE, Marcos. *Imobilismo em Movimento*. São Paulo: Companhia das Letras, 2013.

idea of development revolves around the construction of high-impact infrastructure projects.¹³² Also implicit in this generic critique of development lies the assumption, though less explicitly than in McAllister's rendition, that the socioeconomic models adopted by Global North countries reached a satisfactory equilibrium between provision of material goods to its citizens and conservation of natural resources and biomes.

Hochstetler and Keck's main argument is that the environmental advancements achieved in the last decades in Brazil "were the result of political struggles by a variety of primarily domestic actors, both state and nonstate (and sometimes both at once)." Contrary to traditional theories of norm diffusion that tend to depict state governments solely as bunkers of nationalistic resistance against the progressive environmental demands of an enlightened international civil society, the authors contend that "domestic factors have been more important in shaping outcomes than often assumed." However, this recognition of protagonism to Brazilian actors is right after softened in a mitigated synthesis, bringing the book to a more reassuring conclusion: "transnational and domestic actors and processes have been heavily intertwined in Brazilian environmental politics, to the point where neither can be understood without the other and often the two cannot even be distinguished."¹³³

It is in the chapter dedicated to the Amazon, though, that the theoretical lens above dissected is more consequential. The authors repeatedly report on an alleged Brazilian paranoia about the internationalization of the Amazon – the book is full of contentious expressions such as "nationalist card," "Brazil's seeming defiance of the Euro-American Goliath," "purported efforts to encroach upon Brazilian sovereignty in Amazonia," "rhetoric about the perils of 'internationalization,'" "nearly permanent charges of 'internationalization' of the Amazon", "conspiratorial tone that resonates well with Brazilian suspicions about the motivations of foreign environmentalists," and jubilant anecdotes about how Brazilian activists, politicians and diplomats supposedly were, in different occasions, outsmarted by their American or European counterparts.¹³⁴

Hochstetler and Keck criticize Brazil's non-submissive stance in the geopolitical arena regarding the Amazon as ultra-nationalistic hysteria, as if the integrationist, security-obsessed approach of the military regime and the perspective adopted by the subsequent democratic governments could be evaluated as a monolithic unit. Under the Workers Party administrations, there was a cataclysmic shift in how the Amazon's potential as a soft power tool was officially

¹³² HOCHSTETLER; KECK, *op.cit.* p. 180.

¹³³ HOCHSTETLER; KECK, *op.cit.* p. 3; 230.

¹³⁴ HOCHSTETLER; KECK, *op.cit.* p. 70; 75; 113; 230.

perceived. The biome ceased to be primarily regarded as natural resource stockpiles for predatory exploitation and empty territory for frontier expansion and became increasingly valued, including from a geopolitical standpoint, for its unique mega sociobiodiversity.¹³⁵ The transmutation of sociobiodiversity's soft power dimension into economic hard power in the form of bioindustrial clusters in sectors such as agroforestry biotechnology, molecules biodiscovery, hydrogen energy, and ethnomedicine was undoubtedly a priority to branches of the Workers Party administrations.¹³⁶ Pointing out such discontinuity, however, would probably be considered a defensive maneuver by politicians who wrongfully “consider [themselves] in a position to disclaim responsibility for the results of past governments' actions[.]”¹³⁷

In addition to misconstruing Brazil's geopolitical position on the Amazon and dehistoricizing governmental positions, when writing about the efforts made until then by the Brazilian state to halt illegal deforestation in the biome, Hochstetler and Keck completely and symptomatically ignore the existence of PPCDAm. Their book was published in 2007, three years after the policy began to be implemented. Deforestation had already dropped from 27,772 km² in 2004 to 11,651 km² in 2007. Yet, their evaluation came out as follows:

When foreigners decry the continuing destruction of the Amazon forest, they generally end with an exhortation that Brazil must *do* something about it. The exhortation stems from three false assumptions [...]. The first false assumption is that there is a unitary public authority, in contravention of the constitutional division of power and revenues among federal, state, and municipal governments. *Second is the assumption that there is a single policy, or at the very least a keystone policy, regulating or at least capable of regulating the seemingly relentless process of deforestation.* And finally, there is an assumption that the state (at some level) is effectively present and capable of determining the public interest and exercising authority in furtherance of it.¹³⁸

The erasure of PPCDAm is a coherent piece in the narrative that Brazil's politicized state has not been (and deep down will never be) able to achieve longstanding results in terms of enforcement capacity given its characteristic low levels of institutional continuity. The policy involved more than a dozen ministries, all its supporting documents and reports were opened to the public and published online on the webpage of the Ministry of the Environment. It took one of the authors another 15 years, as far as I'm aware, to explicitly acknowledge the existence of PPCDAm. In an article published in 2021, two years after the policy was extinguished by Bolsonaro, Hochstetler highlighted how during the Lula government environmental activists

¹³⁵ ABRANCHES, Sérgio. Biological Megadiversity as a Tool of Soft Power and Development for Brazil. *Brazilian Political Science Review* 14(2), 2020, pp. 1-18, p. 13.

¹³⁶ DA COSTA, Francisco *et al.* Bioeconomy for the Amazon: concepts, limits, and trends for a proper definition of the tropical forest biome. Working Paper WRI Brasil, 2022, pp. 1-20.

¹³⁷ HOCHSTETLER; KECK, *op.cit.* p. 114.

¹³⁸ HOCHSTETLER; KECK, *op.cit.* p. 147 (my emphasis).

and bureaucrats helped to formulate, under Marina Silva's leadership as Minister of the Environment, "the Action Plan for the Prevention and Control of Deforestation in the Amazon (PPCDAm) in 2004, which studies show made major contributions toward reducing the annual deforestation rate by 76% from 2005 to 2012." In this later piece, the author proposes a threefold periodization of Brazilian environmental politics: the period from 1990 to 2002 would be primarily a stage of responsiveness to international negotiations, from 2003 to 2010 a moment of domestic capacity building, and from 2011 to 2021 a time of institutional and political disarray.¹³⁹ Recognition for capacity-building efforts came posthumously, only after the prophetic description of Brazil as an unstable state seemed to have been fulfilled.

Even if less explicitly than McAllister's, Hochstetler and Keck's mentions of Ibama also tend to emphasize the agency's lack of capacity ("grotesquely understaffed," "not able to do the [monitoring] job") and involvement with corruption ("in a number of cases enforcement officials have been found to be cooperating with illegal logging").¹⁴⁰ Although didactically lecturing that "[f]or government to *do* something, it must establish its authority over the territory," the authors fully disregard the institutional efforts that were being orchestrated under PPCDAm and coordinated by Ibama to develop tools for exercising authority. They end the chapter with an exhortation to policymaking:

In other words, environmental protection in this part of the world at this time—as in all of the last thirty years—really seems to require building a credible and responsive state capable of mediating among diverse needs and interests, enforcing laws, and protecting the lives of those who contest the continued predation of the region's forests and its people alike. Nothing less will serve.¹⁴¹

Hochstetler and Keck's book has many praiseworthy aspects, for which it has been meritoriously awarded.¹⁴² Their work didn't escape, though, from reproducing two main flaws that, in my judgment, still permeate interpretations by part of the research produced in the Global North about problems unfolding in the Global South. The first vice is a theoretical bias to read political processes and events through the lens of a primordial failure, absence, or lack, without taking into account the historical roots and contemporary mechanisms sustaining such deficiencies, on the one hand, and taking for granted that in the Global North political processes and events operate under completely different patterns and schemes, on the other.

¹³⁹ HOCHSTETLER, Kathryn. Climate institutions in Brazil: three decades of building and dismantling climate capacity. *Environmental Politics*, 30(51), 2021, pp. 549-570, p. 555.

¹⁴⁰ HOCHSTETLER; KECK, *op.cit.* p. 150.

¹⁴¹ HOCHSTETLER; KECK, *op.cit.* p. 185.

¹⁴² HOCHSTETLER; KECK, *op.cit.* p. 10. Their description of a certain "Brazilian exceptionalism" as one of the reasons why the country is poorly integrated with its Latin American neighbors is particularly insightful.

Blaming Amazon deforestation on Brazil's low levels of institutional continuity – the military governments from 1964 to 1985, Dilma Rousseff's impeachment in 2016 and the Bolsonaro administration from 2019 to 2022 being the most evident instantiations thereof – without one single mention of how since the Cold War the destabilization of Latin American democracies has composed an integral part of the United States' foreign policy, omits a fundamental engine in the forfeiture of chronic institutional weakness. The decisiveness of North American support to the military coup against João Goulart in 1964 is documented in abundant historiographical materials and could hardly be contested as a historical fact.¹⁴³ The more recent involvement of the U.S. Justice Department in the Car Wash Operation is still being unveiled, and it might take a while to appear in the international public sphere with the same degree of legibility.¹⁴⁴ The operation generated momentum for Rousseff's impeachment in 2016 and resulted in Lula's imprisonment in 2018, clearing the way for Bolsonaro's election in that same year. Whereas Hochstetler and Keck imply that post-redemocratization Brazilian politicians are in no position to disclaim responsibility for the actions of military governments,

¹⁴³ Documents declassified by the U.S. National Security Archive in 2004 shed light on new details of the U.S. role in the coup d'état that overthrow João Goulart and installed a military regime under Castello Branco in 1964. "I think we ought to take every step that we can, be prepared to do everything that we need to do," said president Lyndon Johnson on March 31, 1964 to his aides. "If our influence is to be brought to bear to help avert a major disaster here-which might make Brazil the China of the 1960s – this is where both I and all my senior advisors believe our support should be placed," wrote ambassador Lincon Gordon to State Department, White House and CIA officials on March 27, 1964. Gordon recommended "that measures be taken soonest to prepare for a clandestine delivery of arms of non-US origin, to be made available to Castello Branco supporters in Sao Paulo." Gordon suggested that these weapons be "pre-positioned prior any outbreak of violence," to be used by paramilitary units and "friendly military against hostile military if necessary." He also recommended the arms be delivered via "unmarked submarine to be off-loaded at night in isolated shore spots in state of Sao Paulo south of Santos," to disguise U.S. participation. The documents also confirm CIA covert measures "to help strengthen resistance forces" in Brazil, including "covert support for pro-democracy street rallies [...] and encouragement [of] democratic and anti-communist sentiment in Congress, armed forces, friendly labor and student groups, church, and business." According to the National Security Archive, "four days before the coup, Gordon informed Washington that 'we may be requesting modest supplementary funds for other covert action programs in the near future.' He also requested that the U.S. send tankers carrying petroleum, oil and lubricants-to facilitate the logistical operations of the military coup plotters, and deploy a naval task force to intimidate Goulart's backers and be in position to intervene militarily if fighting became protracted." Cf. U.S. NATIONAL SECURITY ARCHIVE. Brazil Marks 40th Anniversary of Military Coup. Available at: <<https://nsarchive2.gwu.edu/NSAEBB/NSAEBB118/index.htm>>. Accessed on 8 November 2022.

¹⁴⁴ Brazilian prosecutors working in the Car Wash Operation "secretly hosted a delegation of U.S. officials and coached and facilitated U.S. efforts to secure cooperating witnesses in corruption investigations into state-controlled oil giant Petrobras. With the approval of Car Wash prosecutors, the U.S. negotiated deals with some witnesses without following treaty procedures, which would have given Brazil greater control over the process." To secure the involvement of the U.S. Justice Department, Brazilian prosecutors "intentionally ignored procedures outlined in Brazilian law and a bilateral treaty agreement with the U.S., apparently to keep the executive branch of the Brazilian government — then led by Lula's successor and ally, Dilma Rousseff — in the dark about their activities." "Members of the U.S. Congress demanded answers from Attorney General William Barr about the scope of the relationship and whether the Justice Department was aware of wrongdoing by their Brazilian counterparts[.]" Cf. THE INTERCEPT. "Keep it confidential:" the secret history of U.S. involvement in Brazil's scandal-wracked operation Car Wash (March 12 2020). Available at: <<https://theintercept.com/2020/03/12/united-states-justice-department-brazil-car-wash-lava-jato-international-treaty/>>. Accessed on 8 November 2022.

they seem to consider the United States – whose episodic criticism of Amazon deforestation is extensively mentioned throughout the book in a positive tone¹⁴⁵ – capable to disclaim responsibility for backing these same military governments. The authors very lucidly remark how “‘institutional weakness’ and ‘absence of the rule of law’ [...] is not an accident of recent settlement but rather a strategy deliberately pursued by powerful operators in the region for which a more robust state geared to maintaining law and order would be highly inconvenient.”¹⁴⁶ However, a transposition of this same logic to international relations – more powerful states can benefit from the instability of less powerful states and thus in some situations might have an interest in frustrating their capacity-building efforts – remains out of the analysis.

The second flaw consists in a certain methodological self-indulgence, whereby one reckons they can disregard the bulk of documentation registering the planning, implementation and evaluation of public policies without any prejudice to their analyses about these very same policies. This implication derives from the first shortcoming: if Brazilian institutions are unstable, dysfunctional, weak, and erratic, and policy cycles are in fact carried forth with the aid of informal networks, what reliable information could be found in official documents anyway? Policy papers would convey not much more than wishful thinking or governmental propaganda, in any case providing less relevant material to scientific policy analysis. Underestimating the importance of updating desk research prior to and after the interviews can result in neglecting entire policies, even those already entering the third year of implementation and mobilizing multiple ministries, agencies, and instruments.

What has prevented Brazilian scholars working in the field of environmental policies from more explicitly standing up against theoretical bias toward failure and methodological self-indulgence with policy documents would take us to another discussion. It can be that few actors interviewed by foreign authors read the publications resulting thereof and get acquainted with how their statements are interpreted. It can also be that a part of Brazilian scholars embraces the informality explanation and do not see undertheorized distinctions of the sort of “politicized Latin American states” vs. “institutional Western regimes” as remnants of Cold War propaganda, but rigorous scientific categories deriving from sober, objective comparisons. Others might fear that transmuting abstract calls for academic decoloniality into concrete critiques could endanger their international connections.

¹⁴⁵ HOCHSTETLER; KECK, *op.cit.* p. 114.

¹⁴⁶ HOCHSTETLER; KECK, *op.cit.* p. 153.

Relevant for the purposes of this dissertation is Hochstetler and Keck's recognition that the environmental advancements achieved in the last decades in Brazil were the result of political struggles by primarily domestic actors. The choice of selecting a state organization as a unit of analysis draws heavily on the acknowledgment that institutional developments at the national level played a leading role in combating deforestation from 2004 to 2014. This is not the same as denying agency and relevance to transnational actors: the Amazon Fund, a funding mechanism instituted in cooperation with Germany and Norway, is among the transnational instruments whose functioning and results will be discussed throughout the dissertation.

Moreover, a closer look at state institutions does not imply that official documents provide sufficient or reliable data on policy implementation. On the contrary, it requires complementary data collection techniques capable of capturing contesting information to that published in state communicational channels. Differently from the view that spotlights the role of informal networks in environmental policy implementation, however, I argue that the strengthening of state capacity achieved under PPCDAm to a great extent pivoted on the creation of norms and techniques that ostensibly diminished the exercise of discretion by Ibama agents (e.g. rules defining hypothesis and protocols for the destruction of equipment). At the same time, these norms and techniques significantly empowered Ibama's action, granting it thicker layers of institutionality and – why not to use the word – formality.

1.5 Review conclusion

This chapter sought to extract and elaborate upon the main findings, theoretical assumptions and differences of selected representatives of varying literature streams on Amazon deforestation, making room to situate my investigative stance and to present the research design. From the 1960s to the mid-1980s, deforestation was strongly pushed by highway constructions, subsidized credit, and colonization policies induced by military governments. In the 1990s, as these incentives phased out and crops and cattle proved to have become economically viable in the Amazon on their own, deforestation started to be more clearly associated with low-value-added economic activities. The persistent presence of cattle herds in deforested areas and the continuous conversion of pasture into soy plantations, despite the recent gain in prominence of illegal mining, land grabbing, and logging during the Bolsonaro government, show that the two commodities still play an important role in the dynamics of deforestation. Their incidence becomes even more noteworthy if one takes into consideration the net effects of indirect land-use change. Frontier-expanding economic

activities are interdependent: the arrival of more capitalized and technologized large-size agriculture in regions of consolidated frontier elevates land prices and pushes the opening of new frontiers by loggers, speculators and less professionalized ranchers.

Whereas contributions from a regulatory pluralism perspective plea that command and control instruments should be used only after market and voluntary instruments have failed, this research places command and control tools at the center of efforts to bestow efficacy to environmental regulations. While texts focusing on strategic legal action see prosecutorial enforcement and constitutional adjudication as alternatives to the exercise of police power by executive agencies, this study attributes to the latter a primary role in concretizing the normative function of constitutional environmental rights. Instead of linking deforestation to high levels of informality and an exacerbated developmentalism, both seemingly peculiar and enduring traits of Brazilian politics, this research nuances the differences and continuities between the political regimes and economic models adopted by changing power constellations throughout the planned implementation of PPCDAm. The texts reviewed under the rubric of quantitative studies indicate that – amidst a variety of measures such as land regularization and credit restrictions – command and control instruments (notably land embargos, seizures of products, and destruction of equipment) had the greatest relative impact in the avoidance of deforestation. The institutional transformations and arrangements that made them possible have not yet been entirely described, and there is still room for an in-depth case study addressing this gap.

CHAPTER 2. RESEARCH DESIGN

2.1 Question and objectives

My investigative endeavor took its initial impulse from the finding that Ibama's presence initially had the highest relative impact in the avoidance of deforestation. The question guiding the research is: what transformations in Ibama's organizational structure and culture have influenced and/or been influenced by the implementation of PPCDAm?

The research is designed as an in-depth case study:¹⁴⁷ it has a policy (PPCDAm) as its general unity and an organization (Ibama) as its sub-unity. The research's time span was originally restricted from 2004, the year PPCDAm was created, to 2020, the year its first complete implementation cycle was planned to end. As mentioned in the literature review, the policy was prematurely extinguished by two decrees issued by Jair Bolsonaro in 2019. That notwithstanding, to capture the effects of the policy's absence, as well as the many changes imposed on Ibama's structure during the period, I extended the temporal horizon covered by the analysis to 2022. This also allowed the inclusion of important developments and reconfigurations of the agribusiness' inner political divisions, particularly concerning the offer or withdrawal of support to Bolsonaro's anti-democratic mass mobilizations in August 2021 and re-election campaign in October 2022. We make a cursory incursion to its creation in 1989, to reconstruct some traits of the institution's trajectory since its origins. The narrative focus, however, remains from 2004 to 2022. This period offers us a greater availability of sources to observe how Ibama transformed its structure and culture to implement PPCDAm.¹⁴⁸

¹⁴⁷ Yin defines a case study as an "empirical investigation that inquires a contemporary phenomenon in its depth and real-world context, especially when the boundaries between the phenomenon and its context are not clearly evident". This strategy particularly suits research projects that question "how" or "why" in face of a set of contemporary events on which the researcher has little or no control. YIN, Robert. *Estudo de Caso: Planejamento e Métodos*. 5th edition. Porto Alegre: Bookman, 2015, p. 17.

¹⁴⁸ Portions of the thesis draw on these publications: MOULIN, Carolina Stange. Building and dismantling organizational capacity and bureaucratic identity: an analysis of Ibama's recruitment examinations (1989 – 2022). *Sustainability in Debate*, v. 1, n. 14, 2023, pp. 81-98; MOULIN, Carolina Stange. Soberania responsável e governança ambiental de bens públicos globais: o caso do Fundo Amazônia. In: OCAMPO, José Antonio; AMORIM, João; PEREIRA, Wagner (eds.) *Governança Internacional e Desenvolvimento*. São Paulo: Edusp, 2021, pp. 103-118; MOULIN, Carolina Stange. Capacity-building, dismantling strategies and resistance tactics in Brazilian environmental agencies: changes in Ibama's authority and nodality tools from 2004 to 2022. In: DE SÁ E SILVA, Michelle Morais; GOMIDE, Alexandre (eds.) *In the Wake of Illiberal Populism: the Policy Process in Democratic Backsliding*. London: Palgrave Macmillan, forthcoming; MOULIN, Carolina Stange. On promised lands: deintrusion as redress and the contrivance of land-grabbing. *Direito e Práxis* (ahead of print); MOULIN, Carolina Stange. Presidential decrees and statutory legislation in the making and dismantling of Brazilian forestry policy (under review in *International Review of Public Policy*).

The dissertation is divided into two parts. Part I expands on PPCDAm, delving into its context of implementation, governance structure, array of instruments, results achieved, and main gridlocks. Part II deepens into Ibama, by describing and analyzing the main transformations that the agency underwent in its organizational structure and culture during the implementation of PPCDAm. Originally, a third part focusing on the soy and cattle supply chains also composed the research design. Its goal was to inquire about the schemes, assumptions, and frames of thought shared by the actors coordinated around these commodity chains, on the one hand, and the economic, political, and legal mechanisms that influence their behavior and expectation toward environmental regulations, on the other. The empirical material corresponding to part III (interviews with farmers, ranchers and prosecutors) was already collected. It subsidiarily informs the analysis of parts I and II. However, for reasons of length and time constraints, a more thorough and direct interpretation of these actors' perceptions on zero-deforestation agreements, second-tier players, traceability, intensification, vertical value-adding, development, and other topics will have to be the subject of future publications.

2.2 Data collection techniques

The three main data collection techniques employed were secondary research, documental research, and semi-structured interviews. While the objective of literature review is to assess the state-of-the-art of scientific knowledge about a topic, in secondary research specific data found in previously published material is incorporated as complementary sources. Documental research, in turn, denotes the analysis of policy papers, governmental reports, contracts, judicial decisions, laws, executive orders, and other official acts, statements, newspaper articles, private records, declarations published on social media, or any kind of material collected anywhere but in scientific texts.¹⁴⁹

2.2.1 Secondary research

Secondary research on Ibama was comprised of articles, Ph.D. theses, and master dissertations about Ibama.¹⁵⁰ This rather scarce sample was complemented with investigations

¹⁴⁹ LAKATOS, Eva Maria; MARCONI, Marina de Andrade. *Fundamentos de metodologia científica*. 5ª ed. São Paulo: Atlas, 2003.

¹⁵⁰ GOUVEIA, Maria Teresa. *As conceituações de meio ambiente praticadas pelo corpo técnico do Instituto Brasileiro de Meio Ambiente (Ibama) na formação de sua cultura organizacional (Doctoral Dissertation)* – State

on PPCDAm's governance and instruments. At times, such a combination had a comparative strain, as the latter delivered information on institutional venues other than Ibama, allowing to put into perspective the agency's organizational transformations in their connection to the policy cycle of PPCDAm.¹⁵¹

2.2.2 Documental research

In April 2022 I spent two days in Ibama's library located in the agency's headquarters in Brasília. There I consulted nearly 600 pages of non-classified institutional documents, which mainly include (i) pedagogical plans, books, and handouts used in the training of new servants; (ii) internal restructuring reports; (iii) inspection manuals oriented to the agents; and (iv) notes to draft revisions of inspection manuals. This primary dataset obtained in Ibama's archive was complemented with materials available online, such as (v) statutes, decrees, laws, executive orders, and administrative acts concerning Ibama's competence of inspection; (vi) annual management reports; (vii) yearly budgetary provisions; (viii) pleadings and transcriptions of public hearings in complaints of unconstitutionality; (ix) public examinations for the admission of Ibama servants and their corresponding calls; (x) open letters written by Ibama's servants and their professional association, Ascema Nacional; (xi) interviews given by Ibama's inspection agents to the press; and (xii) social media content published by and/or about Ibama's

University of Rio de Janeiro, 2011; ALBERTINI, Marcia Luzia. Avaliação do impacto na transferência do treinamento e do suporte à aprendizagem do evento instrucional "Curso De Fiscalização Ambiental" do Ibama (Post-Graduate Dissertation) – National School of Public Administration, 2013; MONTEIRO, Bruno. A estrutura decisória do Ibama: um acerto ou uma fragilidade da gestão ambiental pública? (Master Dissertation) – Federal University of Pernambuco, 2014; SCHMITT, Jair. Crime sem Castigo: a efetividade da fiscalização ambiental para o controle do desmatamento ilegal na Amazônia. (Doctoral Dissertation) – University of Brasília, 2015; NAVARRO, Humberto. Lições Aprendidas no Uso do Sensoriamento Remoto e dos Sistemas de Informação Geográficas para a Gestão Pública das Florestas Brasileiras (Post-Graduate Dissertation) – National School of Public Administration, 2016; BONELLI, Francesco. Atuação dos burocratas de nível de rua no Brasil: os casos dos fiscais do Ibama e dos agentes do ICMBio na implementação da política ambiental (Doctoral Dissertation) – Federal University of Bahia, 2022; NEGRÃO, Mônica de Faria Franco. Avaliação dos Sistemas de Monitoramento da Vegetação na Amazônia utilizados para a Execução das Atividades de Fiscalização Ambiental (Post-Graduate Monograph) – National School of Public Administration, 2020; PEREIRA, Edgar dos Santos Costa. A função de coordenador operacional em fiscalização ambiental do Ibama: um estudo sob a ótica dos coordenadores operacionais e gestores da fiscalização (Post-Graduate Monograph) – National School of Public Administration, 2018; SANTIAGO, Ariadne de Oliveira. Capacidades burocráticas na prática: um olhar através das lentes dos analistas do licenciamento ambiental federal (Master Dissertation) – University of Brasília, 2017; FERREIRA, Hueliton. Trajetória da gestão de unidades de conservação federais no Brasil e os modelos institucionais de gestão: a mudança Ibama - ICMBio e seus impactos na Amazônia Ocidental (Master Dissertation) – Instituto Nacional de Pesquisas da Amazônia, 2012.

¹⁵¹ DE MELLO, Natália. Análise dos fatores responsáveis pela redução de desmatamento na Amazônia Legal entre os anos de 2005 e 2013 (Master Dissertation) – University of São Paulo, 2016; CAPOBIANCO, *op. cit.*; DE MELLO; ARTAXO, *op. cit.*; WEST; FEARNSSIDE, *op. cit.*

servants. Public statements on the agency by politicians complete the documental dataset analyzed.

Encouraged by the servants, in April 2022 I requested data to Ibama's Citizen Information Service on the basis of the Information Access Act (Law 12,527 of 2011). My information request had 25 items, such as the annual budget allocated to and effectively disbursed with inspection operations; number of inspection operations planned and executed per year; number and value of fines issued per year; number and value of goods seized per year; number and value of equipment destroyed per year; hectares of areas embargoed per year; and amount of servants specifically working with inspection in the Amazon. Most of the items were formulated based on some of the interviewees' previous comments that such data on inspection operations was indeed produced. The agency's reply came quite quickly, two weeks later. It basically referred me to governmental reports on personnel and budget, and Ibama's online platform of administrative sanctions and list of embargoed areas.

Most of the requested items could not be answered by the information contained in the databases. Ibama's online platform, for instance, offers no indication of the estimated value of the equipment destroyed in inspection operations, data of utmost importance to calculate more precisely the economic losses imposed by command and control instruments on environmental offenders. The personnel statistics published on the federal government's website do not specify how many agents are assigned to the Amazon region; neither do the indicated portals show how many of the planned operations were in fact executed, and so forth. Therefore, in the few instances when quantitative data is used more frequently in the dissertation, a protocol I adopted to ensure its reliability was to rely on reports from renowned NGOs that have expertise in requesting and interpreting government data.

2.2.3 Interviews

From October 2021 to May 2022 I conducted 44 semi-structured interviews with current and former Ibama servants and executive leaders (12), actors working in other state institutions involved in the implementation of PPCDAm (8), federal prosecutors (4), NGO representatives (2), and agribusiness actors (16). Some were made online, some were made in person from March to April 2022 in the capital Brasília and the cities of Araguaína, in the state of Tocantins, and Redenção, in the state of Pará. The interviews were recorded upon explicit authorization of the interviewees and transcribed with the help of the software Trint. The software alleviated only around 30% of the transcription workload, the bulk of the recordings

still had to be manually transcribed. Approximately 60 hours of recording were converted into nearly 700 pages of transcriptions. Each interview took an average of 1 hour and 20 minutes. In addition to the 44 interviews, 2 other cattle ranchers responded to my questions in writing.

Any type of information that could lead to the personal identification of the interviewees was anonymized. Individual names, names of farms, biographical information (e.g. educational and professional background, city of origin, career trajectory), specific events in which the person was involved, were all either omitted or presented in more aggregated, generic formulations. The main challenge was to keep as much detail as possible without compromising confidentiality. Fieldwork was carried out during a particularly troubled conjuncture. Ibama servants had been since 2019 under institutional censorship, forbidden to communicate autonomously with the press and under close surveillance by military officials. The number of violent conflicts in rural areas had been exhibiting a growing trend, victimizing mainly the leadership of rural workers, indigenous peoples, and traditional communities.¹⁵² The Brazilian indigenist Bruno Pereira and the British journalist Dom Phillips were assassinated in Amazonas a couple of weeks later in June. The number of weapons registered in possession of civilians tripled in Brazil from 2019 to 2021, and in the Amazonian region increased by 700%.¹⁵³ The general elections of 2022 were a few months away and part of the agribusiness sector was distempered at the prospect of failure of Bolsonaro's reelection campaign. Brasília had recently been the stage of mass protests in which explicit threats of a coup d'état were trumpeted by Bolsonaro and his followers.

Under such circumstances, confidentiality was, unsurprisingly, an explicit request from the vast majority of interviewees. Not from all of them, though. A few interviewees (mostly former servants) seemed pleased with the perspective of having their deeds directly attributed to their names in the dissertation, and expressed non-verbally a slight disappointment to hear their answers would be fully anonymized. When I explained that was standard protocol in academic research on topics of high sensitivity – to protect both the respondent and the researcher, – they agreed to the anonymization.

The selection of interviewees followed a snowball sampling. In the case of Ibama, the non-use of probabilistic sampling techniques was mainly motivated by the difficulty in getting

¹⁵² COMISSÃO PASTORAL DA TERRA. *Conflitos no Campo Brasil 2021*. Available at: <<https://www.cptnacional.org.br/downloads/summary/41-conflitos-no-campo-brasil-publicacao/14271-conflitos-no-campo-brasil-2021>>. Accessed on 12 October 2023, p. 21.

¹⁵³ MARTINS, Marco Antônio. *Em 3 anos, número de armas registradas por caçadores, colecionadores e atiradores quase triplica e chega a 1 milhão*” (G1, August 31, 2022). Available at: <<https://g1.globo.com/rj/rio-de-janeiro/noticia/2022/08/31/em-3-anos-numero-de-armas-registradas-por-cacadores-colecionadores-e-atiradores-quase-triplica-e-chega-a-1-milhao.ghtml>>. Accessed on 9 November 2022.

access to the nucleus of servants responsible for inspection operations in the Amazon, considering the overall atmosphere of fear that prevailed in the agency during the Bolsonaro government. Ibama has approximately 2,500 employees, but in 2022 only around 150 of them directly worked with operations in the biome.¹⁵⁴ A rather small group, which for self-protection began to adopt ingenious tactics to administrate the disclosure of information to externals. In such a scenario, more probabilistic and “official” approaches such as sending standardized messages and forms to the servants’ internal mailing lists – as done by Marcia Luzia Albertini in 2013 for her post-graduation monography on Ibama’s training courses, Albertini being an employee of the agency herself¹⁵⁵ – were closed to me. Ethnographic work in an Ibama unit, with a view to observing both routine bureau activities and field inspection operations – an approach similar to the one taken by Camila Penna in her dissertation on an Incra unit in Marabá, Pará,¹⁵⁶ for example – was also not a possibility.

Reaching the agents in these somber times was only possible through what Elisa Klüger, based on Mark Granovetter, calls “weak links:” indications by acquaintances located in the periphery of my social network (given that information circulating in one’s closer network tends to be redundant with that possessed by the person herself).¹⁵⁷ A colleague’s brother-in-law happened to be friends with an Ibama ranger working in inspection operations in the Amazon, and that was how I got my first interview with an insider of the organization. Only twice did it work out to approach the interviewees directly per email, and in both cases they were *former* servants, whose jobs would not be at risk by a conversation with me. This was a very fortunate happening to the research, as one of these former servants ended up turning out to be the most decisive gatekeeper to access current agents.

Through this gatekeeper, I gained access to the main idealizers and executors of Ibama’s enforcement strategy during the times of PPCDAm. Many of them saw in the interview a whistleblowing opportunity amidst the censorship regime that had been institutionalized in the agency in 2019. As vented by a servant, “being able to explain all this to someone is almost a therapy session.” I noticed, though, that while receiving me with invaluable generosity, trust and openness, this nucleus also saw to it that my snowball didn’t grow too big as to catch the

¹⁵⁴ Interview with Ibama servant.

¹⁵⁵ ALBERTINI, Marcia Luzia. Avaliação do impacto na transferência do treinamento e do suporte à aprendizagem do evento instrucional “Curso De Fiscalização Ambiental” do Ibama (Post-Graduate Monograph) – National School of Public Administration, 2013.

¹⁵⁶ DE CASTRO, Camila Penna. Conexões e controvérsias no Incra de Marabá: o Estado como um ator heterogêneo (Doctoral Dissertation) – University of Brasília, 2013.

¹⁵⁷ KLÜGER, Elisa. Meritocracia de Laços: gênese e reconfigurações do espaço dos economistas no Brasil (Doctoral Dissertation) – University of São Paulo, 2017, p. 24; GRANOVETTER, Mark. The strenght of weak ties. *American Journal of Sociology* v. 78, n. 6, 1973, pp. 1360-1380.

attention of the agency's leaders. My attempts to contact two servants who were not part of their closer network were discouraged and blocked, under explanations such as "this person is not well informed" or "it is not certain whether this person can be trusted" and questions like "why do you want to talk with more people? Don't you have enough information already?" After visiting Ibama's headquarters in Brasília, therefore, I decided to give the snowball a break until the elections in October. The agents were already under a lot of pressure without a nosy researcher asking for contacts and indications. Hopefully the atmosphere would become calmer afterward.

An episode that occurred during my visit also impelled me to the decision to suspend the interviews for a while. Ibama is located in a cluster of horizontal buildings surrounded by trees in Brasília's North Wing. At the main entrance, all visitors have to present an identification document, and at the reception desk of each building the visitors go through another round of identification. I was standing at the reception desk of the library building, the security officer asked my name. "Carolina." "Surname?" "Stange." He looked over the clipboard on which he was registering my presence. "Stange? Really? Don't you have another one? It's better not to write this one here these days if you know what I mean." I was not sure I knew what he meant, but replied "Moulin, then." (Brazilians usually have two, three or even four surnames, to the dismay of every German bureaucrat with whom I have crossed paths). "This is also not good. Don't you have another one?" "Azevedo." He nodded positively and went back to writing on his clipboard. "Azevedo works. Wait here please." I sighed in relief. There were no more surnames left in case that one didn't fit either.

The only explanation I found for this Kafkaesque dialogue was that Ibama's leaders appointed during the Bolsonaro government were so knowingly paranoid with a "green-red" globalist plot to overthrow their project of power and so obsessed with secrecy that even the slightest resemblance of my surname with that of the American nun Dorothy Stang, murdered in Pará in 2005 for defending peasant land rights, could be cause for suspicion (Moulin was vetoed, I presume, because it sounded too unusual). The security officer, who later helped me to get in contact with the librarian, was trying to prevent my presence there from raising questions from these people. If merely consulting non-classified historical documents available in the library could already put the employees in a tight spot, I should really better wait until the elections to expand my snowball of interviews.

The strategy for approaching the farmers was not so different from that for approaching Ibama's servants. It also followed a snowball sampling and depended on the mobilization of weak links: some members of my family have acquaintances who raise cattle

in Pará; they facilitated my first interview with a rancher, who in turn indicated me to his peers. Closer access to the inner circle of farmers and ranchers, therefore, was the primary criterion for choosing Araguaína and Redenção as fieldwork settings. Both municipalities are located in regions of “consolidated frontier,” whose administrative foundation dates back respectively to the 1950s and 1970s. Most of the interviewees, however, practiced some kind of economic activity in regions of “new frontier,” in lands that lacked titling and environmental regularization. The cities’ characteristics thus made them optimal locations to grasp the schemes, assumptions and frames of thought subtending the farmers’ decisions to advance over the forest, to observe how capital flows from one region to the other and helps to finance novel fronts of deforestation.

Distrust of researchers – notorious “leftists” according to the Bolsonarist worldview embraced by most of the agribusiness sector – was verbally expressed, in one way or another, by many farmers at the beginning of the conversation. “Who is financing you? What will you do with the information we give you? Will you use it against Bolsonaro? Why is Germany so interested in the Amazon? Are you a German spy?” were among the questions I was asked after introducing myself, detailing the research and informing my Ph.D. was being pursued in a double degree jointly at a German university. I explained my research and fieldwork were sponsored by the Deutscher Akademischer Austauschdienst (DAAD), that I had to apply for scholarships abroad because of how dismantled the Brazilian scientific system had been, and that unfortunately I was no spy, but earned my living just as a regular Ph.D. student.

I explained my research was not interested in harvesting journalistic-like data of the kind “who did what where and when” but was rather dedicated to understanding more general patterns of meaning structuring their worldviews and motivating some of their business decisions. I made clear that, even if I didn’t agree with everything they said, it was my job to register what I heard, striving to mark a distinction between their understandings and the interpretations I extracted thereof. I reassured them the interviews would be used only in the scope of the research and that my dissertation, whose publication would occur long after the 2022 elections, does not intend to be a pamphlet attack on Bolsonaro.

A protocol adopted in the attempt to mark a distinction between the interviewees’ statements and the interpretations derived thereof was to make abundant use of direct and long quotations. Instead of diluting the actors’ answers in the dissertation, whenever possible, I opted to put the reader in direct contact with them. In this regard, I was inspired by Boaventura de Sousa Santos’ use of direct and long quotations in his reconstruction of communitarian dispute

resolution methods in a Brazilian favela.¹⁵⁸ This writing technique by no means aspires to value neutrality, since the whole interview process, from the formulation of the questions to the selection of the passages to be laid out in the text, is a construction of the researcher. Yet, in my understanding, it does help to draw a partial separation between the researcher's and the actors' web of linguistic signifiers, a dissonance that can reveal new interpretive meaning and have generative effects. Moreover, the direct transcription of interview quotes can serve as a reservoir for further research by other scholars, who can draw on the material in either complementary or confrontative approaches in relation to the one here pursued.

After an initial moment of defusing distrust, many farmers gave indications they saw the interview as an opportunity to have their perceptions heard by “people from Europe.” Several interviewees made spontaneous reference to Europe's environmental market restrictions as a form of neoprotectionism, and possibly thought the interview could be a venue to register their discontent. At the end of the interviews, many made themselves available for further conversations and indicated other contacts I could talk to in Araguaína and Redenção.

Besides the interviews with Ibama servants and farmers, I also interviewed federal prosecutors, NGO representatives, and actors working in other state institutions involved in the implementation of PPCDAm. Most of these interviews were conducted in Brasília in cooperation with two colleagues, Prof. Almut Schilling-Vacaflor and Prof. Maria-Therese Gustafsson, who were researching related topics. These conversations were extremely important to situate the perspectives of Ibama's servants into a wider institutional context.

While in Brasília, I also tried to interview federal congress representatives who declare to own rural properties in the Amazon region.¹⁵⁹ Without connections and relying solely upon official emails and phone numbers as a strategy of approach, though, I never got past their chiefs of staff. As for the corporations operating in the second tier of the soy and cattle supply chains and the agribusiness associations of which they are members, only one trader and one slaughterhouse answered my emails, despite all the efforts made by these companies and associations to structure public relations departments. Both requested the questions in advance. Once in possession of the questionnaire, the soy trader stopped responding. The slaughterhouse gave me the courtesy of communicating that “after internal discussion, [they] chose not to

¹⁵⁸ SANTOS, Boaventura de Sousa. *The Law of the Oppressed: The Construction and Reproduction of Legality in Pasargada*. *Law & Society Review*, vol. 12, no. 1, 1977, pp. 5-126. See, for instance, the reproduction of a dialogue held between the communitarian leader and two parties in pages 70-71.

¹⁵⁹ A list of politicians who own lands in the Amazon can be found in DE OLHO NOS RURALISTAS. Available at: <<https://deolhonosruralistas.com.br/2019/05/12/mapa-das-terras-dos-parlamentares-mostra-que-congressistas-acumulam-fazendas-na-amazonia-e-no-matopiba/>>. Accessed on 9 November 2022.

proceed with the in-depth interview.” The slaughterhouse’s public relations manager also referred me to their sustainability reports available online.

The elaboration of the interview guides was inspired by Beth Leech’s *Asking Questions: Techniques for Semistructured Interviews*, a short but extremely valuable methodological piece in which she condenses tips on elite interviewing elaborated after years of research on U.S. lobbyists and policymakers. Open-ended questions in elite interviewing, Leech asserts, can benefit greatly from a “grand tour” format, in which respondents are asked “to give a verbal tour of something they know well.”¹⁶⁰ They have the benefit of making the respondent reflect on regularities, repetitions, patterns, and averages. This allows them to answer in a more relaxed way, without feeling pressured to reveal a “scoop” about their or someone else’s misconduct. “Could you describe a typical negotiation with a slaughterhouse? What is the step-by-step of an inspection operation against deforestation like? Could you reconstruct the most decisive events of your professional trajectory?” are some examples of grand tour questions I used.

“Prompts” are important complements to open-ended questions. They can be used to probe for a specific issue if the respondent doesn’t bring it up.¹⁶¹ For instance, to the question “How do you perceive the profitability of cattle raising in relation to other opportunities available to you?” I planned the prompts “in comparison to planting soy or leasing the land.” If the rancher did not spontaneously mention alternative economic activities for comparison when replying about perceived profitability, I brought them to the conversation, in order to sense to what extent they appeared as feasible options in his horizon of action. Another example: when asking Ibama servants how they would describe the main values and ideas guiding Ibama’s organizational culture, I prepared the prompt “difference from ICMBio and the Armed Forces.” The agents’ descriptions of Ibama’s organizational culture proved to be richer when put into perspective against how they perceive the culture of other institutions which also eventually take part in inspection operations.

Alongside grand tour questions and prompts, Leech gives indications on when to use “presuming questions,” called such because “they imply that the researcher already knows the answer—or at least part of it.” More suitable for journalistic work, this type of question should be avoided in social science research. However, there are exceptional circumstances when they “are necessary to make respondents comfortable enough to answer honestly[,]” particularly when “the question is one that the respondent is likely to try to avoid and involves a matter that

¹⁶⁰ LEECH, Beth. *Asking Questions: Techniques for Semistructured Interviews*. *PS Online*, 2002, pp. 665-668.

¹⁶¹ LEECH, *op. cit.* p. 668.

may have a stigma attached to it[.]”¹⁶² I knew, for instance, that the Ministério Público had been severely criticized by NGOs and newspapers specialized in environmental journalism for not enforcing the Cattle Agreements in court, even though there was evidence of noncompliance by the bigger slaughterhouses.¹⁶³ Therefore, instead of approaching this sensitive issue by directly asking the prosecutors “why didn’t the Ministério Público enforce the agreements?”, I took more time to formulate a presuming question:

I read some reports of environmental journalists commenting that the Ministério Público did not enforce the Cattle Agreements in court. It is possible to speculate why; we know the judiciary. I was also going to ask you this question: what is the reason for not enforcing them? Does it have to do with the typical slowness of the judiciary? Also, talking to people from Ibama, they informed me that the Ministério Público has a project called Amazônia Protege, in which public civil actions are filed against violators. I was wondering what would be the rationale behind this strategic choice of the Ministério Público to, in some cases, file judicial cases and, in other cases, to sign an agreement. You just mentioned something interesting about using the lawsuits as a way to get to the agreements with those who are more refractory to settling. Could you comment on the rationale behind these strategic choices of the Ministério Público, and whether it has to do with the judiciary or not?

I presumed a prosecutor would justify the decision to refrain from enforcing a breached agreement in court by referring to the duration of a lawsuit in Brazil (federal proceedings to enforce a judicial decision or an extrajudicial agreement last on average seven years).¹⁶⁴ This presumption was grounded in previous readings about extrajudicial agreements¹⁶⁵ and my prior experience with actors working with prosecutorial enforcement and alternative dispute resolution methods. By using nonjudgmental words and avoiding implying charges to the Ministério Público’s work, the question opened space for the prosecutor to give an honest, non-defensive answer. Although his reply did mention the general slowness of the judicial system, right after he redirected the conversation to an entirely different motive for not enforcing the agreements in court – fear of leakage, – adding new and valuable information to the research:

The main bottleneck is the following: if [the slaughterhouse] complies with the agreement to the letter, it will make a loss because it will not have cattle to slaughter. For its business to make sense, it needs to receive, let's imagine, five thousand heads a month. But if it complies with the agreement, it has to refuse cattle of irregular origin. Then it will slaughter [only] one thousand, one thousand five hundred, two thousand, then the bill doesn’t add up, and they tell me this. Then I say, ‘Look, I got it.’ And then someone, an external observer, [says] the Ministério Público has to

¹⁶² LEECH, *op. cit.* p. 668.

¹⁶³ MENGARDO, Bárbara. TAC da Carne no Pará: irregularidades dos frigoríficos passam em branco” *O Eco* (04 April 2018). Available at: <<https://www.oeco.org.br/reportagens/tac-da-carne-no-para-irregularidades-dos-frigorificos-passam-em-branco/>>. Accessed on 18 July 2020.

¹⁶⁴ BRAZIL. Conselho Nacional de Justiça (CNJ). Relatório Justiça em Números 2023. Available at: <<https://www.cnj.jus.br/wp-content/uploads/2023/09/justica-em-numeros-2023-010923.pdf>>. Accessed on 10 October 2023.

¹⁶⁵ VIEGAS, Rodrigo; PINTO, Raquel; GARZON, Luis. *Negociação e acordo ambiental: o termo de ajustamento de conduta (TAC) como forma de tratamento dos conflitos ambientais*. Rio de Janeiro: Heinrich Böll Foundation, 2014.

enforce [the agreements in court], right? If I bankrupt the company, the cattle go for clandestine slaughter; they go to another slaughterhouse that didn't sign the agreement.

The interview guides were constructed differently for each type of actor. All of them, though, began with a question about the individual's personal trajectory and ended with a question about the individual's vision of the future, be it for her workplace, business, or community, and about a project she would like to pursue. I borrowed this idea of closing the interview in a more hopeful tone from Michelle Morais de Sá e Silva, with a view to “minimizing the negative psychological effect the interview process was observably having on participants[.]”¹⁶⁶ especially on the public servants.

There is a plus to the question about the person's trajectory that is worth mentioning. Before each interview I gathered as much information as possible about the interviewee by following the digital fingerprints the person has left on open social media profiles. If the person had an academic background, I read every one of her publications available online, from undergraduate monographs to Ph.D. theses. If the person was professionally active on YouTube, giving interviews to podcasts or speaking in streamed events, I watched them taking notes. If the person used her Twitter, Facebook, or Instagram profile to publish open content about job-related topics, I checked them too. My objective with this protocol was to ensure the interviews would not be wasted on content already available online. The way I found to bring this up in the interview was by opening it right at the beginning:

Before each interview, I try to research as much about the interviewee as I can on the internet. So I had access to your article on [.] , also to your Lattes resume and the content you publish on your social media. I tried to research a bit about you. I know that you studied [.] at the federal university of [.] . You entered Ibama in [.] and held the positions of [.] and [.] within the agency. This is some of the public information that was available online. But if you could reconstruct for me your trajectory before entering Ibama, including, for instance, what motivated you to take the public service exam, and then your trajectory after having entered the agency... What do you consider important, decisive, in your professional history?

This is what anyone can find on Google. Tell me what one cannot. None of the interviewees showed discomfort with this way of opening the conversation. With the farmers, I used a different approach to begin the interview. Since most of them had a history of family migration from the South, Southeast, and Centralwest regions to the Amazon, I opened the conversation by asking the reasons for this relocation and what changes they perceived occurring in their surroundings since they settled in the area.

¹⁶⁶ DE SÁ E SILVA, Michelle Morais. Beyond ordinary policy change: authoritarian policy dismantling in Brazil. Preprint published in Scielo, 2021, p. 8.

PART I: THE ACTION PLAN FOR PREVENTION AND CONTROL OF DEFORESTATION IN THE LEGAL AMAZON (PPCDAM)

The institutional background of PPCDAm, as well as its context of implementation, governance structure, array of instruments, results achieved, and main gridlocks, were cursorily assessed in the literature review. Part I expands on these topics with recourse to the interviews and a more thorough engagement with scholarly contributions and policy documents. Its aim is twofold: to fill gaps in the literature in English about PPCDAm and to provide a thicker layer of contextualization for the next chapters on Ibama.

Part I is structured into three chapters. Chapter 3 gives an overview of governmental initiatives to halt deforestation in the Amazon that either precede or are concomitant to the creation of PPCDAm, showing how the latter gradually incorporated elements of previous initiatives and became a focal point for the coordination of socio-environmental policies in the region. It reconstructs the main changes in PPCDAm's governance structure and general guidelines, dividing its implementation period into three moments: from 2004 to 2013, when the policy was coordinated by the Civil House of the Presidency; from 2013 to 2018, when its coordination was in charge of the Ministry of Environment; and from 2019 to 2022, when it was extinguished and replaced by a façade plan. Chapter 4 details the activities planned and executed within each axis of PPCDAm (land and territorial planning, monitoring and control, sustainable production, and economic and normative instruments). Lastly, chapter 5 identifies and discusses four gridlocks that compromised the implementation of the plan: (i) greater difficulty in advancing a positive agenda; (ii) resistance of states and municipalities in taking concrete actions to restrain agribusiness expansion; (iii) massive reliance on executive orders to build the policy's legal architecture; and (iv) mismatch between the performance of environmental and land agencies at the federal level. The conclusion of part I follows.

Yet, before we move toward the history and analysis of PPCDAm, let us first outline the theoretical foundation animating this macro-level policy description by turning to William Clune's "political model of implementation" and its three-fold narrative scheme for policy case studies.

The descriptive problem of an in-depth case study dedicated to a public policy, as one scholar puts it, “is simply how to tell an implementation story.”¹⁶⁷ Given the numerous interactions comprising an implementation process, however, this task may not be as simple as it seems at first. When one considers the vast amount of concepts and approaches available in the literature to grasp how policies come into existence, change over time, and eventually die, the challenge gains even more complexity. From Kingdon’s “multiple streams model”¹⁶⁸ to Lipsky’s “street-level bureaucracy,”¹⁶⁹ from Weibler and Sabatier’s “advocacy coalition framework”¹⁷⁰ to Latour’s actor-network theory informing an “ant’s eye-view” ethnography of the state,¹⁷¹ from Streeck and Thelen’s modalities of incremental institutional change¹⁷² to Bauer and Knill’s typology of disruptive policy dismantling¹⁷³ – the reservoir of scholarly contributions offering analytical tools to understand different aspects of collectively binding decision-making is immensely rich.

For the purposes of this chapter, – in which we do not yet dive into Ibama’s day-to-day activities but provide an enriched description of PPCDAm at a more general level – the propositions advanced by William Clune give us a good starting point to structure our endeavor. Instead of providing a rigid and finished model to be filled with empirical data, Clune’s “political model of implementation,” as he calls it, serves as a heuristic framework, helping us to direct our gaze and orient ourselves in the narration of the implementation story of PPCDAm.

Taking an approach to public policy more aligned with socio-legal research, Clune defines implementation as “the process of creating or attempting social change through law.” Or, more specifically, as “the study of governmental organizations trying to influence other organizations to do something that is difficult enough to require a great deal of interaction.”¹⁷⁴

Clune’s “political model of implementation” has four characteristics: (i) reformism (“all important decisions and structures involved in implementation are the result of political

¹⁶⁷ CLUNE, William. A Political Model of Implementation and Implications of the Model for Public Policy, Research, and the Changing Roles of Law and Lawyers. *Iowa Law Review* 69(47), 1983, pp. 47-125.

¹⁶⁸ KINGDON, John. *Agendas, Alternatives, and Public Policies*. 2nd ed. London: Pearson, 2014.

¹⁶⁹ LIPSKY, Michael. *Street-Level Bureaucracy: Dilemmas of the Individual in the Public Services*. New York: Russel Sage Foundation, 2010.

¹⁷⁰ SABATIER, Paul; WEIBLE, Christopher. The Advocacy Coalition Framework: Innovations and Clarifications. In: SABATIER, Paul (ed). *Theories of the Policy Process*. Boulder: Westview Press, 2007, pp. 189-222.

¹⁷¹ LATOUR, Bruno. *The Making of Law: an ethnography of the Conseil d'Etat* (transl. by BRILMAN, Marina; POTTAGE, Alain). Cambridge: Polity Press, 2002.

¹⁷² STREECK, Wolfgang; THELEN, Kathleen (eds.) Introduction. In: *Beyond Continuity: Institutional Change in Advanced Political Economies*. Oxford: Oxford University Press, 2005.

¹⁷³ BAUER, Michael; KNILL, Christoph. A Conceptual Framework for the Comparative Analysis of Policy Change: Measurement, Explanation and Strategies of Policy Dismantling. *Journal of Comparative Policy Analysis*, 2014, pp. 28-44, doi:10.1080/13876988.2014.885186.

¹⁷⁴ CLUNE, *op. cit.* p. 51.

struggle and compromise between social movements and the interest groups whose behaviors the social movements desire to change”); (ii) interactionism (“implementation is a continuous process of mutual adjustment among interested organizations in light of information that they receive about each other’s actions”); (iii) recursiveness (“implementation is not a one-way process with an end point” but a circular process, as “the political forces that initiate implementation continue to interact at all levels of sociolegal action”); and (iv) long-run development (which can be “evolutionary, in the sense that trial and error lead to improvement, refinement, maximum effectiveness, institutionalization,” or negative, in the sense that it might result in “the death of the underlying policy through backlash, co-optation, attrition, or desuetude” due to “disillusionment, political sabotage, [or] retrenchment”).¹⁷⁵

Given such general characteristics, when reconstructing the multiple interactions comprising an implementation process one should keep in mind that law is not fully autonomous but considerably constrained by politics. As “compromise is encountered at every step and every level of the system, from the negotiation and renegotiation of legal mandates to the social construction of reality at the field level,” the temptation to conclude that policy implementation ended up frustrated by politics lies at every doorstep. That notwithstanding, one should equally avoid narrow understandings of law, reducing it to “a passive medium of exchange for power brokers” or “a transmission belt for social interests.” Because law, to a certain extent, *is* politics with other means, in implementation “enormous room for creativity, adaptation, and negotiation exists.”¹⁷⁶

Clune contends that tellers of implementation stories, consciously or unconsciously, tend to structure their case studies around three schemes: “policy conflicts,” “watershed decisions,” and “punts.” Policy conflicts “emerge from the political positions that are implicated intrinsically by any area of purposive social policy,” and can be thought of in terms of individual or collective interests. Watershed decisions “are resolutions of major policy conflicts – decisions to do things in one way rather than in other possible ways – with a different social outcome resulting from the choice.” When analyzing a watershed decision, it is important “to consider not just what was done, but what could have been done and was not.” Lastly, punts occur “when the implementing process deliberately avoids deciding an issue, leaving resolution of it to some other institutional level or covertly accepting the status quo.”¹⁷⁷ This threefold scheme “conflicts-decisions-evasions” can be employed as narrative categories in different

¹⁷⁵ CLUNE, *op. cit.* p. 78.

¹⁷⁶ CLUNE, *op. cit.* p. 123.

¹⁷⁷ CLUNE, *op. cit.* p. 83-84.

areas or activities composing the implementation process, such as “the history of social movements, their influence on legislation, the details of regulations, field-level interactions between inspectors and regulated organizations, and key structural characteristics of various kinds of regulated organizations.”¹⁷⁸

In a complementary manner, the elements constitutive of the legal-institutional framework for public policies proposed by Maria Paula Dallari Bucci will be used alongside Clune’s model to structure the description of PPCDAm. These elements are (i) the program’s official name, which gives its “political brand” and conveys the policy’s “guiding idea;” (ii) the party administration that created and implemented the program; (iii) its normative base; (iv) its legal-institutional design or governance structure; (v) the main governmental actors involved; (vi) the main civil society actors involved; (vii) the repartition of competences among central and subnational governments; (viii) the program’s scale and beneficiaries; (ix) its financial/budgetary dimension; (x) its implementation strategy; (xi) its real, empirical functioning, and lastly (xii) critical aspects that either contribute to or undermine its efficacy.¹⁷⁹

A “complete story of implementation,” Clune argues, “must continue the analysis beyond and below the watershed decisions into the structure of regulating and regulated organizations and the myriad interactions between them.”¹⁸⁰ This second movement of tracing “watersheds some distance ‘toward the street’” is the object of part II. In part I, we describe the main conflicts of interest, turning points, and evasions that marked PPCDAm’s formation in 2004, its incremental process of implementation over the next 15 years, and its discontinuation in 2019. This description is inevitably permeated with evaluative judgments. Efforts to strengthen sustainable production achieved considerably fewer results than command and control instruments under PPCDAm: does this unbalance mean that the policy “failed” or simply that certain interventions require more budget and time to generate outputs than others? PPCDAm’s legal architecture strongly relied on presidential decrees: does this reliance reflect a not-so-democratic preponderance of the president in Brazil’s political system or interested inertia of other state actors? Such questions (addressed among others in chapter 5) unavoidably elicit aspects of the researcher’s subjective point of view, implicitly prompting the analysis to slip from description to evaluation. After all, “implementation is politically active, and evaluation is an extreme example of normative bias.”¹⁸¹

¹⁷⁸ CLUNE, *op. cit.* p. 96.

¹⁷⁹ BUCCI, Maria Paula Dallari. Quadro de referência de uma política pública: primeiras linhas de uma visão jurídico-institucional. In: *O direito na fronteira das políticas públicas*. São Paulo: Páginas & Letras, 2015.

¹⁸⁰ CLUNE, *op. cit.* p. 85.

¹⁸¹ CLUNE, *op. cit.* p. 87.

If implementation case studies cannot escape some degree of evaluation, a few more remarks about it may be in order. Clune stresses that policy evaluators should avoid adopting the role of “debunker and unmasker.” “Because the one thing we can be sure of, and therefore do not need research to demonstrate, is that neither side of a sociological conflict gets everything it wants[,]” positions that “essentially hold that all implementations fail because they result in compromises and unexpected consequences” add little to understand the implications of that conflict. On the other hand, to hold that all policies succeed, “at least in giving symbolic support to social movements,” is equally insufficient to nuance the factors that frustrate the achievement of more concrete policy goals by interested groups.¹⁸²

Rather than adopting a “monolithic perspective” on policy outcomes, “the essential task of evaluation is to distinguish between degrees of relative success and failure.”¹⁸³ One way to frame the “relativeness” of policy success or failure, Clune suggests, is to differentiate between the “symbolic victory” (when the greatest achievement is the reaffirmation of social values, either as a means of differentiating groups or entailing gestures of cohesion); the “fizzle” (when some action does take place but the changes are null or so insignificant that it ends up serving more as an “alibi” for the government or ruling groups); and the compromise (when even amidst bargains and accommodations, substantial progress is made “in changing the conditions that have been defined as objectives” by reform movements).¹⁸⁴

The body of literature on PPCDAm reviewed in chapter 2 already gave us enough evidence to refute the characterization of PPCDAm as a mere symbolic victory. As we saw, different scholars have claimed that the 80% decrease in deforestation in the Amazon from 2004 to 2014 did not result from a potential drop in commodity prices but can be largely attributed to the establishment of sustainable settlements, indigenous lands, and conservation units, and to the enhancement of monitoring and control instruments under PPCDAm. Now, when it comes to other programs planned within the policy’s scope, it is not always easy to distinguish between fizzles and compromises. Defenders of programs that did not deliver the expected results – such as the mechanisms designed to strengthen sustainable production, as we will see in chapter 5 – may argue that they have not failed; actually, they have never been truly tried. Their implementation would have been akin to a “preordained fizzle:” so “underfunded,

¹⁸² CLUNE, *op. cit.* p. 86-87.

¹⁸³ CLUNE, *op. cit.* p. 87.

¹⁸⁴ CLUNE, *op. cit.* p. 88-89.

half-hearted, diluted, and compromised that success could not be expected;” only after more funding has been injected into the programs could a proper evaluation be carried out.¹⁸⁵

To avoid mixing up a discussion of facts with evaluative argumentation it would be useful, Clune argues, if, instead of ignoring the conflicts between points of view, researchers clarified in what sense their point of view enters the description of the empirical evidence.¹⁸⁶ I articulate my point of view by recurring to Clune’s thrust that implementations, taken collectively in the diverse areas of substantive policy, constitute the “alluvial formative process” of the modern welfare and regulatory state. I consider this lengthy and incremental process of state capacity building – when put at the service of reducing historic inequalities and deepening democracy – as a pre-condition to the concretization of constitutional rights, and the most urgent challenge calling for political action and academic commitment in contemporary Brazil. In such a context, the role of law can be understood, at a macro level, as coordinating the “legion of substantive interactions” that comprise the manifold of public policies, to the point one could speak of “law-as-state:” the “sum total of the structures and continuing interactions left as deposits by a multitude of separate implementations.”¹⁸⁷

To highlight the key role of the state in halting the expansion of predatory economic activities over the Amazon forest does not intend to diminish the importance of civil society actors. Social movements, NGOs, academics, journalists, private associations, international organizations, and multilateral bodies populate this case study alongside elected politicians, political appointees, and civil servants. The articulation of civil society was absolutely essential in all phases of the policy cycle. During the Workers Party’s administrations, they strategically pressured for sustainable settlements, indigenous lands, and conservation units to be prioritized in the government’s decision agenda, actively participated in policy workshops, contributing with proposals and feedback, and did not omit to voice criticism on the government’s limitations and contradictions, pushing it to go further in the concretization of constitutional rights of historically marginalized groups. In the period of authoritarian setback under Bolsonaro, civil society actors were paramount in denouncing the dismantling of socio-environmental policies, seeking to fill in gaps that deepened with the state’s retraction, and gathering evidence of the human rights violations committed, intending to make it possible to hold the responsible individuals accountable in the future.

¹⁸⁵ CLUNE, *op. cit.* p. 93-94.

¹⁸⁶ CLUNE, *op. cit.* p. 95.

¹⁸⁷ CLUNE, *op. cit.* p. 99.

In this sense, the present study adds to an extensive repertoire of research on public policies formulated and implemented during the nearly thirty years of democratic normality experienced between the two impeachment processes (1992 and 2016) that marked Brazil's New Republic.¹⁸⁸ By underscoring the radical heterogeneity of the state, these investigations point out that, in contemporary Brazilian history, the moments of greatest social change, of most creative and fruitful intervention in reality, occurred at the confluence of the state apparatus with the organicity of social movements. The next sections tell a part of this story in relation to PPCDAm, focusing on governmental action (which, over the course of almost 15 years, gained such a substantial degree of complexity as to deserve an analysis of its own) but also exploring the state's connections with civil society actors. Along the narration of PPCDAm's implementation, additional concepts are mobilized, to the extent that they are useful to illuminate conflicts, watersheds, and punts that mark the policy's history.

¹⁸⁸ One could cite, among many others: DE CASTRO, *op. cit.*; DE MELLO, *op. cit.*; SALLES, Gabriela Azevedo Campos. A institucionalização dos sistemas de políticas públicas no Brasil: uma comparação entre saúde, assistência social e educação (Doctoral Dissertation) – University of São Paulo, 2022; RUIZ, Isabela. Institucionalidade jurídica e retrocesso nas políticas públicas: uma análise do sistema único de assistência social (Master Dissertation) – University of São Paulo, 2021.

CHAPTER 3. GOVERNANCE AND EVOLUTION OF THE PLAN

3.1 Pre-PPCDAm period

From Brazil's redemocratization in 1985 until the implementation of PPCDAm in 2004, governmental efforts to curb deforestation in the Amazon remained, to a large extent, inefficacious. Nevertheless, important legal and institutional milestones were achieved in this period. Among others, we can point out the characterization of the Amazonian biome as "national patrimony" in the constitutional text of 1988; the creation of Ibama in 1989; the enactment of the law regulating the National Environmental Policy in 1990; the suspension in 1989 of tax incentives that fueled deforestation; the creation of the National Environmental Fund in 1989; the review in 1989 of the Forest Code then in force, expanding the areas of permanent protection, among other protective rules; and the launch of the satellite monitoring system Prodes by the National Institute of Space Research (Inpe), also in 1989.¹⁸⁹

In parallel, the Pilot Program to Conserve the Brazilian Rainforest, also called PPG7, started to be implemented in 1992. It was a multilateral initiative created at the idea of the German government with the support of other G7 members, and coordinated by the World Bank. As one interviewee who coordinated the PPG7 for a year phrased it: "the main actor was Germany, it pulled the other European countries and the European Community." The World Bank, in its turn, was being pressured by international NGOs for having financed the paving of highway BR-364 in the 1980s through the Northwest Pole project, and regarded the PPG7 as a venue to "compensate" the damages caused thereby. Between 1992 and 2004, the PPG7 assigned around 428 million dollars to conservation and sustainable use projects. The program is regarded as an experience generative of small-scale income alternatives, which promoted capacitation activities for subnational environmental agencies and gave financial support to the establishment of protected areas, especially indigenous lands.¹⁹⁰

All these efforts, however, delivered limited results for a very short period. The average annual deforestation rate of the 1980s, estimated at 21,130 km², dropped to 11,130 km² in 1991. Against the expectations generated in the Rio-92, nonetheless, deforestation began to grow again in the next year, reaching its historical peak – 29,059 km² – in 1995. In João Paulo Capobianco's reconstruction, the reasons for this increase can be mainly attributed to a lack of institutional synergy and a scarcity of budget, as the funding assigned to

¹⁸⁹ CAPOBIANCO, *op. cit.*, p. 31-32.

¹⁹⁰ CAPOBIANCO, *ibid* p. 39.

conservation initiatives paled in comparison to the volumes of credit available for infrastructure projects and agricultural activities.¹⁹¹

Although the historical peak of deforestation was recorded in 1995, since at the time Inpe's satellites had a lag of approximately two years, this rate actually referred to 1993/1994. Therefore, a co-cause that partially explains the peak is the expectation of governmental change as the presidential election of 1994 approached. As economic actors who profited from a predatory mode of exploitation of the Amazonian territory feared the new government would start combating land grabbing and deforestation, there was a rush to open new areas.¹⁹² The same pattern was observed 8 years later. The second historical peak was recorded in 2004 but actually referred to 2002/2003, on the verge of Lula's rise to the presidential office.

During Fernando Henrique Cardoso's second presidential term (1998-2002), the federal government instituted two initiatives aimed at reducing deforestation and promoting regional development in the Amazon, the "Positive Agendas" and the campaign "Amazônia Fique Legal." Their goal was to change the model of territorial occupation in the region by sewing agreements between the federal and subnational governments. The main consequence of the initiatives was the signing of terms of technical cooperation between the Ministry of the Environment, Ibama, and the Amazonian states, establishing what was known as "shared and decentralized management of forest resources' use policy."¹⁹³ One output of these terms of technical cooperation was a satellite monitoring system of rural properties, operated jointly by Ibama and the environmental agencies of the states, and experimentally launched in Mato Grosso and Acre. The system was to be implemented, monitored, and evaluated by a regional commission composed of the Ministry of the Environment and a forum of environmental secretaries of the Amazonian states and municipalities, productive sector, and civil society, under the coordination of the Secretariat of Coordination of the Amazon,¹⁹⁴ which was at the time led by Mary Allegretti. These initiatives were equally unable to diminish the rhythm of deforestation in a significant manner. Deforestation increased from 17,200 km² in 1999 to 21,300 km² in 2002, reaching its second historical peak – 25,396 km² – in 2003.

When Lula came to power in 2003, the embryo of a governance structure that had tentatively been put into practice during Cardoso's second term gained new political strength. The nomination of Marina Silva to the Ministry of the Environment was the first to be

¹⁹¹ CAPOBIANCO, *ibid* p. 32.

¹⁹² Interview with a former servant of the Ministry of the Environment.

¹⁹³ CAPOBIANCO, *ibid* p. 41.

¹⁹⁴ CAPOBIANCO, *ibid* p. 42.

announced (together with the nomination of Antônio Palocci to the Ministry of Treasury). This was read as a sign of prestige, since traditionally the environment minister was one of the last to be announced.¹⁹⁵ Silva enjoyed what Abers and Oliveira call “double citizenship”: as an elected senator and a renowned environmentalist who had for years militated alongside Chico Mendes, she had connections, influence, and easy transit both inside the Workers Party and the environmentalist movement. Her greatest advantage would also become the main source of friction in her administration: a permanent tension between loyalty to the party and loyalty to the environmentalist movement. All the secretaries appointed by Silva either had a professional trajectory of activism in NGOs (Capobianco herein included) or had occupied political positions previously associated with the Workers Party.¹⁹⁶

Under the initial leadership of Marina Silva, the new cabinet of the Ministry of the Environment designed three complementary strategies to change the Amazon’s model of development and halt environmental destruction, of which deforestation was considered the most visible sign: the Sustainable Amazon Plan (PAS), the Sustainable BR-163 Plan, and the Action Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAm).

PAS was published in 2008, but its origin is attributed to a term of cooperation signed by Lula and the governors of Amazonian states in the first presidential visit to the North region in 2003. Three years later, in 2006, public consultations with 1,653 governmental and civil society actors in all Amazonian states were conducted. The plan was composed of a set of guidelines to orient the implementation of policies in alignment with a broad notion of sustainable development, under the assumption that this would be sufficient to reverse the paradigm of “frontier economy” hitherto in force in the Amazon, while “strengthening citizenship and the rule of law to secure life quality to the region’s 25 million inhabitants.”¹⁹⁷

PAS basically contained general commitments, without establishing concrete goals or execution schedules. It didn’t assign clear competencies to governmental actors, nor did it allocate a budget for specific activities. In the document’s own language, “it [was] not an operational, but a strategic plan.”¹⁹⁸ In the critique of a journalist, the plan “looked like a business plan rather than a sustainable development project,” “mentioning a lot of big projects,

¹⁹⁵ CAPOBIANCO, *ibid* p. 44.

¹⁹⁶ ABERS, Rebecca; OLIVEIRA, Marília. Nomeações políticas no Ministério do Meio Ambiente (2003-2013): interconexões entre ONGs, partidos e governos. *Opinião Pública* 21(2), 2015, pp. 336-363, p. 356.

¹⁹⁷ BRAZIL. Interministerial Working Group. PPCDAm fase 3 (2012-2015), p. 28. Available at: <http://redd.mma.gov.br/images/publicacoes/PPCDAM_fase3.PDF>. Accessed on 10 October 2023.

¹⁹⁸ BRAZIL. Ministério do Meio Ambiente. Plano Amazônia Sustentável (2008), p. 8. Available at: <<https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/biblioteca/PAS-Presidencia-Republica.pdf>>. Accessed on 10 October 2023.

like hydroelectric dams and ports, but hardly touching on the issue of conservation.”¹⁹⁹ A servant involved in the writing of the plan put it less euphemistically:

I wrote most of the PAS, the Sustainable Amazon Plan, which is a fascinating case because it does not exist. Yet, everybody knows about it, everybody mentions it. It was something that didn't exist, it was just a concept. People love a concept that doesn't bite. Especially the Amazonian actors cited PAS a lot, because PAS didn't bite, it didn't have any concrete action, so they loved it. [...] PAS was nothing, you were not transferring any money, you were not transferring any competence, you were passing a written document. [...] PAS was just a vacuum thing. (Interview with a former employee of the Ministry of Regional Development).

The statement above was given by an individual who, after working in the Ministry of the Environment, was assigned to the Ministry of Regional Development, at the time led by Ciro Gomes. The interviewee was, in his own words, a “Mangabeirist,” part of the group within the federal government that supported Roberto Mangabeira Unger’s ideas for the Amazon region. Back then, Unger, who also held dual credentials as a respected academic (professor of Philosophy at Harvard Law School) and a political actor (one of the founders of the MDB party at the end of the military regime and advisor of Leonel Brizola’s and Ciro Gomes’ failed presidential campaigns), was the chief of the Secretariat for Strategic Affairs of the Presidency. The secretariat held ministerial status and was created by Lula especially to accommodate Unger. When the PAS was published in 2008, Lula transferred the coordination of its executive committee from the Ministry of the Environment to the Secretariat for Strategic Affairs of the Presidency, a decision often referred to as the trigger for Marina Silva’s resignation five days later and subsequent exit of the Workers Party.²⁰⁰

Unger and Silva represented two different views of sustainable development for the Amazon. While both politicians endorsed bioeconomy and the idea of adding technology to biogenetic resources and production processes of the so-called sociobiodiversity products, their projects disagreed, as we will see in chapter 5, on at least two fundamental points: infrastructure and land titling.²⁰¹ This difference was reflected in their relationship with the Amazonian governors, a connection that was strongly emphasized by the interviewees, both the “Mangabeirists” and those who supported Silva. Pressure from the governors, who “couldn’t

¹⁹⁹ PORTO, Edson; MARTINS, Américo. Na Amazônia está em jogo o futuro do Brasil, diz Mangabeira (BBC, May 15, 2008). Available at: <https://www.bbc.com/portuguese/reporterbbc/story/2008/05/080515_mangabeiraeps> Accessed on 9 November 2022.

²⁰⁰ ABERS; OLIVEIRA, *op. cit.* p. 347.

²⁰¹ In innumerable occasions Unger criticized what he called the “romanticization of pauperism.” Unger’s project of national development was radically grounded on technological innovation, a feature considered incompatible with the artisanal, ancestral, and small-scale mode of production of traditional communities. Cf. BIASOLI, Felipe. O Experimentalismo Institucional de Roberto Mangabeira Unger em Prol da Amazônia: Análise dos Casos do Acre e de Rondônia (Doctoral Dissertation) – Federal Fluminense University, 2018, p. 22-23, 72, 99, 133, 149, 188, 191-192, 219, 224.

stand the sight of Marina Silva,” was, in the perception of one of her allies, the main reason for transferring the coordination of PAS:

When he launched the program whose leadership should go to Marina, Lula changed her for Mangabeira Unger, due to pressure from the governors. Just so you can see how [difficult] the relationship was. The governors couldn't stand the sight of Marina Silva. At that moment the governments collaborated very little. Mato Grosso had advanced in the environmental licensing system of rural properties with satellite photos, which is the precursor of the CAR. But it was all more or less fake. Everything was high-tech, but they didn't fine, they didn't seize, they didn't enforce the laws. The relationship with the states was very, very, difficult. (Interview with a former employee of the Ministry of the Environment).

The decisiveness of the governors' support for Mangabeira's project of sustainable development was also corroborated by an interviewee who worked at the Secretariat for Strategic Affairs of the Presidency at the time. According to him, Mangabeira's approach to the states, based on the idea of cooperative federalism developed in his academic work, was “kind of revolutionary.” To the Secretariat for Strategic Affairs at the time, PAS had little practical meaning, but enormous symbolic significance. Its content would have been largely taken from the Program of Growth Acceleration (PAC) and was referred to as a paper “to be launched in one day” and “thrown in the trash in the other,” an abstract commitment that would not prevent “the things that need[ed] to be done in the Amazon” (Interview).

All these actions of the Secretariat of Strategic Affairs in the Amazon, the intellectual actions, the whole movement, the approach to the states and so on, were, from a certain point of view, kind of revolutionary, and generated this whole thing. The practical result of this, politically, was that Lula, surprising everyone, gave the coordination of PAS to Mangabeira. This gave the Secretariat of Strategic Affairs a very strong institutional political muscle in relation to the Amazon. [...] And Lula did this with a very ingenious argument, very skillful, as he is politically, as someone who says ‘I can't give it to the Ministry of Agriculture nor to the Ministry of the Environment, I must give it to a third party,’ which Marina considered absurd, because nobody imagined that the PAS could be given to the Ministry of Agriculture, do you understand? It would have been to the Ministry of Environment. [...] It was important to launch PAS because, as long as he didn't do it, people, government agents would be waiting for it: ‘PAS will solve all the problems.’ So that was the idea. (Interview with a former employee of the Secretariat for Strategic Affairs of the Presidency).

Differently from PAS, the Sustainable BR-163 Plan, the second strategic initiative put in motion by the Ministry of the Environment during Lula's first term, had clear competencies, defined specific activities, allocated budget, and delivered concrete – albeit limited – results. The plan detailed emergency and structural actions targeting the vicinities of the BR-163 highway, a road built in the 1970s by the military regime which for three decades remained one of the main fronts of predatory expansion over the forest. A proposal for repaving the highway had been elaborated in Fernando Henrique Cardoso's government, and in 2003 negotiations with a private consortium for the construction were in an advanced stage, under pressure from

local mayors and producers. The mere expectation of repaving had already triggered an increase in deforestation, land grabbing, and displacement of traditional communities along the highway's direct and indirect influence zone.²⁰²

In November 2003 the Ministry of the Environment organized a public meeting in the city of Sinop, Mato Grosso, to discuss social and environmental conditionalities for the repaving of BR-163. Marina Silva, Ciro Gomes, and Blairo Maggi, then governor of Mato Grosso, were present. The recommendations resulting from the meeting subsidized the publication of a first document in February 2004 and the creation of an interministerial working group by presidential decree in the following month. A second document was published in June 2006, after two rounds of public consultations with more than 5,000 people in 16 of the 73 municipalities composing the BR-163 influence zone. In December 2007, another decree created an Executive Committee within the structure of the working group.²⁰³

Out of the 277 measures established in the Sustainable BR-163 Plan to mitigate the impact of repaving the highway,²⁰⁴ only those related to land and territorial planning – namely, the creation of a mosaic of protected areas, among which conservation units and indigenous lands, within the so-called “Middle Land,” *Terra do Meio*, a large territory located between the Xingu and Tapajós Rivers, on the east and west side of BR-163 – have been deemed relatively successful. Protection of *Terra do Meio* had been a priority issue on the agenda of socioenvironmental movements in Pará at least since the 1970s.²⁰⁵ Yet, it was the murder of Dorothy Stang in February 2005 and the repercussions it aroused that are often recalled as triggering an immediate response from the federal government. Three different interviewees attributed to José Dirceu, then Minister of the Civil House of the Presidency, a prominent role in brokering the connection between social movements and the federal government, on the one side, and different actors within the federal government, on the other, to make “the state apparatus arrive” in the Amazon.

At the very beginning of 2003, the social movements and NGOs of the state of Pará held a meeting in Santarém, in Alter do Chão. They made an agenda for the federal government on the conflicts, on the agrarian issue, on the environmental issue. They talked a lot about the absence of the state. The problem is the absence of the state, the absence of the state. They built an agenda and brought it to the Civil House. They handed it over to José Dirceu. So the land use planning and everything that came after, is a little determined by this document. There was a sensitization in the center of the government for this. So that's what José Dirceu did. He called Márcio Thomaz Bastos, who was the Minister of Justice, and asked him to visit the areas, the hot spots of these

²⁰² CAPOBIANCO, *op. cit.* p. 48.

²⁰³ CAPOBIANCO, *op. cit.* p. 49.

²⁰⁴ CAPOBIANCO, *op. cit.* p. 52.

²⁰⁵ INSTITUTO SOCIOAMBIENTAL. Mosaico da Terra do Meio. Available at: <<https://uc.socioambiental.org/arp/5044>> Accessed on 9 November 2022.

conflicts. [...] I went on this trip. There was a meeting in Altamira and one in Belém. There the social movements were very emphatic that it was necessary to qualify Ibama, Incra, the Ministério Público, the Federal Police, everything. Márcio Thomaz Bastos very quickly provided this. So, that thing of the absence of the state starts to be dealt with through civil service exams. The state apparatus arrives. (Interview with a former employee of the Ministry of the Environment).

When Sister Dorothy died, Capobianco immediately mobilized a great, qualified team, full of technicians in georeferencing and everything. In a week he presented to Marina a plan of conservation units to be created in Terra do Meio. [...] I participated in an initial trip, when deforestation was just beginning to be controlled, it was 2003 to 2004. I was in the PPG7 and accompanied them on a trip to Terra do Meio. Arriving in Terra do Meio, Carolina, it was a completely frightening thing. We all came back terrified because, you see, the shocking deforestation rate only came out in 2004. At that time, you had a period of two years for Inpe to calculate the aggregate rate. Today it is less than a year. So that's when was when the scandal was revealed. We had gone there and had heard and seen all the signs that there was a large invasion front being prepared for Terra do Meio between the Xingu and the BR 163. [...] Capobianco took [the plan] to Marina in a week, Marina took it to José Dirceu. José Dirceu looked at it, approved it, sent it to Lula, Lula approved it. They created many conservation units. This slowed deforestation for more than 10 years, almost 15 years in this region. (Interview with a former employee of the Ministry of the Environment).

At this point, though, one cannot distinguish quite clearly between the actions taken under the Sustainable BR-163 Plan and those taken under the PPCDAm, since both plans make explicit mentions of the creation of conservation units and indigenous lands in the highway's influence zone. In hindsight, one notices a certain concentration of institutional efforts in the PPCDAm, to the detriment of PAS (which became a symbolic commitment under Unger) and the Sustainable BR-163 Plan (whose initiatives, except for the Mosaic of Terra do Meio, run out of steam over time due to the lack of permanent monitoring, updated time schedules, and regular budget).²⁰⁶ Not coincidentally, it was the restoration of PPCDAm, and not of PAS or of the BR-163 Plan, that was claimed in court by civil society in ADPF 760, "Brazil's biggest climate litigation case," discussed above in chapter 2. The plan survived, with surprising vitality, Lula's two presidential terms, Dilma Rousseff's one-and-a-half term, and Michel Temer's two years of interim government. It was only discontinued when Jair Bolsonaro came to power in 2019.

²⁰⁶ SCHÖNENBERG, Regine *et al.* What comes after deforestation control? Learning from three attempts of land-use planning in Southern Amazonia. *Gaia* 24(2), 2015, pp. 119-127, p. 123; PASTRE, Rafael. Plano de Desenvolvimento Regional BR-163 Sustentável: avaliação das repercussões das ações estratégicas em infraestrutura sobre o norte do Mato Grosso. *Revista de Economia Regional, Urbana e do Trabalho* 7(1), 2018, pp. 5-34.

3.2 PPCDAm's initial governance structure

Within this three-front institutional framework designed by Silva's team at the beginning of Lula's first term, PPCDAm was conceived as the "operational arm" of PAS and Sustainable BR-163 Plan. The decree institutionalizing PPCDAm and its permanent interministerial working group aroused much more controversy with governmental actors at the federal and state levels than the decrees supporting the creation of the two other plans. The first reason for this was PPCDAm's explicit, measurable goal of *reducing* deforestation and forest degradation in the Amazon. While for the actors in the Ministry of the Environment this should be an obvious formulation, other actors within the federal government doubted such an objective could be accomplished and did not want to commit to it.²⁰⁷

A second reason was Silva's insistence that the plan should not be coordinated by the Ministry of the Environment, but by the Civil House of the Presidency, which at the time was led by José Dirceu. Her rationale was that as long as the reduction of deforestation remained a goal confined to the Ministry of the Environment, it would be easily annulled or ignored by the actions of the other ministries. Within the Brazilian post-redemocratization institutional architecture, the Civil House is the body responsible for directly assisting the presidency in the coordination, integration, monitoring, and evaluation of government actions, enjoying the highest level of interlocution and summoning power among all ministries. Some actors within the government did not look favorably on the involvement of a body so close to the presidency in what was seen as a "strongly negative agenda." Members of civil society organizations also criticized the idea. Some thought that the Civil House would be easily captured by more powerful ministries whose actions contributed to deforestation, and that Silva's suggestion was an attempt to implant an escape valve in case the plan ended up being a failure.²⁰⁸

When the presidential decree institutionalizing PPCDAm's working group came out in 3rd July 2003, after weeks of discussion, it explicitly stated that reduction of deforestation was its main goal and assigned the Civil House as its coordinator. The decree brought three other innovations in relation to similar past experiences. It enabled the participation of civil society in the meetings of the working group, defined a deadline of 30 days for the working group to present a plan detailing emergency actions to be implemented, and limited the participation in the meetings to the ministries' second or third level employees, to avoid the

²⁰⁷ CAPOBIANCO, *op. cit.* p. 53.

²⁰⁸ CAPOBIANCO, *op. cit.* p. 53.

obstruction of decision-making due to the lack of authority of people in the room²⁰⁹ – a common tactic used by state actors to implicitly block undesired agendas. At the end of the negotiations, Lula supported Silva's stance, and the position of the Ministry of the Environment prevailed.²¹⁰

The PPCDAm was an articulation of Marina Silva. She was very smart. She said: as long as actions for controlling deforestation and for environmental management in the Amazon are restricted to the small, harmless and weak Ministry of the Environment, they will not get anywhere. She convinced José Dirceu, at that time the all-powerful Minister of the Civil House. He supported Marina's cause and involved the other actors. (Interview with a former employee of the Minister of the Environment).

While the plan was at the Civil House, the process was led by a minister who had a direct dialogue with the president. The order came from the president. I mean, to approve a resolution from the Central Bank cutting off credit to illegal rural producers in the Amazon this has to have an order from the president. This is not an initiative that can be taken by a president of an agency or a minister. This has to be a presidential order. So there was a high-level interlocution, and the coordination came from the Civil House. That is, when the Civil House calls, everybody comes. It has a great summoning power, even with the ministers. Because although they are all ministers, the Minister of the Civil House has a greater stature. [S]he is almost the, let's say, not the vice president, but the number three. There's the president, the vice president, and the Minister of the Civil House, who is the one in command of the process. We had real involvement from the top level of the ministries, because it was practically called by the president of the Republic. (Interview with a former employee of the Ministry of the Environment).

PPCDAm's working group was initially composed of twelve ministries: the Civil House of the Presidency; the Ministry of the Environment; the Ministry of Agriculture; the Ministry of Science and Technology; the Ministry of Defense; the Ministry of Agricultural Development; the Ministry of Development, Industry and External Commerce; the Ministry of National Integration; the Ministry of Justice; the Ministry of Mines and Energy; the Ministry of Labor; and the Ministry of Transportation. In March 2004 the Ministry of Planning, Budget and Management, and the Ministry of International Relations joined the group. Three other ministries were included in September 2010: the Ministry of Treasury, the Ministry of Fishing, and the Secretariat for Strategic Affairs of the Presidency.

For some actors in Silva's team, more than just a formality to increase the policy's legitimacy before public opinion, the interministerial character of the working group was a condition sine qua non for the success of policy instruments. Reducing deforestation and forest degradation in the Amazon biome in a more permanent way would require deep changes in the region's model of territorial occupation and development, an ambitious goal that could not forgo the involvement of other governmental branches. This interministerial governance of the working group, however, was not unanimously regarded as positive by all actors involved in

²⁰⁹ CAPOBIANCO, *op. cit.* p. 54.

²¹⁰ CAPOBIANCO, *op. cit.* p. 53.

the policy's implementation. Some questioned the true level of engagement of most ministries. In the words of the "Mangabeirist" quoted above:

What worked in PPCDAm was what would work practically without PPCDAm, only with authority given by the Civil House to the Ministry of Environment and Ibama. The presence of the Ministry of Social Development, Ministry of Regional Development, Ministry of Mines and Energy, Ministry of Transportation, etc. was irrelevant to the decrease in deforestation. Irrelevant. They were bureaucrats pretending to cooperate. [...] You have the impression that these ministries are there, but in fact, they are not there. It is not a priority for many ministers. They send someone from the second level, sometimes from the third level. The person is there but often doesn't know what he is dealing with. Only when concrete action is required, if there is enough pressure, which in general there isn't, things are solved. (Interview with a former employee of the Minister of Regional Development).

In March 2004 the working group published the first document registering the policy's planning. 54 members of the 12 ministries participated – some more deeply, others only superficially, – in its elaboration. Importantly, PPCDAm's first document of reference (as well as the other three that came later) drew extensively on the outputs of annual meetings held by the Ministry of the Environment with other state agencies (such as Inpe, Ibama, Embrapa, Ministry of Agriculture, Ministry of Mines and Energy, and Ministry of Agricultural Development), and civil society organizations (among which Amigos da Terra, Conselho Nacional dos Seringueiros, Coordenação das Organizações Indígenas da Amazônia Brasileira, SOS Amazônia, International Conservancy, Confederação Nacional dos Trabalhadores na Agricultura, Greenpeace Amazônia, Grupo de Trabalho Amazônico, Instituto Centro de Vida, Imazon, Ipam, Instituto Socioambiental, The Nature Conservancy Brazil, and WWF Brazil). Under the leadership of Marina Silva, the meetings occurred annually from 2003 to 2010, and the discussions held therein provided substantial contributions to PPCDAm's implementation.²¹¹ Another important initial input to PPCDAm was the Action Plan for the Prevention and Control of Deforestation, Forest Fires, and Illegal Timber Extraction previously elaborated by Ibama and the Ministry of the Environment, with the participation of other ministries and civil society organizations.²¹²

3.2.1 PPCDAm Phase I

The policy's first document of reference, herein called PPCDAm Phase I, provided a detailed diagnosis of the causes and effects of deforestation, a list of previous or ongoing innovative experiences from which inspiration could be drawn, an enumeration of strategic

²¹¹ CAPOBIANCO, *op. cit.* p. 57; BRAZIL. PPCDAm fase 1, *op. cit.*, p. 7.

²¹² BRAZIL. PPCDAm fase 1, *op. cit.* p. 7.

guidelines that would be both science-based and aligned with the general orientations of the Lula government, and a set of impacts expected from the policy's implementation. PPCDAm's overall objective was defined as "reducing deforestation rates in the Brazilian Amazon through a set of integrated actions of territorial and land planning, monitoring and control, promotion of sustainable activities, and infrastructure, involving partnerships among federal agencies, state governments, municipalities, civil society, and the private sector."²¹³

The plan's diagnosis drew attention to the fact that, in 2004, 24% of the Amazon was claimed as private properties, 29% were legally protected areas (conservation units and indigenous lands), and 47% were public lands "over which public surveillance was still incipient." Part of the protected areas was threatened by gradual processes of invasion, illegal occupation and exploitation of resources, displacement of indigenous peoples and traditional communities, especially in regions where the agricultural frontier was expanding and large construction works were planned or under execution. Some conservation units had not been effectively implemented and were in an extremely fragile situation. The plan also pointed out that there were circa 380,000 small rural properties in the Amazon, either motivated by agrarian reform programs or resulting from migration and occupation.²¹⁴

The diagnosis of the direct and indirect causes of deforestation indicated a high geographical concentration: nearly 70% of all deforestation between 2000 and 2001 had occurred in around 50 municipalities, which occupied an area equivalent to only 15.7% of the Amazon region and were located in Mato Grosso, Pará and Rondônia. That notwithstanding, new fronts of deforestation, both in areas adjacent to the arc of deforestation and in localities in Central Amazon until then considered less vulnerable, were mapped and identified. This initial x-ray also signaled that 80% of all deforested area until 2004 was converted into pasture. The expansion of cattle ranching into the region in the absence of the tax incentives formerly in place was explained by the advent of "technological and managerial adaptations" in regions of consolidated frontier and the work of middle and large ranchers, typically with the support of smaller intermediaries.²¹⁵

The presence of mechanized soy plantations, which had increased by 57.3% from 1999 to 2001 in the Amazon, and the characteristics of the timber industry (which, as a rule, lacked licensing, relied on clandestine roads, misused fire, and wasted massive amounts of wood) were also mapped by PPCDAm's first document of reference. The misuse of fire for "cleaning"

²¹³ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 19.

²¹⁴ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 20-21.

²¹⁵ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 10-12.

secondary vegetation was treated separately as a driver of deforestation. The technique was so widespread, especially in extensive, poorly managed pastures, that its negative impacts (emission of greenhouse gases and occurrence of forest fires) deserved special attention.²¹⁶

Furthermore, the diagnosis estimated that more than 25% of all deforested areas – around 165,000 km² – showed signs of degradation that indicated abandonment or underutilization after the initial removal of vegetation. The plan also highlighted that circa 75% of all deforestation between 1978 and 1994 occurred within a 50 km band on either side of paved roads in the region. Infrastructure projects (or even the mere expectation thereof) would stimulate land grabbing and speculation, inter-regional migration, opening of new deforestation fronts, and a disordered occupation of space. Different land-grabbing schemes were identified: some grabbers sell the same land to several buyers; others register a larger extension than originally acquired; some tamper property titles and certificates; and others sell public lands to third parties, especially within indigenous lands and conservation units. Land grabbing, – often associated with slave labor, illicit firearm carrying, tax evasion, money laundering from drug trafficking, illegal logging, and other crimes – was attributed to three main factors: a lack of adequate supervision by the state over notary offices, which often recognize illegitimate land transactions; weaknesses in procedures to verify the legitimacy of land titles; and electoral interests of local politicians, who, in collusion with land agency officials, encourage occupations with promises of future concession of land titles.²¹⁷

Finally, the plan’s diagnosis delved into the peculiarities of two land categories: rural settlements and protected areas (among which indigenous lands and conservation units). PPCDAm’s formulators observed that previous governments had prioritized the Amazon for the establishment of rural settlements, turning the Amazonian territory into an “escape valve for social justice in other regions.”²¹⁸ This observation harkens back to an argument done by Octavio Ianni in 1981: colonization policies sponsored by the military dictatorship also served the purpose of redirecting surplus labor from the Northeast and the Center-South to the Amazon by displacing unemployed, underemployed, and superfluous rural populations away from the regions where the agribusiness has been consolidated for the longest time.²¹⁹

PPCDAm’s first document of reference was attentive to the fact that extensive ranching, alongside rotational agriculture, was among the predominant land uses in rural

²¹⁶ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 10-12.

²¹⁷ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 10-12.

²¹⁸ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 10-12.

²¹⁹ IANNI, Octavio. *A Ditadura do Grande Capital*. São Paulo: Expressão Popular, 2019 [1981], p. 226.

settlements, and that many settlements were going through a process of “land (re)concentration.” In the absence of integrated policies to provide conditions for smallholders to fixate on the land and compete in local markets, many families end up abandoning their lots in search of employment or land in new occupation fronts. The buyers, who are typically local traders, loggers, and cattle ranchers (including more successful settlers), acquire the land through informal transactions and often use it to practice extensive ranching, resulting in increased deforestation.²²⁰

Protected areas, in turn, are described as playing an important role in the conservation of extensive contiguous areas of forest, in many cases being even able to contain the accelerated expansion of agricultural and logging fronts. With regards to protected areas, the main challenges identified were to demarcate boundaries more visibly; to promote informational activities with surrounding or resident populations; to incentivize changes in the modes of occupation and use of natural resources in surrounding areas, with a view to reduce the pressure exerted by logging and mining on adjacent protected territories; and to expand the number and size of indigenous lands and conservation units, starting by priority regions.²²¹

Based on this assessment of the direct and indirect causes of deforestation, PPCDAm’s first document of reference established ten strategic guidelines to orient its implementation: (1) Valorization of the forest through biodiversity conservation, forest management of timber and non-timber products, and provision of environmental services, as foundations of a new model of regional development aimed at enhancing the life quality of local populations, reducing social inequalities, and improving economic competitiveness and environmental sustainability. (2) Incentives for better uses of already deforested areas, contemplating technological innovations, such as the management of pasture systems, ecological agriculture, and the recovery of degraded areas, as a way to increase productivity and reduce pressures on remaining forests. (3) Adoption of urgent measures for land and territorial planning to reduce free access to natural resources for predatory use and strengthen instruments for democratic and sustainable management of the territory. Planning should prioritize the fight against land grabbing, regularization of land ownership, establishment of alternative models of agrarian reform more appropriate for the Amazon, and the creation and consolidation of conservation units and indigenous lands. (4) Improvement of instruments for monitoring, licensing, and inspection of deforestation, through the enhancement of methodologies and integration with preventive incentives that stimulate sustainable practices among users of natural resources. (5)

²²⁰ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 12.

²²¹ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 12.

Strengthening of a culture of strategic planning of infrastructure projects. Planning should involve the adequate analysis of alternatives (in terms of cost-benefit and environmental and socio-economic impacts), preventive, mitigating, and compensatory measures, and the *ex-ante* execution of territorial ordering actions on a sustainable basis, with transparency and participation of civil society. (6) Encouragement of cooperation between the federal institutions responsible for policies related to the dynamics of deforestation in the Amazon, overcoming historical trends of dispersion and isolation of the environmental area within the government. (7) Adoption of a decentralized and shared policy management style through partnerships between the Union, states, and municipalities, contemplating their respective needs for institutional strengthening. (8) Stimulation of active participation of different interested sectors of Amazonian society in policies related to deforestation control and sustainable productive alternatives, as a means to increase the quality of their implementation with transparency, social control, and political appropriation. (9) Learning from successful pilot experiences, giving them scale through incorporation into public policies. (10) Implementation of a system to monitor the dynamics of deforestation, allowing for the permanent analysis of the efficiency and effectiveness of policy instruments, in order to guarantee a permanent process of learning and improvement, with transparency and social control.²²²

PPCDAm's scope was divided into four thematic axes, to consolidate proposals for strategic and emergency actions and give concretion to the envisaged guidelines: (1) land and territorial planning; (2) monitoring and control; (3) support to sustainable productive activities; and (4) infrastructure. The latter axis, infrastructure, was transferred in 2004 to the scope of PAS, and is not featured as a subgroup in the next policy documents.²²³ The total budget for strategic and emergency actions for the 2004 fiscal year was set at BRL 394 million, of which 62% was destined for land and territorial planning, 21% for monitoring and control, and 17% for sustainable productive activities.²²⁴ The plan also detailed the specific objectives, responsible institutions (coordinators, executors, and partners), execution schedule, indicators, and estimated implementation costs for 149 activities along the thematic axes. The most important activities and their evolution throughout the policy's next three phases will be discussed in chapter 4.

²²² BRAZIL. PPCDAm fase 1, *op. cit.*, p. 18.

²²³ MELLO; ARTAXO, *op. cit.* p. 117.

²²⁴ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 39.

3.2.2 The first independent audit

At the end of 2007, an independent audit was hired to evaluate the first four years of PPCDAm's implementation. The two main weaknesses pointed out by the agronomist engineer Guilherme Abdala and his team were a lack of clear and systematized processes of articulation between diverse interest groups, especially the state and municipal governments, civil society, and the private sector; and a lack of clear knowledge of sub-regional and micro-regional particularities and peculiarities.²²⁵ The three subgroups received different evaluations: the performance of land and territorial planning was assessed as intermediate, the performance of monitoring and control as high, and the performance of sustainable productive activities as low. Abdala's team suggested a review of the plan based on a framework that encompassed clearer direct and indirect causal inferences; goals that stated more precisely their quantitative, temporal, and spatial dimensions; a standardization of indicators; and a prioritization of strategic actions according to the formulated net of causal inferences. They also recommended that the next phase should devote attention to the policy's political feasibility in the middle and long terms; its legitimacy in terms of transparency and social control; decentralization and involvement of state governments; articulation with initiatives to reduce carbon emissions; shared responsibility for deforestation; and focus on priority municipalities.²²⁶

3.2.3 PPCDAm Phase II

The diagnosis and feedback provided by the independent audit subsidized new rounds of discussion within the working group, in dialogue with the environmental secretariats of Amazonian state governments and NGOs.²²⁷ PPCDAm Phase II was launched in November 2009, with a planned duration until 2011. Curiously, in this second document of reference PPCDAm's working group felt necessary to spell out the policy's underlying notion of development, by briefly quoting Amartya Sen's *Development as Freedom*: "new opportunities of development are here understood in the same sense attributed by the Nobel of Economics Amartya Sen, that is, as the expansion of freedom to all citizens."²²⁸

²²⁵ MELLO; ARTAXO, *op. cit.* p. 118.

²²⁶ MELLO; ARTAXO, *op. cit.* p. 119.

²²⁷ MELLO; ARTAXO, *op. cit.* p. 120.

²²⁸ BRAZIL. Interministerial Working Group. PPCDAm fase 2 (2009-2011), p. 9. Available at: <http://redd.mma.gov.br/images/publicacoes/PPCDAM_fase2.pdf>. Accessed on 10 October 2023.

Following the audit's recommendations, the plan reviewed its logic framework by including additional operational plans that specified more clearly the motives, expected results, result indicators, and geographical boundaries for each activity, now divided into strategic (macro actions, directly supervised by the working group's Executive Committee), and complementary (ordinary actions, executed by the responsible institutions). PPCDAm Phase II also provided a more robust web of direct and indirect causal inferences on the drivers of deforestation and the interventions needed to halt it. The main change identified in the dynamics of deforestation was the size of deforestation patches (individual deforestation polygons measured in satellite imagery), a process later called "pulverization" or "termiteization" of deforestation, which will be discussed in more detail in chapter 6.

The document situated the PPCDAm vis-à-vis other related policies such as the PAS, the Sustainable BR-163 Plan, the National Policy on Climate Change (Law 12,187/2009, whose instruments incorporated PPCDAm and PPCerrado as sectoral plans),²²⁹ and the plans for the prevention and control of deforestation elaborated by the Amazonian states. By the publication of PPCDAm Phase II, Amazonas, Mato Grosso, Pará, Acre, Tocantins, Amapá and Rondônia had already published their plans. Moreover, the document brought an updated list of innovative experiences, which now included, among others, the Soy Moratorium, the CAR, and Acre's law on economic-ecological zoning. The total budget for strategic and complementary activities comprehending the whole period from 2009 to 2011 was estimated at BRL 1,223,577,295.²³⁰ Around 211 activities were planned for the period from 2009 to 2011, some of which will be discussed in chapter 4.

3.2.4 The second independent audit

A second independent audit, this time carried out jointly by the Brazilian Institute for Applied Research (Ipea), the German Society for International Cooperation (GIZ), and the Economic Commission for Latin America and the Caribbean (Cepal), was conducted between

²²⁹ The knowledge acquired in the implementation of PPCDAm helped to envisage a policy for the bordering biome Cerrado, which had long been identified as a leakage area and a sacrifice zone for the conservation actions taken in the Amazon. The PPCerrado phases I (2010-2011) and II (2014-2015) were respectively launched in 2010 and 2014. PPCerrado had ostensibly a lower level of implementation than PPCDAm, to a great extent due to the strength of agribusiness lobby. The consolidation of the agribusiness into the Central-west region historically precedes its expansion into the North region, in such a way one could say the agribusiness exerts an even greater political and economic hegemony over the former than the later. The Agribusiness Parliamentary Front (FPA) has repeatedly succeeded, for instance, in blocking bills that sought to include Cerrado as a national patrimony in the federal Constitution and increase the minimum percentage of legal reserve in the biome. A deeper comparison between the efficacy of PPCerrado and PPCDAm, however, exceeds the scope of this dissertation.

²³⁰ BRAZIL. PPCDAm fase 2, *op. cit.*, p. 65.

October 2010 and July 2011. The audit concluded that PPCDAm had so far achieved “relative success.” Whereas “the deforestation rate ha[d] been declining up to 2010 and there [was] a consensus that the plan actions have influenced this downward trend,” PPCDAm’s axes again displayed different levels of performance. Monitoring and control continued to achieve better results than sustainable productive activities and land and territorial planning. The audit credited both land and territorial planning (mainly the creation of new protected areas in risk zones) and monitoring and control with the main responsibility for the decline of deforestation during Phase I, while for the decrease observed in Phase II only the actions related to command and control would stand out. Operation Green Arch (discussed in chapter 4 below) represented an important first step towards a positive agenda targeting sustainable productive activities, a demand increasingly voiced by rural producers, as the “teeth” of command and control activities began to bite harder.²³¹ However, state and local governments did not provide adequate structure to assist producers in regularizing properties, and funding policies for sustainable products still lacked a systematic integration with other important policies implemented in the region, such as the Program for Growth Acceleration (PAC).²³²

Furthermore, the audit emphasized the necessity of adapting the monitoring and control techniques to the decreased size and greater territorial dispersion of deforestation patches. It also highlighted the urgency in expanding land regularization efforts such as the Terra Legal Program to areas belonging to subnational states and rural settlements. The latter was the only land category lacking a specific strategy to control deforestation, even though its contribution to deforestation represented at the time about 25% of annual deforestation.²³³

The audit issued around 50 main recommendations. I discuss those concerning PPCDAm’s three thematic axes in chapter 4 below. The ones concerning the plan’s general aspects can be summarized as follows. First, PPCDAm’s coordination should remain at the high level of the federal government. Second, bureaucratic barriers to environmental and land tenure regularization, particularly for smallholders, should be reduced. Third, the focus on priority municipalities should be maintained, with attention to leakage to bordering municipalities. Accelerating the Terra Legal Program should become PPCDAm’s priority, which requires the

²³¹ The producers’ demand for a positive agenda was skillfully converted into political backlash against command and control through the lobby of the Agribusiness Parliamentary Front, resulting in the reform of the Forest Code in 2013. PERES, Isabela Kojin. *Conflitos nas políticas ambientais: uma análise do processo de alteração do Código Florestal Brasileiro* (Master Dissertation) – University of São Paulo, 2016, p. 63-65.

²³² IPEA, GIZ, CEPAL. *Avaliação do Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal (PPCDAm) 2007 – 2010*. Available at: <<https://repositorio.cepal.org/items/7e8f1201-73ff-4c8e-bc09-25adf44a1e74>>. Accessed on 10 October 2023.

²³³ IPEA, GIZ, CEPAL, *ibid* p. 33.

implementation of an integrated system across various agencies. Transitioning from predatory practices to sustainable production models should be PPCDAm's second priority, which requires an integrated approach that includes research, training, technology supply, credit, technical assistance, logistics, and market access. Furthermore, credit lines for sustainable production should have fewer requirements than those for conventional products. A strategy for controlling deforestation in agrarian reform settlements should be articulated. Besides, the additionality criteria of the Amazon Fund should be maintained, and the fund should support actions that have defined time horizons (more about the fund's functioning in chapter 9). The federal government could create new modalities of transfer payments to states and municipalities conditioned on environmental performance. A consultation forum involving representatives from state governments, civil society, and the productive sector, as well as thematic and participatory forums should be created. Operation Green Arch should enter a phase where states and municipalities have greater participation and accountability. Finally, the federal government should stimulate more proactivity from the states and municipalities in general. Joint action could take different forms, such as agreements, plans, targets, incentives, regional cooperation, and consortia.

3.3 PPCDAm's second governance structure

PPCDAm's working group invited the audit team to participate in some of the review steps of the plan's third phase. The review process encompassed five workshops and several ordinary meetings, which involved the participation of 150 people representing 40 federal agencies, all environmental secretariats and land institutes of the Amazonian states, and 11 NGOs.²³⁴ PPCDAm's third document of reference, published in June 2013, adopted almost all of the audit's recommendations. Yet, the audit's first and foremost recommendation – that coordination should remain at a high level of the federal government – was ignored. In March 2013, a decree transferred PPCDAm's coordination from the Civil House of the Presidency to the Ministry of the Environment. In the understanding of two former members of PPCDAm's working group, this movement marked the beginning of the plan's weakening. In the absence of the greater summoning power exercised by the Civil House, the meetings began to be attended primarily by secretaries (third-level bureaucrats within the federal executive branch) instead of by ministers or executive secretaries (first and second-level), weakening the working

²³⁴ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 69.

group's decision-making power. The political message sent by the coordination transfer was that, under Rousseff, the agenda of deforestation control lost the importance it previously enjoyed in the Lula era.

In concrete terms, deforestation in the Amazon was falling. The lowest rate was in 2012. At that moment, the Civil House said 'our role in this agenda is diminishing. We take care of crises, problems. As this agenda begins to stabilize and move forward, there is no longer reason for the Civil House to play a [coordinating] role.' At the time, the Minister of the Civil House was Gleisi Hoffmann, who has the same mindset as President Dilma. The Minister of the Environment was Izabella Teixeira. Izabella understood that it was strategic for the Ministry of the Environment to remain in a position of protagonism. Gleisi saw it in the same way, because she wanted to take care of other issues, such as the PAC and countless other problems. So she was trying to get rid of those agendas that could go to other ministries. This was one of the reasons why I left PPCDAm. Because I thought this could be a weakening, I was in the operation. We knew that if PPCDAm left the Civil House, the political message would be that the agenda lost importance. It would be even more difficult for us to get results. But it was a decision, above all by Minister Gleisi, who thought [PPCDAm] should really leave. And this decision prevailed. But I thought it was a mistake. I still think. For issues that necessarily require coordination of ministries, it is essential to have a voice of command, you know? One voice. Because the Ministry of the Environment is always seen as, let's say, the first interested party or a partial ministry that doesn't see the whole. We were weakened. (Interview with a former employee of the Ministry of the Environment).

The structuring question was whether the coordination would continue at the Civil House or would go to the Ministry of the Environment. It was then that I think the plan began to lose momentum, to lose strength. While it was in the Civil House, the minister who led this process had a direct dialog with the president. [...] When one moves the general coordination of PPCDAm to the Ministry of Environment, the Ministry calls the ministers, [but] the ministries send the third level. [...] And these secretaries don't necessarily commit themselves to making things happen, because they have to go back and talk to their ministers to see if the ministers agree. Sometimes, the minister doesn't agree and has to have a new round of conversation with them. In other words, it is a lack of coordination. I think this was, in my opinion, the reason why the PPCDAm... After Marina left, Minc came in. Minc held on a little. Minc left, Izabella came in. She had been Minc's executive secretary and held on a little more, and then it went wrong. Why? Because when Dilma became president this issue was no longer a priority. With Lula, he had, he has a political sagacity. He knew that reducing deforestation in the Amazon would give him the status of someone who is really facing the main problem in Brazil and the world. Because Lula looks outwards too. Dilma doesn't, Dilma is more like a manager. And this Amazon deforestation thing hinders Belo Monte, hinders infrastructure works. [She saw it as] a hindrance and, therefore, she did not pay the same attention. From a structural point of view, that was the policy's biggest problem. It was no longer a matter of relevant national political interest. It became a negative matter and lost strength until we got to the current president of the Republic [Jair Bolsonaro], who is against the plan. It is not that he thinks the plan is irrelevant. He extinguished it. (Interview with a former employee of the Ministry of the Environment).

The interviewee quoted above employed the scheme (already consolidated in the Brazilian public opinion and ready-at-hand in journalistic and even academic commentary) of disavowing Rousseff's decisions by negatively labeling her leadership style "managerial," in

opposition to a more positive description of Lula as a true “politician.”²³⁵ Whereas vehemently refusing the gender-biased downplaying of Rousseff as a “manager,” one must acknowledge that transferring the coordination of PPCDAm from the Civil House of the Presidency to the Ministry of the Environment – not only today in retrospect but already from the knowledge available at the time, – was a misguided decision.

3.3.1 PPCDAm Phase III

Despite having neglected the admonition to keep policy coordination at a high level of the federal government, PPCDAm Phase III adopted many recommendations of the second independent audit. Sustainable productive activities gained centrality: not only most of the budget for the third phase was allocated to this axis, but also new funding channels and mechanisms to support commercialization (detailed in chapter 4) were structured to foster the transition toward a new productive model in the region. Operation Green Arch, well evaluated by the audit, gained a permanent character and its own management committee. The focus on priority municipalities was enhanced. Municipalities that hosted constructions promoted by the Program for Growth Acceleration (PAC), as well as those that presented the lowest Human Development Index (HDI) of the region, started to be more closely monitored.²³⁶

Accordingly, the central question to be addressed by PPCDAm was reformulated in a way that tried to connect the main concerns of the positive and negative agendas: “changing the market logic in which bare land (without forest) is worth more than land with forest.” This challenge would require changing “an extremely deep-rooted cultural [belief] that forest does not represent value, capital or profitable economic activity, but only an obstacle that implies costs for the producer to start producing.”²³⁷ Total implementation costs for phase III were estimated at around BRL 1,428,000,000.²³⁸

Correspondingly, PPCDAm’s framing of the direct and indirect causes of deforestation – now called “logic model” – was updated. It incorporated a detailed analysis of the evolving

²³⁵ As pointed out by Céli Jardim, what is usually meant by “managerial” in the evaluation of Rousseff’s presidency is a supposed lack of ability in negotiating with congressmen. Such “inaptitude,” in reality, was nothing more than inflexibility with the nesty quid pro quo of traditional male politics and intransigence with the preposterous self-entitlement of established political actors. Unable to discredit her as corrupt, the tactic used to disqualify Dilma was, strangely enough, to deny her political virtù, pejoratively reducing her to a mere technician, a manager, an order-taker. Unsurprisingly, the same attributes often seen as meritorious in male candidates are transformed into defects when referring to a woman. PINTO, Céli Regina Jardim. Dilma – uma mulher política. In: RUBIM, Linda; ARGOLLO, Fernanda (orgs). *O Golpe na perspectiva de Gênero*. Salvador: EDUFBA, 2018, pp. 23-32.

²³⁶ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 98; 110.

²³⁷ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 65.

²³⁸ WEST; FEARNSSIDE, *op. cit.* p. 3.

patterns of deforestation according to state, municipality, patch size, land category, and related economic activity. The new diagnosis pointed out that, in 2011, the states of Mato Grosso, Pará and Rondônia together corresponded to more than 80% of all deforestation in the Amazon. While Mato Grosso's proportional share reduced over the years, the relative contribution of Amazonas and Maranhão increased. On the other hand, Amapá, Roraima, Tocantins and Acre together contributed less than 10% of the total deforestation. This evolving dynamic is reflected in the prioritization of PPCDAm's activities. Whereas in 2004 Mato Grosso was the plan's main focus, Pará and Rondônia began to be prioritized respectively in 2006 and 2011.²³⁹ The annual deforestation rates of 52 municipalities officially listed as priority targets (6 of which had been excluded from the list but were still being closely monitored) were also detailed in the plan.

The new logic model equally incorporated the identified change in the size of deforestation patches. In the early 2000s, polygons of 25 to 500 hectares contributed to 50% of the annual deforestation rate, polygons smaller than 25 hectares contributed to 30% and those larger than 500 hectares to 20%. In 2011, mirroring the phenomenon of pulverization or termiteization of deforestation, polygons smaller than 25 hectares contributed to more than 60% of deforestation, polygons with 25 to 500 hectares to 25% and those larger than 500 hectares to just 5%.²⁴⁰ As for land category, in 2011 deforestation in protected areas (conservation units and indigenous lands) represented 9.7% of the total; in rural settlements, 25.3%; in undesignated public lands, 22.4%; in private properties registered in the CAR, 18.7% (this figure, in particular, included only Pará and Mato Grosso); and in non-registered private properties, 22.8%.²⁴¹

Regarding the economic activities fueling deforestation, the plan's diagnosis pointed out that 60% of the area deforested until 2008 was occupied by pasture, something that was partially attributed to the increase of land price and expansion of soy plantations in the Central-west and western Bahia. The plan also highlighted how fostering intensification was a priority challenge to reverse the low productivity of ranching in the Amazon region, as the average number of cattle head per hectare was between 0,5 to 1. The tight links between the timber industry and agribusiness equally received emphasis in the conception of the updated logic model. PPCDAm's formulators outlined that, even though the first acts as a provider of capital to the latter, the timber industry could not be merely conceived as an accessory to agribusiness; it also exerted deforestation pressure on its own. Correspondingly, reducing waste was

²³⁹ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 51.

²⁴⁰ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 53.

²⁴¹ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 58.

mentioned as an important possibility of intervention regarding timber. In Pará, which in 2009 accounted alone for 47% of all timber extracted in the Amazon, the industry's average processing coefficient was only 41%: 14.2 million cubic meters of extracted timber resulted in the production of just 5.8 million cubic meters of processed wood.²⁴²

Targeting the audit's recommendation that the federal government should stimulate a more profound involvement from other actors, the general guidelines orienting the logic model of PPCDAm Phase III raised decentralization as a motto. They underscored the importance of adopting a decentralized and shared management style through partnerships among the Union, states and municipalities, which included federal support for the implementation of plans elaborated by the subnational states. Moreover, they included measures to foster more active participation of different sectors of the Amazonian society as a means to increase the plan's implementation, transparency, social control and political appropriation. Expanding and incentivizing sectorial pacts as a way to secure the commitment of the productive sector and enhancing the plan's visibility through official communication channels was likewise foreseen in the guidelines.²⁴³

Also in attendance to the audit's suggestions, to tackle the challenges brought by decentralization the plan's governance structure suffered a major reform. Before being composed only of the interministerial working group, executive committee and thematic subgroups, from Phase III onward PPCDAm's governance began to be divided into three main spheres: Executive, Consultative, and Transparency. The Executive sphere was restructured into four levels: the highest was occupied by the interministerial working group; the second by the executive committee; the third by a novel mixed committee for joint implementation; the fourth by the thematic subgroups and new conciliation chambers. The mixed committee for joint implementation was a space created to level federal and state actions, as well as to integrate the deliberations of the Forum of Environmental Secretariats of the Legal Amazon. The conciliation chambers were meant to mediate conflicts of information or interest among federal agencies and between these and state agencies, with a view to avoiding judicialization.²⁴⁴

The Consultative sphere congregated four participative instantiations: the Forum of Governors of the Legal Amazon; the Forum of Environmental Secretaries of the Legal Amazon; the Brazilian Forum on Climate Change, and the Sustainable Amazon Region Forum. Civil society had seats in the last two of them. The Transparency sphere, in its turn, was materialized

²⁴² BRAZIL. PPCDAm fase 3, *op. cit.*, p. 64-67.

²⁴³ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 73.

²⁴⁴ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 76.

basically in two regular meetings: the Technical and Scientific Seminar on the Analysis of Prodes Data, which was opened to civil society and took place on an annual basis since 2003; and the workshops on information leveling and integration of PPCDAm, which involved mainly representatives of federal and state governments.²⁴⁵

The plan's connection with other policies for the Amazon was systematized. The document made explicit that, besides PAS, Sustainable BR-163 Plan, and the National Policy on Climate Change, under PPCDAm were also brought together the Plan for the Sustainable Regional Development of the Xingu (PDRS Xingu); the National Plan for the Promotion of Sociobiodiversity Supply Chains (PNPSB); the Policy to Guarantee Minimum Prices for Sociobiodiversity Products (PGPM-Bio); the National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI); the Low-Carbon Agriculture Program (ABC Plan); the Amazon Region Protected Areas Program (ARPA); the Community and Family Forest Management Program (PMFC); the Environmental Regularization Program (PRA); the National Program for Strengthening Family Agriculture (PRONAF); and the Terra Legal Program. Even though each of these policies had its own budget and goals, they should be planned in consonance and integration with PPCDAm's objectives.²⁴⁶

3.3.2 PPCDAm Phase IV

The fourth phase of PPCDAm began in 2016 and was intended to last until 2020. These years were chosen as start and ending points to mirror Brazil's new Nationally Determined Contribution (NDC) submitted to the Paris Agreement in 2015 and the next federal budgetary plan (the *Plano Plurianual* – PPA), whose time horizon was 2016 to 2019. The policy's fourth document of reference, however, was only published in 2018, in the middle of the ongoing phase. Its formulation and publication were preceded by two rounds of workshops: the first took place in June 2016 and involved representatives of the federal and subnational governments, the productive sector, and civil society; the second happened in October 2016 and was restricted to the federal government.²⁴⁷ The planning of PPCDAm Phase IV, therefore, took place almost entirely during Rousseff's impeachment process, which began in December 2015 and ended in August 2016.

²⁴⁵ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 77.

²⁴⁶ BRAZIL. PPCDAm fase 3, *op. cit.*, p. 30.

²⁴⁷ BRAZIL. Interministerial Working Group. PPCDAm fase 4 (2016-2020), p. 9. Available at: <http://combateadodesmatamento.mma.gov.br/images/conteudo/Livro-PPCDam-e-PPCerrado_WEB_1.pdf>. Accessed 10 October 2023.

The logic model of PPCDAm Phase IV presented no changes in relation to the one formulated in 2012, “since the causes of deforestation [were] considered to be practically the same.”²⁴⁸ The plan’s governance structure, however, changed. A unified executive commission was created to oversee both PPCDAm and PPCerrado, under the justification that “despite certain specificities related to each biome, the problem of deforestation, in general terms, has similar causes in the Amazon and the Cerrado.”²⁴⁹ The previous spheres of consultation and transparency were joined together, and there was no longer any mention of conciliation chambers mediating conflicts of information or interest among federal agencies and between these and state agencies.

Following this direction of task streamlining and resource constraint, the implementation monitoring ceased to be done at the activity level and was planned to take place in a more aggregated form, encompassing instead entire lines of action. To that aim, the design of more precise indicators of results, processes, and inputs was considered essential. The policy’s goals established territories with high deforestation and high forest cover that are adjacent to areas under pressure as priorities.²⁵⁰ Forest degradation (a phenomenon both different from and interconnected with deforestation) was also more explicitly included in the policy’s focus. Correspondingly, the regeneration of degraded pastures and forest restoration also became more clearly priorities of the plan.²⁵¹ A new axis, called normative and economic instruments, was created. Its purpose was to agglutinate transversal issues to all axes, “bringing together efforts to elaborate norms and economic, fiscal and tax instruments that may contribute to the combat of deforestation in all its dimensions, both in terms of prevention and control.”²⁵²

Amidst changes reflective of PPCDAm’s loss of relevance in the federal agenda – such as transfer of coordination, unification of executive committees, monitoring at a more aggregated level, – the policy’s fourth document of reference included an important update with regards to its diagnosis tools. It incorporated more thoroughly the first results achieved by the TerraClass project, an initiative led by Inpe and Embrapa with the support of the Ministry of the Environment. The project developed technology to refine satellite data and analyze longitudinal patterns of land-use change, exploring 10-year sequences of subsequent land uses

²⁴⁸ BRAZIL. Interministerial Working Group. PPCDAm fase 4 (2016-2020). Plano Operativo, p. 2. Available at: <<https://www.gov.br/mma/pt-br/assuntos/servicosambientais/control-de-desmatamento-e-incendios-florestais/pdf/PlanoOperativo20162020.pdf>>. Accessed on 10 October 2023.

²⁴⁹ BRAZIL. PPCDAm fase 4 - Plano Operativo, *op. cit.*, p. 4.

²⁵⁰ BRAZIL. PPCDAm fase 4 - Plano Operativo, *op. cit.*, p. 7.

²⁵¹ In 2017, a specialized plan focused on regeneration of degraded pastures and forest restoration was created through Decree No. 8,972/2017.

²⁵² BRAZIL. PPCDAm fase 4 - Plano Operativo, *op. cit.*, p. 2.

after the initial removal of vegetation with 2004 as temporal landmark. This tool allowed for interesting qualifications in PPCDAm's overall conception of the dynamics of deforestation. It was known that the rhythm of deforestation reduction had slowed down. It was also known that deforestation was mainly concentrated in the influence zones of highways, especially in the junction point of BR-230 and 364 (Rondônia and Amazonas) and the junction point of BR-163, BR-230, and BR-158 (Amazonas, Mato Grosso and Pará) – reinforcing a strong correlation between deforestation and infrastructure that, in the understanding of the policy's formulators, should not imply a complete, a priori exclusion of any type of infrastructure project from the Amazon region, as access to markets is also an essential condition to the commercialization of sociobiodiversity products.²⁵³

What was framed as novel knowledge acquired due to TerraClass was the information that approximately 20% of all the area deforested since 2004 was regenerating, with the identifiable presence of secondary vegetation on the soil surface. This suggested that circa 1/5 of all deforestation probably had timber extraction as a primary motivation, since after the removal of vegetation the areas showed signs of abandonment. TerraClass indicated that pasture continued to be the main type of land succeeding forest: 45% of the areas deforested between 2004 to 2014 were converted into pasturelands, whereas only 6% was at the time succeeded by agriculture.²⁵⁴

The x-ray of deforestation according to land category exposed that, in 2015, private areas (registered and non-registered) contributed to 36.1% of deforestation; rural settlements contributed to 27.4%; undesignated public lands to 25.1%; indigenous land to 1.2% and conservation units 10.1% (of which 0.8% referred to areas of integral protection and 9.3% to areas of sustainable use, where economic activities are permitted in accordance to specific legal criteria). Inside indigenous lands, the multi-dimensional impacts of mining were signaled as way more damaging than that of deforestation, a fact to which institutions involved in the territorial protection of indigenous lands should be attentive. The complexity of rural settlements was also nuanced. Some of the settlers already received degraded land; some sold or leased the land to large holders, who were the ones with capital to deforest and exploit the land; others indeed had opened new areas. The plan reinforced the need to prioritize initiatives for rural settlements, which should take into consideration that settlers, as a rule, are a

²⁵³ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 89-91.

²⁵⁴ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 67-72.

vulnerable group, even more subject to market pressures and the advantages of turning to cattle ranching as main economic activity.²⁵⁵

Besides announcing that the rhythm of deforestation reduction was slowing down, PPCDAm's fourth document brought another bad news: the average size of deforestation patches had increased. In 2015, polygons between 100 to 500 hectares contributed to 20% of deforestation. This could be read as a sign that the perception of risk of being targeted by command and control actions was lowering among environmental offenders, since large polygons have a higher probability of being the work of more capitalized agents.²⁵⁶

The policy's general guidelines continued to follow the decentralization motto adopted in phase III, with a stronger emphasis on the necessity of empowering the environmental secretariats of subnational states, which flagrantly lacked the structure to fulfill their responsibilities. Terra Legal and CAR, whose full implementation and expansion deeply depended on subnational states, were still lagging behind their goals. The list of priority municipalities was maintained and went through an improvement. In an attempt to stimulate proactivity from local governments, before including a municipality on the list, the federal government began to release previously the criteria for enlistment, giving chance to the municipality to adapt and prevent its inclusion.²⁵⁷ Initiatives from the private sector in the form of sectorial agreements were widely praised in the document, with an emphasis on the Soy Moratorium, described as a model for the timber and meat sectors.²⁵⁸

3.4 The dismantling of PPCDAm's governance structure

Planned to be in force until the end of 2020, PPCDAm Phase IV was prematurely extinguished by Jair Bolsonaro in 2019, only a few months after he took over the presidency, through a sequence of three presidential decrees. As we saw in chapter 2, the first decree extinguished all collegiate bodies within federal public administration in which civil society took part.²⁵⁹ This meant the immediate discontinuation of PPCDAm's interministerial working group, among other bodies of environmental governance such as Conama and the Amazon Fund. In November 2019 Bolsonaro issued two other decrees expressly revoking the creation of PPCDAm's working group.²⁶⁰

²⁵⁵ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 72-89.

²⁵⁶ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 65-67.

²⁵⁷ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 87-89.

²⁵⁸ BRAZIL. PPCDAm fase 4, *op. cit.*, p. 26.

²⁵⁹ BRAZIL. Decree No. 9,759/2019.

²⁶⁰ BRAZIL. Decree No. 10,142/2019, challenged in the claim of unconstitutionality (ADPF) No. 760.

In an attempt to shield the government from national and international criticism aroused by the abrupt discontinuation of environmental policies, the same decree that specifically extinguished PPCDAm also created the Executive Committee for the Control of Illegal Logging and Recovery of Native Vegetation (whose acronym in Portuguese is Conaveg).²⁶¹ The acronym was retrieved from a collegiate body founded during the Temer government in 2017, a “spin-off” policy that focused on regeneration and recovery (as PPCDAm was primarily concerned with the *avoidance* of deforestation).²⁶² Nothing but the acronym – not even its entire name – was copied from the earlier policy, though.

Conaveg’s new committee was coordinated by the Ministry of the Environment and composed of seven ministries. Participation in the meetings was not restricted to the ministries’ second or third-level employees; its members could be appointed by the ministers regardless of decision-making power. Civil society participation was optional, at the discretion of the committee, and merely deliberative, without voting rights. Three thematic chambers comprised the rest of the governance structure. These chambers could not have more than five members and should be strictly temporary, not exceeding one year in duration.²⁶³

The report of Conaveg’s first meeting in April 2020 registers that its executive committee approved by unanimity the termination of PPCDAm and PPCerrado.²⁶⁴ Again in a botched attempt to block criticism of Bolsonaro’s stance toward environmental policies, in Conaveg’s second meeting two months later, a member of the committee suggested a rectification, unanimously accepted: instead of the term “termination” to describe the official attitude to PPCDAm and PPCerrado, it should state the term “conversion.”²⁶⁵

A document self-titled a plan under the rubric of Conaveg was published on the website of the Ministry of the Environment. Besides not being the subject of discussion with civil society in any type of workshop or meeting, the document lacked elements that could give it the slightest appearance of legitimacy as a plan to prevent and control deforestation. It had

²⁶¹ BRAZIL. Decree No. 10,142/2019.

²⁶² BRAZIL. Decree No. 8,972/2017.

²⁶³ BRAZIL. Decree No. 10,142/2019.

²⁶⁴ BRAZIL. Ministério do Meio Ambiente. Meeting minute of the Executive Committee for the Control of Illegal Logging and Recovery of Native Vegetation (Conaveg), dated 23 April 2020. Available at: <https://www.gov.br/mma/pt-br/assuntos/servicosambientais/control-de-desmatamento-e-incendios-florestais/comissao-executiva-para-control-do-desmatamento-ilegal-e-recuperacao-da-vegetacao-nativa-conaveg/AtaReuniaoConaveg23.04.2020_site.pdf>. Accessed on 10 October 2023.

²⁶⁵ BRAZIL. Ministério do Meio Ambiente. Meeting minute of the Executive Committee for the Control of Illegal Logging and Recovery of Native Vegetation (Conaveg), dated 23 June 2020. Available at: <https://www.gov.br/mma/pt-br/assuntos/servicosambientais/control-de-desmatamento-e-incendios-florestais/comissao-executiva-para-control-do-desmatamento-ilegal-e-recuperacao-da-vegetacao-nativa-conaveg/AtaReuniaoConaveg23.06.2020_site.pdf>. Accessed on 10 October 2023.

no targets, no timetables, no indicators, and no monitoring mechanisms. As Suely Araújo, a former president of Ibama and a representative of the NGO Climate Observatory, stated at the public hearing held in ADO 59 (the constitutional claim that challenged the extinction of the Amazon Fund):²⁶⁶

The Ministry of Environment, in a very unexplained way, simply uploading the document on the Ministry's website, in practice declared the extinction of PPCDAm and its substitution by the so-called National Plan for the Control of Illegal Logging and Recovery of Native Vegetation 2020/2023. This plan claims to apply to all biomes and not only to the issue of deforestation control, but also - in theory, at least in discourse - to the recovery of vegetation. Two versions of this document have already been released. The first one had 19 pages; the current one has 25 pages, including cover and references. It was simply made available on the Ministry's website. It has no targets, no timetables, no indicators, and no monitoring mechanisms. This plan is not a plan. This plan is part of the dismantling of environmental public policies promoted by the current government (Speech by Suely Araújo at the public hearing held in ADO 59).

In 2021, a 28-page operative plan complementary to the second version of the document was uploaded on the website of the Ministry of the Environment, in an attempt to dissimulate the incorporation of targets, execution schedules, indicators, and monitoring mechanisms. The only mention of any type of resource that could subsidize the execution of the plan was a confusing reference to a judicial decision issued by the Supreme Court in ADPF 558, in the scope of the Car Wash Operation. The ruling established that a part of the fines imposed on the Brazilian mixed-capital oil company Petrobras by the U.S. Department of Justice and the Securities and Exchange Commission should go to the Amazonian states and be used in deforestation prevention and control. The plan simply made a rushed reference to this decision, implying that responsibility belonged primarily to the states, and therefore the federal government was exempt from allocating any budget.²⁶⁷

Besides enthusiastically citing the principle of decentralized and shared environmental governance as a justification for the lack of action by the federal government, the plan also exalted a “positive business environment that opens space for entrepreneurship and innovation to thrive” as the most important transversal issue cutting across institutional efforts aimed at deforestation prevention and control.²⁶⁸ More than just empty rhetoric to dissimulate the unwillingness of the Bolsonaro government to fight deforestation, this appeal to innovation and entrepreneurship as a privileged path to conservation was one of the main lines of

²⁶⁶ BRAZIL. Federal Supreme Court. Transcriptions of the public hearing in the claim of unconstitutionality by omission (ADO) No. 59, p. 300-301.

²⁶⁷ BRAZIL. Ministério do Meio Ambiente. Plano Operativo Conaveg, 2021, p. 4. Available at: <<https://www.gov.br/mma/pt-br/assuntos/servicosambientais/control-de-desmatamento-e-incendios-florestais/PlanoOperativo20202023.pdf>>. Accessed on 10 October 2023.

²⁶⁸ BRAZIL. Ministério do Meio Ambiente. Plano Operativo Conaveg, 2021, *ibid.* p. 3.

argumentation used by his administration when called to give explanations about environmental policies in the public sphere.

The ultimate aim of this reasoning – to divert money from conservation projects to large farmers – was easily perceived and unmasked as an absurdity by civil society and the international community (Norway and Germany, the main donors of the Amazon Fund, blocked access to the donations right after the fund’s governance structure was extinct in 2019). Yet, the chain of arguments leading to its conclusion was not as flimsy as one might think at first. It incorporated in a distorted way mainstream propositions and common criticisms of environmental policies available in academic literature, in a fine example of how contemporary authoritarian governments selectively exploit differences of understanding in scientific texts to extract false conclusions. This practice has begun to be understood as a more sophisticated derivation of fake news and called *informational disorder* within the discussion about social media regulation in Brazil.²⁶⁹ We will resume this topic in chapter 7 when discussing the impact of the paralysis of the Amazon Fund on Ibama’s operational capacity.

What interests us now in this reconstruction of the events leading to the dismantling of PPCDAm is the fact that maximizing political utility and dismantling PPCDAm were not contradictory, but convergent goals in Bolsonaro’s anti-environmental agenda. His coalition was mainly composed of sectors of agribusiness, military, evangelicals, and business owners that supported a mix of conservative and liberal values and denied legitimacy to the very existence of environmental policies.²⁷⁰ He received substantial electoral support from ruralists, land grabbers, and illegal miners directly involved with the expansion of predatory economic activities over the Amazon. These actors systematically corralled the votes of employees and smallholders under their influence in the 2018 and 2022 general elections and were key providers of money and “troops” to the anti-democratic mass mobilizations that culminated in the 2023 attack to the public buildings of the three branches of power in Brasília. Moreover, the extinction of PPCDAm can be read as an emblematic example of dismantling through the “path of least resistance”,²⁷¹ as the losses of dismantling were more immediately concentrated in groups that, despite having a high level of social mobilization, were not institutional “veto-players,” such as indigenous peoples, family farmers, and traditional communities.

²⁶⁹ WESENDONCK, Tula; JACQUES, Luísa. Desordem informacional: uma análise sob o olhar das características do fenômeno e da responsabilidade civil no Brasil. *Pensar Revista de Ciências Jurídicas* 27(3), 2022, pp. 1-13.

²⁷⁰ CAPELARI, Mauro Guilherme Maidana et al. Large-scale environmental policy change: analysis of the Brazilian reality. *Brazilian Journal of Public Administration*, 54(6), pp. 1691-1710.

²⁷¹ BONOLI, Giuliano. Blame Avoidance and Credit Claiming Revisited. In: BONOLI, Giuliano; NATALI, Dvid. *The Politics of the New Welfare State*. Oxford: Oxford University Press, 2012, pp. 93-110.

CHAPTER 4. POLICY ACTIVITIES AND INSTRUMENTS

The last chapter gave an overview of the main changes in PPCDAm's governance structure and general guidelines. This chapter details the activities and instruments that were planned to be implemented within the policy's scope. As such, it has a more "descriptive" than "narrative" pace. Here we will be less concerned with macro policy watersheds, punts and evasions, while paying close attention to the specific measures and initiatives that the formulators of PPCDAm envisioned for and in each phase. This reconstruction aims to give color and materiality to the abstract notion of "sustainable development" that animated the implementation of PPCDAm at a broader level. What exactly did policymakers mean by "ethno-environmental mosaic"? What concrete examples of the much-discussed "sociobiodiversity supply chains" are there available? How did the state try to effectively assert its presence in the Amazonian territory? By taking a step down from policy goals and political commitments toward the very hands-on dimension of planned activities and instruments, we gain more accurate insight into what the PPCDAm was about.

Besides, understanding in detail what has already been conceived and attempted is a good antidote against an easy *terra nullius* discourse. Without knowledge of the dense reservoir of policy ideas stored in different tokens of institutional memory, scholars may feel tempted to conclude that nothing has been ever done and end up with superficial and irrelevant suggestions, like "to save the Amazon we must foster bioeconomy." Policymakers involved with PPCDAm have known for decades that the region's economic matrix needs a shift toward bioeconomy. Thinking further about how this new matrix could be brought into existence and shaped by existing or novel institutions, networks, actors and mechanisms in light of accumulated local experience is rather the starting point of scholarly work. The next pages organize a portion of the experience registered in PPCDAm's documents, following the thematic division adopted in the policy: land and territorial planning; monitoring and control; sustainable production activities; and economic and normative instruments.

4.1 Land and territorial planning

The activities executed under the thematic axis of land and territorial planning can be clustered into three main categories: macro-zoning; creation of new indigenous lands and conservation units and consolidation of public power over the existing ones; and land tenure regularization via the Terra Legal Program. Before we get to the concrete activities planned

under this axis in each phase of PPCDAm, it may be helpful to take a brief incursion into the specificities of the territorial legal regimes applicable to protected areas (conservation units and indigenous lands) and rural settlements.

4.1.1 Conservation units

When one reads or hears the words “conservation units,” the first image that may come to mind is the stereotype of Yellowstone: huge parks created in a top-down fashion by a central environmental bureaucracy in which human presence is almost entirely prohibited. At least this was the picture many colleagues I encountered in international academic events on rural development had of conservation units, an image that was almost always followed by a generalized criticism of conservationism and governmental action. As someone who grew up having the Brazilian National System of Conservation Units (acronym SNUC) and Marina Silva’s socioenvironmentalism as reference points of governmental action in territorial planning, the readiness with which my colleagues associated conservation units with the interests of vicarious ruling elites and a strict ban on local communities took me by surprise. Therefore, it may be worthy it to dedicate a few pages to clarify the specificities of the Brazilian framework on protected areas.

SNUC divides conservation units into two types: sustainable use and integral protection. In the first, occupation by resident communities and a range of economic activities are considered compatible with conservation. For this reason, some scholars prefer to call them “sustainable rural settlements,” emphasizing the human element in the territory.²⁷² In the second type, only indirect use of natural resources is a priori allowed (but even here there are exceptions, as we will see shortly). Conservation units of the sustainable use type are divided into seven categories: Areas of Environmental Protection, Areas of Relevant Ecological Interest, National Forest, Extractivist Reserve, Fauna Reserve, Sustainable Development Reserve, and Natural Patrimony Particular Reserve. Conservation units of the integral protection type, in their turn, are divided into five categories: Ecological Station, Biological Reserve, National Parks, Natural Monument, and Wildlife Refuge.²⁷³ Their main characteristics are summarized in the box below.

²⁷² TRECCANI, Girolamo *et al.* Dados fundiários e ambientais: divergências e conflitos. *Revista de Direito Econômico e Socioambiental* 11(1), 2020, pp. 237-271, p. 263.

²⁷³ BRAZIL. Law No. 9,985/2000, articles 7 to 21.

Box 1: Types of conservation units according to SNUC

Sustainable use

- 1) Area of Environmental Protection (APA): extensive area with human occupation, endowed with abiotic, biotic, aesthetic or cultural attributes that are especially important for life quality and well-being of human populations. Its objective is to protect biological diversity, order the occupation process and ensure the sustainable use of natural resources. It can be publicly or privately owned. Public visitation and scientific research are established by the unit's advisory council or private owner. Public units have councils composed of representatives from public bodies, civil society organizations and the resident population (Law No. 9,985/2000, article 15).
- 2) Area of Relevant Ecological Interest (ARIE): small area with little or no human occupation, with extraordinary natural characteristics or that shelters rare specimens of regional biota. Its objective is to maintain natural ecosystems of regional or local importance and to regulate the use of these areas. It can be publicly or privately owned (Law No. 9,985/2000, article 16).
- 3) National Forest (FLONA): area with forest cover of predominantly native species. Its objective is to promote multiple sustainable uses of forest resources and scientific research. It is publicly owned (prior private owners are expropriated upon indemnification). Traditional populations that inhabited National Forests when they were created are allowed to remain in the area. Research is permitted and encouraged, subject to prior authorization. The unit's advisory council is composed of representatives from public organs, civil society organizations, and representatives from traditional populations residing in the area (Law No. 9,985/2000, article 17).
- 4) Extractivist Reserve (RESEX): area used by traditional extractivist populations, whose subsistence is based on extractivism and, complementarily, on subsistence agriculture and raising of small animals. Its objective is to protect the livelihoods and culture of these populations and to ensure the sustainable use of natural resources. It is publicly owned, with use granted to traditional extractive populations (prior private owners are expropriated upon indemnification). Exploration of mineral resources and amateur or professional hunting is forbidden. Commercial exploitation of timber resources is only permitted on a sustainable basis and in specific situations. Public visitation is permitted as long as it is compatible with local interests. Scientific research is permitted and encouraged, subject to prior authorization. Its deliberative council is composed of representatives from public organs, civil society organizations and traditional populations residing in the area (Law No. 9,985/2000, article 18).

5) Sustainable Development Reserve (RDS): area that shelters traditional populations, whose existence is based on sustainable systems for the exploitation of natural resources, developed over generations and adapted to local ecological conditions, and that play a fundamental role in protecting nature and maintaining biological diversity. Its objective is to promote nature conservation and secure conditions and means necessary for reproduction and improvement of life quality of traditional populations, as well as to value, conserve and enhance the knowledge and techniques for environmental management developed by these populations. It is publicly owned, with use granted to traditional populations (prior private owners are expropriated upon indemnification). Public visitation is permitted as long as it is compatible with local interests. Scientific research aimed at nature conservation, better relations between resident populations and their environment, and environmental education is permitted and encouraged, subject to prior authorization. Its deliberative council is composed of representatives from public agencies, civil society organizations and traditional populations residing in the area. The unit's management plan defines areas of full protection and sustainable use, buffer zones, and ecological corridors. (Law No. 9,985/2000, article 20).

6) Fauna Reserve (RF): area with animal populations of native species, terrestrial or aquatic, resident or migratory. Its objective is to enable technical-scientific studies on the sustainable economic management of fauna resources. Publicly owned (prior private owners are expropriated upon indemnification). Public visitation may be allowed. Amateur or professional hunting is forbidden. (Law No. 9,985/2000, article 19).

7) Natural Patrimony Particular Reserve (RPPN): private area encumbered in perpetuity. It aims at conserving biological biodiversity. Scientific research and public visitation with tourist, recreational and educational objectives are the only activities allowed. (Law No. 9,985/2000, article 21).

Integral protection:

8) Ecological Station (ESEC): aimed at nature conservation and scientific research. Publicly owned (prior private owners are expropriated upon indemnification). Only visits with educational purposes are allowed. Interventions are only authorized to restore modified ecosystems, manage species to preserve biological diversity, collect components for scientific purposes, and conduct scientific research (in an area corresponding to a maximum of 3% of the unit's total extension and up to a limit of 1,500 hectares (Law No. 9,985/2000, article 9).

9) Biological Reserve (REBIO): aimed at biota conservation. Publicly owned (prior private owners are expropriated upon indemnification). Only visits with educational purposes are

allowed. Interventions are only authorized to restore modified ecosystems. Scientific research depends on prior authorization (Law No. 9,985/2000, article 10).

10) National Parks (PARNA): aimed at the conservation of ecosystems of great ecological relevant and scenic beauty. Publicly owned (prior private owners are expropriated upon indemnification). Public visitation and scientific research are subject to conditions established in the unit's management plan (Law No. 9,985/2000, article 11).

11) Natural Monuments (MONAT): aimed at the conservation of natural sites that are rare, singular, or of great scenic beauty. It may be constituted of private areas, as long as private use can be made compatible with the unit's purpose (if they cannot, private owners are expropriated upon indemnification). Public visitation is subject to conditions established in the unit's management plan (Law No. 9,985/2000, article 12).

12) Wildlife Refuge (RVS): aimed at protecting natural environments where conditions for the existence and reproduction of species or communities of the local flora and the resident or migratory fauna are assured (Law No. 9,985/2000, article 13).

Source: BRAZIL. Law No. 9,985/2000

The table below displays the number and area of federal conservation units created from 1937 (when the first conservation unit was established) to 2022. As Treccani et al. warn, these numbers are not completely accurate, as there are persistent discrepancies between the databases of different state and non-state organizations. For instance, while the NGO Instituto Socioambiental registers a total of 336 conservation units, the Ministry of the Environment identifies 414 and the ICMBio, 222. The research group *Clínica de Direitos Humanos da Amazônia* of the Federal University of Pará, based on information published on official gazettes, compiled 470.²⁷⁴ Despite such inconsistencies, the numbers help to give an overview of the proportion of units under stricter protection and areas in which resident communities have the right to live and produce.

²⁷⁴ TRECCANI et al., *op. cit.* p. 234-244.

Table 1: Number and area of Brazilian federal conservation units according to use type

Category	Type	Number of federal units	Total area (ha) of federal units	% area in relation to the total area of federal units	% area in relation to Brazil's total area
Areas of Environmental Protection (APA)	Sustainable use	37	84,791,692	51.02%	9.958%
Areas of Relevant Ecological Interest (ARIE)	Sustainable use	13	35,488	0.02%	0.004%
Extractivist Reserve (RESEX)	Sustainable use	66	13,473,160	8.10%	1.582%
National Forest (FLONA)	Sustainable use	67	17,186,559	10.34%	2.018%
Sustainable Development Reserve (RDS)	Sustainable use	2	102,912	0.06%	0.012%
Natural Patrimony Particular Reserve (RPPN)	Sustainable use	0	0	0%	0%
Fauna Reserve (RF)	Sustainable use	0	0	0%	0%
Total	Sustainable use	185	115,589,811	69.554%	13.57%
Ecological Station (ESEC)	Integral protection	32	7,483,266	4.503%	0.879%
Biological Reserve (REBIO)	Integral protection	31	4,339,346	2.611%	0.510%
National Parks (PARNA)	Integral protection	74	26,788,073	16.119%	3.146%
Natural Monuments (MONAT)	Integral protection	5	11,686,588	7.032%	1.372%
Wildlife Refuge (RVS)	Integral protection	9	298,941	0.180%	0.035%
Total	Integral protection	151	50,596,214	30.446%	5.942%
Total	Sustainable use + Integral protection	336	166,186,025	100%	19.516%

Source: INSTITUTO SOCIOAMBIENTAL. Painel de Dados das Unidades de Conservação no Brasil <<https://uc.socioambiental.org/pt-br/paineldedados#categorias>> Accessed on 13 December 2022.

As the table shows, conservation units in which human presence is allowed comprise nearly 70% of all areas designated as this territorial regime, while conservation units in which

human presence is a priori forbidden occupy 30%. In the documents registering the planning of PPCDAm there is the understanding that conservation units of sustainable use should be given priority, as the fight against deforestation cannot be thought of separately from the need to secure livelihoods for traditional communities and family farmers. That notwithstanding, cases of traditional communities displaced to make room for conservation units of the integral protection type in the Amazon region exist, often resulting in attempts of conciliation led by the Ministério Público to meet conservation interests and guarantee traditional land rights.

In 2012, a survey by ICMBio revealed that 82 conservation units overlapped with indigenous, quilombola, or other traditional territories in all national biomes. Another report by the Ministry of the Environment in 2013 noticed that, from this amount, 39 were conservation units of integral protection, which affected around 5,000 families. In cases of overlapping between conservation units and traditional territories, the Ministério Público envisages four possible institutional solutions: (i) disaffection (changing or downsizing the unit's boundaries); (ii) recategorization (transforming a unit of integral protection into a unit of sustainable use); (iii) double allocation (establishing a shared management plan preceded by free, prior and informed consultation with indigenous peoples, quilombolas and other traditional communities residing in the respective conservation unit); and (iv) population removal (only as an exceptional measure and if preceded by free, prior and informed consultation with the affected groups, in cases where there is insurmountable incompatibility between the permanence of the community and the integral protection of the unit). The solution favored by Ministério Público in its interactions with the communities and state agencies such as Funai, Ibama, ICMBio and Incra is double allocation. The main bottlenecks delaying conciliatory procedures were not resistance from environmental agencies in recognizing the rights of traditional communities but were rather attributed to more operational issues: slow response time from the institutions involved, absence of community leaders in the debates before the conciliation chambers; and lack of reliable data on long-term biodiversity risks.²⁷⁵

²⁷⁵ BRAZIL. Ministério Público Federal. Territórios de Povos e Comunidades Tradicionais e as Unidades de Conservação de Proteção Integral: Alternativas para o Asseguramento de Direitos Socioambientais. Available at: <<https://www.mpf.mp.br/atuacao-tematica/ccr6/documentos-e-publicacoes/manual-de-atuacao/docs/manual-de-atuacao-territorios-de-povos-e-comunidades-tradicionais-e-as-unidades-de-conservacao-de-protecao-integral>>. Accessed on 14 February 2023.

Table 2: Number and area of conservation units created per government

Government	Number of UCs	Total area of UCs (ha)
Total	339	166,186,025
Jair Bolsonaro (2019-2022)	0	0
Michel Temer (2016-2018)	3	*
Dilma Rousseff (2011-2016)	3	42,673.74
Luis Inácio Lula da Silva (2003-2010)	77	26,828,924.53
Fernando Henrique Cardoso (1995-2002)	81	20,790,029.14
Itamar Franco (1992-1995)	1	14,640
Fernando Collor (1990-1992)	10	452,000.05
José Sarney (1985-1990)	59	14,469,623.67
Tancredo Neves (1985)	3	382,633.82
João Figueiredo (1979-1985)	51	11,458,917.45
Ernesto Geisel (1974-1979)	0	0
Emílio Médici (1969-1974)	5	1,940,869.64
Costa e Silva (1967-1969)	10	19,681.97
Castelo Branco (1964-1967)	0	0
João Goulart (1961-1964)	0	0
Jânio Quadros (1961-1961)	4	91,325.04
Juscelino Kubitschek (1956-1961)	5	772,367.55
Gaspar Dutra (1946-1951)	1	38,919.47
Getúlio Vargas (1937-1945) (1951-1954)	3	217,800.52

Sources: BRAGANÇA, Daniele. Qual presidente mais criou Unidades de Conservação (O Eco, 2 October 2014). Available at: <<https://oeco.org.br/noticias/28692-o-eco-mostra-qual-foi-o-presidente-que-criou-mais-ucs/>>. Accessed on 10 October 2023. * I did not find reliable data on the total area put under protection by Temer. He reduced the area of some conservation units while creating others, making it difficult to estimate whether there was a general increase.

As the table shows, the creation of conservation units did not start with PPCDAm but can be traced back to the autocratic phase of Getúlio Vargas' government in 1937. In absolute numbers, the president who created most conservation units was Fernando Henrique Cardoso. During the Lula administration, a more extensive area in hectares was put under protection. There is, moreover, a qualitative difference between the conservation units created before PPCDAm – notably during Cardoso's administration, at a time when international NGOs intensified conservationist campaigns in the Amazon – and those created from 2004 onward in

the scope of PPCDAm. As one interviewee who coordinated the PPG7 and worked in the Ministry of the Environment put it, the units created by Cardoso (such as the Jaú National Park) had the primary purpose of attending a demand by WWF and were located “far away” from the agribusiness frontier, in less conflictual zones. They existed only “on paper:” in the first 10 years after their creation, practically no environmental agent had set foot in the units. Conversely, the units that began to be established during PPCDAm were located in major conflict zones – the most emblematic example being the Mosaic of Terra do Meio alongside BR 163, – and the motivation for their creation was precisely to halt the frontier’s expansion and restrain deforestation.

At one point Fernando Henrique promised the WWF, as president, that by the end of his government 10% of the Amazon would be under protection. Then he created, for example, what was then the biggest conservation unit in Brazil, which is the Jaú National Park, on the west side of the Rio Negro, in the Amazon, and some other conservation units. He created conservation units far away, where it doesn't cost anything to create a conservation unit, where nobody is resisting, in lands that nobody has never even been. [...] I was also there and was responsible for assessing the status of the conservation units that already existed in the Amazon at that time. This was in 1999 or 2000. I was faced with two very large conservation units that still exist. [...] These conservation units belonged to Fernando Henrique's block, dedicated to the WWF. Nobody from Ibama had ever been to this place. You see, this was created many years before the time I was researching and in these, I don't know, ten years, nobody from Ibama had ever been in this conservation unit. It existed only on paper. [...] These were conservation units created to keep the levels of protection of the Brazilian Amazon on paper. Fernando Henrique never had the courage to create a conservation unit in conflict zones [*na boca do leão*]. The conservation units of Lula's period, most of them were created in conflict zones, they were created to prevent the expansion of the frontier and contain deforestation. (Interview with a former employee of the Ministry of the Environment).

4.1.2 Indigenous lands

Indigenous lands are divided in the Brazilian legal framework into three types: traditionally occupied lands, reserved areas, and areas of indigenous dominion. The latter corresponds to areas acquired by indigenous or communities by purchase contracts. The other two categories correspond to antagonistic conceptions of Indianity adopted by the Brazilian political-legal order in different historical moments. As asserted by the indigenous leader, anthropologist, and legal scholar Eloy Amado, reserved areas began to be created in the early 20th century. They were part of an assimilationist, integrationist policy that sought the “incorporation” of indigenous peoples into the “national communion,”²⁷⁶ an ethnocidal project grounded in the conviction that indigenous communities were an archaic and transitory stage

²⁷⁶ AMADO, Luiz Henrique Eloy. *Vukápanavo, o Despertar do Povo Terena para os seus Direitos: Movimento Indígena e Confronto Político* (Doctoral Dissertation) – Federal University of Rio de Janeiro, 2019, p. 111.

of sociopolitical and cultural organization, one that would be progressively dissolved in the Brazilian society in an evolutionary process of miscegenation.²⁷⁷

Reserved areas were small plots acquired by the Union at its discretion to which indigenous peoples were forcedly displaced and confined, with the dual aim of liberating lands for landowners and subjecting indigenous peoples to a gradual process of physical and cultural extermination. Reserved areas were administered by the Indigenous Protection Service (Portuguese acronym: SPI), an agency created in 1910 and extinguished in 1967 – when it was substituted by the National Indigenous Foundation (Funai), which still exists today. The atrocities committed against the indigenous peoples living under the tutelary power of SPI inspectors began to be revealed by historiographic research after the end of the military dictatorship in 1981.²⁷⁸ There are recordings of sexual crimes, forced labor, torture, and massacres of entire communities. Reserved areas at that time were thus conceived as more or less temporary colonies, as the state nurtured the expectation that in a couple of generations there would be no more indigenous peoples left.²⁷⁹ What happened, nevertheless, was that even after the discontinuation of SPI and the abandonment of a tutelary view toward Indianity in the wake of the country's redemocratization, the already established reserved areas were never revoked, but coexist today with the two other modalities of indigenous lands.

The most important type of indigenous lands are traditionally occupied territories. Arguably, the democratic Constitution of 1988 represented an interruption in the secular chain of assimilationist approaches. By recognizing indigenous peoples' social organization, costumes, languages, beliefs, traditions, and original rights to exclusive usufruct over traditionally occupied lands,²⁸⁰ the new constitutional text inaugurated the promise of a pluriethnic state. It gave birth to a new form to deal with plurality and alterity, opening up the possibility for the conviviality of otherness, instead of its annihilation. With the enactment of the new constitution, the state delineated a space of action within which indigenous peoples can autonomously exercise their right to difference: traditional lands, over which their original occupants are entitled to exclusive use. Self-determination, thus, began to be understood in the strong sense of both *primacy* and *exclusivity* over land use.

²⁷⁷ DE CASTRO, Eduardo Viveiros. Sobre a noção de etnocídio, com especial atenção ao caso brasileiro 2016. <https://www.academia.edu/25782893/Sobre_a_no%C3%A7%C3%A3o_de_etnoc%C3%ADdio_com_especial_aten%C3%A7%C3%A3o_ao_caso_brasileiro> Accessed on 13 August 2022.

²⁷⁸ AMADO, *op cit.*, p. 84, 100-107.

²⁷⁹ AMADO, *op cit.* p. 192-194.

²⁸⁰ BRAZIL. Federal Constitution of 1988, article 231.

The Constitution established a five-year deadline for the Brazilian state to conclude the demarcation of all traditionally occupied indigenous lands. In a summarized formulation, the demarcation process is composed of seven steps: (1) identification, in which an anthropologist nominated by Funai prepares an anthropological study that subsidizes a report by a working group on ethno-historical, sociological, legal, cartographic, and environmental characterizations of the land to be demarcated; (2) approval of the report by Funai's president; (3) 90-day period for interested parties to contest the report; (4) declaration, in which the Minister of Justice declares the boundaries of the land and determines its physical demarcation; (5) demarcation, in which Funai sets physical marks on the limits of the land and Incra resettles non-indigenous occupants; (6) homologation of the demarcation by presidential decree; and (7) registry of the homologated land in land registry offices.²⁸¹

Importantly, demarcation must be followed by the deintrusion of the territory, that is, the eviction of all non-indigenous occupants. Deintrusion operations are costly, long, and highly contested. Occupants who have been permanently living and farming on the site for years must be first notified to leave voluntarily within a certain timeframe, taking movable assets (cattle, vehicles, etc.) with them. Smallholders are given priority in resettlement programs, and, in some cases, psychologists and social workers must be assigned to reduce the impact of forced displacement on more vulnerable families. Immovable goods (constructions, swidden, etc.) must be inventoried as bona fide improvements, indemnified and then undone. The undoing of any traces of non-indigenous occupation includes, for instance, the demolition of buildings, interdiction of roads, implosion of dams, and tearing down of fences. When the signs of occupation are recent, visibly oriented to short-term extractivism and limited to precarious settlements such as clandestine mining camps, removal of non-indigenous traces can be more immediate. Tents are blown up, landing strips are dynamited and mining equipment (loaders, dredges, etc.) is destroyed. Individuals found working in conditions analogous to slavery are taken to labor authorities; those working under conditions of voluntariness are criminally indicted – the ambiguities in distinguishing one from the other being a challenge in itself.

Even when intruders are successfully removed and peaceful indigenous repossession is to some extent made possible, the work to ensure territorial integrity is far from finished. Often the indigenous communities encounter the lands in a very degraded state due to mining,

²⁸¹ BRAZIL. Decree No. 1,775/1996; INSTITUTO SOCIOAMBIENTAL. Situação jurídica das terras indígenas no Brasil hoje. Available at: <https://pib.socioambiental.org/pt/Situa%C3%A7%C3%A3o_jur%C3%ADdica_das_TIs_no_Brasil_hoj> Accessed on 12 December 2022.

grazing and monoculture. After repossession, a participative territorial and environmental management plan establishing measures to recuperate degraded areas, among other practices oriented to ethno-development such as ethno-mapping and ethno-zoning, needs to be articulated by indigenous councils together with non-governmental organizations and Funai.

After the constitution was promulgated, Funai sought external support to conclude the demarcation of all indigenous lands within the deadline stipulated. In that context, the Integrated Project to Protect Indigenous Lands and Populations in the Legal Amazon (PPTAL) was created, with resources from the World Bank and the German bank Kreditanstalt für Wiederaufbau (KfW), under the supervision of GIZ. In two and a half years, 30 indigenous lands were identified and 30 others were demarcated in the Amazon.²⁸² Despite these joint efforts, the constitutional goal of demarcating all indigenous lands in 5 years was not achieved. According to the Indigenous Missionary Council (Cimi), there are currently 1,306 indigenous lands in Brazil at different stages in the demarcation process:²⁸³

Table 3: Legal status of indigenous lands (TIs) in Brazil

Legal status	Number of TIs
Waiting for state measures: lands claimed by indigenous peoples that have not yet been object of administrative procedures by Funai	537
To be identified: lands included in Funai's planning for future identification, with technical groups already constituted	169
Identified: lands recognized as traditional territory by a Funai technical group, waiting for the declaratory ordinance by the Minister of Justice	55
Declared: lands declared by the Minister of Justice, waiting for presidential homologation	61
Homologated: lands homologated by the President of the Republic, waiting for registry in notary offices	19
Registered: demarcation concluded and registered in notary offices	400
With use restriction: lands where entry and permanence of third parties are restricted by a Funai ordinance	06
Reserved: lands designated as "reserved areas" in the SPI period	38

²⁸² AMADO, *op. cit.* p. 197-198.

²⁸³ AMADO, *op. cit.* p. 199; INDIGENOUS MISSIONARY COUNCIL. Relatório Violência contra os Povos Indígenas no Brasil: dados de 2018. Available at: <<https://cimi.org.br/wp-content/uploads/2019/09/relatorio-violencia-contra-os-povos-indigenas-brasil-2018.pdf>>. Accessed on 10 October 2023.

Of indigenous dominion: acquired by purchase contracts by indigenous individuals or communities	21
Total	1,306

Sources: AMADO *op. cit.* p. 199; INDIGENOUS MISSIONARY COUNCIL, *op. cit.* p. 36.

The table below indicates how many indigenous lands were demarcated by each president since redemocratization in 1985.

Table 4: Indigenous lands (TIs) homologated per government

Government	Number of TIs homologated	Total area of homologated TIs (ha)
Total	430	147,449,808
Jair Bolsonaro (2019-2022)	0	0
Michel Temer (2016-2018)	0	0
Dilma Rousseff (2011-2016)	21	-
Luis Inácio Lula da Silva (2003-2010)	79	-
Fernando Henrique Cardoso (1995-2002)	145	-
Itamar Franco (1992-1995)	18	-
Fernando Collor (1990-1992)	112	-
José Sarney (1985-1990)	67	-

Sources: AMADO, *op. cit.* p. 197; INDIGENOUS MISSIONARY COUNCIL *op. cit.* p. 37.

4.1.3 Rural settlements

Brazil notoriously inherited an extremely concentrated land structure from the colonial period. From 1530 until close to Brazil's independence from Portugal in 1822, land acquisition was basically regulated by the *sesmarias* regime, whereby the Portuguese Crown kept dominion over the land, granting possession and use to private individuals based on social estate criteria.²⁸⁴ Recipients of *sesmarias* should keep the land under cultivation, using in the first moment slave labor of indigenous peoples, and from the 1550s onwards relying primarily on the work of enslaved African peoples. In 1822 the *sesmarias* regime was suspended; new legislation came only in 1850 – in the interval, land was mainly obtained by squatting. The Land Act of 1850, enacted two weeks after the prohibition of slave trade, forbade the practice

²⁸⁴ MARTINS, José de Souza. *O Cativo da Terra*. 9th ed. São Paulo: Contexto, 2010, p. 45.

of obtaining land through squatting and limited acquisition to purchase.²⁸⁵ In theory, the Land Act allowed squatters to be granted property titles once they registered their ownership in the Parish Register, which would become “the source of legitimacy of the dominial chain in property law.”²⁸⁶ In practice, however, whereas nearly all old sesmarias were revalidated,²⁸⁷ small squatters – many of indigenous descent – were often taken by larger landowners to the parish to formalize the title as if the land belonged not to them but to the farmer, unknowingly renouncing to their property rights. There are recordings of how a bustling “industry of forged property titles” emerged around the Parish Register by means of bribing notaries and clerks.²⁸⁸

The motivation for the enactment of the Land Act, as José de Souza Martins contended, was less to secure a class monopoly over the land and more to guarantee compulsory supply of labor force to large coffee plantations. Slave trade had come to an official end in 1850²⁸⁹ and the market price of enslaved people was consequently rising. Landowners sensed it was not possible to delay the abolition of slavery much longer, and measures to import white European colonists as workforce to coffee plantations began to be taken. The problem of how to ensure the continuity of labor supply in the absence of slavery was thus solved with a legal mechanism designed to make land democratization impossible: to deny recognition to squatting and restrict access to purchase. With the Land Act, Brazil’s ruling class “invented a simple formula for coercing the labor of free men: if the land was free, labor had to be slave; if labor was free, the land had to be slave.”²⁹⁰ This logic continued to shape the country’s land structure during the republican period, which began in 1889.

The next significant legal milestone in the history of Brazil’s land structure was the Land Act of 1964, enacted by the military regime a few months after the coup.²⁹¹ The new law had a dual purpose. On the one hand, it sought to appropriate the agenda of agrarian reform and

²⁸⁵ ASSUNÇÃO, Juliano. Land reform and landholdings in Brazil. In: DAVIES, James (ed). *Personal Wealth from a Global Perspective*. Oxford: Oxford University Press, 2008.

²⁸⁶ MARTINS, *op. cit.* p. 231.

²⁸⁷ ASSUNÇÃO, *op. cit.* p. 2.

²⁸⁸ MARTINS, *op. cit.* p. 232, 45.

²⁸⁹ Slave smuggling continued clandestinely with the consent and participation of Brazilian state authorities and the financing and support of U.S. and European investors for at least a decade more after its formal end in 1850. Brazil was the last American country to abolish slavery in 1888. Cf. PARRON, Tamis Peixoto. A política da escravidão na era da liberdade: Estados Unidos, Brasil e Cuba, 1787-1846 (Doctoral Dissertation) – University of São Paulo, 2015; PARRON, Tamis Peixoto. A política da escravidão no Império do Brasil, 1826-1856 (Master Dissertation) – University of São Paulo, 2009.

²⁹⁰ MARTINS, *op. cit.* preface, p. 1.

²⁹¹ The military coup itself can be read as a “preventive counter-revolution to the national-populist government of João Goulart, which, despite all its contradictions and impasses, opened space to popular participation.” The immediate causes for the coup “reflected the fear of the potential strength of the popular movement through base reforms; fear that the questioning of ownership led to the questioning of property in general; fear of the implantation of a ‘syndicalist republic’ and ‘communism.’” BRUNO, Regina. *Senhores da Terra, Senhores da Guerra: a nova face política das elites agroindustriais no Brasil*. São Paulo: Forense Universitária, 1997, p. 96.

other social movements' demands for base reforms, disarticulating the peasant leagues and the emerging activism of Catholic priests, which experienced increasing mobilization during the 1960s.²⁹² On the other hand, the military government saw the country's low levels of land productivity as a hindrance to development and used the Land Act as an opportunity to link agrarian reform to agricultural modernization.²⁹³ Accordingly, the law created one agency to execute "the distribution of land according to the principles of social justice and productivity," the Brazilian Institute for Agrarian Reform (IBRA), and an agency to promote rural development in the sectors of colonization, rural extension, and cooperativism," the National Institute for Agricultural Development (INDA). Both merged in 1971 into Incra, which still exists as Brazil's main federal land agency to this day.

As argued by Regina Bruno, during the military regime the implementation of a distributive reform was never concretized due (i) to the reaction of anti-reformist landowners, "who disfigured and disabled the application of the Land Act as an instrument of agrarian reform; [ii] to the lack of a political support base; and [iii] to the proposal's maladjustment to the new needs of capitalism in Brazil," often framed under the notion of "conservative modernization."²⁹⁴ Instead of distributing property, the military regime focused on giving subsidized rural credit to large landholders, especially to soybean plantations. The strategy "generated large surpluses for export and, simultaneously, resulted in the absorption of small farmers by medium and large-sized properties," intensifying land concentration.²⁹⁵

The Land Act of 1964 survived the regime transition to democracy, having suffered many amendments since then. The first National Agrarian Reform Plan (PNRA I) was launched in 1985, the year redemocratization began. It established the goal of settling 1.4 million families in 5 years. Despite the importance represented by this first official proposal to democratize land ownership, the plan's goals remained largely unachieved. Violence against peasant leaderships and mobilization of landless social movements intensified during the 1990s, reaching a peak in 1995 with the massacres of Corumbiara, Rondônia, and Eldorado dos Carajás, Pará, in which respectively 12 and 21 rural workers were murdered.²⁹⁶

In response to the increasing pressure, the government of Fernando Henrique Cardoso accelerated the establishment of rural settlements and new incentives for family agriculture. It

²⁹² ASSUNÇÃO, *op. cit.* p. 6.

²⁹³ BRUNO, *op. cit.* p. 106.

²⁹⁴ BRUNO, *op. cit.* p. 96.

²⁹⁵ ASSUNÇÃO, *op. cit.* p. 6.

²⁹⁶ CATTELAN, Renata *et al.* A reforma agrária nos ciclos políticos do Brasil (1995-2019). *NERA* 23(55), 2020, pp. 138-164.

was in this period that PRONAF was launched and the Ministry of Agrarian Development was recreated. In Cardoso's second term, other policies such as Cédula da Terra, Banco da Terra, and Novo Mundo Rural were introduced. They had a more market-oriented character, aiming to foster specialization and competitiveness of family farms. Yet, the measure for which Cardoso is most remembered with regard to agrarian policy is the enactment of Provisional Measure No. 2,027-39/2000. The executive order "prohibited inspection of rural properties that were the object of trespass or invasion motivated by an agrarian or land conflict of collective character, for a period of two years after the property was vacated."²⁹⁷ In other words, it forbade Incra from settling beneficiaries in areas that had been previously occupied by social movements, in an attempt to demobilize peasant leagues. The strategy worked: from 1999 to 2001 the number of occupations by landless movements dropped by approximately 68%.²⁹⁸

The second National Agrarian Reform Plan (PNRA II) was launched in 2003, in the first year of Lula's term. One of its goals was to settle another 400,000 families, regularize the land situation of other 500,000 families and supply 130,000 families with credit in four years. By the end of the plan in 2007, 163,000 beneficiaries had been allocated to new settlements and approximately 300,000 others had their land situation regularized. The rhythm of expropriations and creation of settlements decreased during his second term, but in aggregate numbers, the Lula government still was the one that settled the most families and designated the largest area to settlement projects, with Cardoso in second place. Lula's approach to the land issue was notoriously characterized by the intention to conciliate policies for family farming with the interests of agribusiness. This conciliatory stance was materialized in two principles that guided agrarian reform during his first and second governments: not to expropriate lands occupied by agribusiness and to incentivize settlers to integrate themselves into agribusiness.²⁹⁹

Dilma Rousseff's administration settled nearly a fifth of the families that had been settled during the Lula government, a decrease that can be simultaneously attributed to a drop in demand for settlements, a loss of importance of the matter on the federal agenda, and the political turmoil the country was dragged into from 2013 onward. If Rousseff's agrarian reform indicators were criticized by scholars and activists as insufficient after her impeachment efforts in this direction became practically null. Modifications introduced by Michel Temer in titling rules through Law No. 13.465/2017 emptied the purpose of a land reform associated with family

²⁹⁷ MAUÉS, Antonio. *Constituição e desigualdade: direito de propriedade e reforma agrária no Brasil. Lua Nova* v. 115, 2022, pp. 191-224, p. 213.

²⁹⁸ CATTELAN *et al. op. cit.* p. 149.

²⁹⁹ CATTELAN *et al. op. cit.* p. 151-153.

agriculture and privileged a mode of land appropriation based on extensive monoculture. He extinguished the Ministry of Agrarian Development and halted the demarcation of indigenous lands and traditional territories. Under the government of Jair Bolsonaro, the situation got even worse. No expropriation measure was taken, no new settlement was created, and Incra's online database stopped being updated.³⁰⁰

Table 5: Land reform indicators per government

Government	Number of families settled	Number of settlements created	Area of settlements created (million/ha)	Number of expropriation decrees signed
Jair Bolsonaro (2019-2022)	9,228	0	0,003	0
Michel Temer (2016-2018)	10,100	110	0,66	5
Dilma Rousseff (2011-2016)	133,700	612	3,2	237
Luis Inácio Lula da Silva (2003-2010)	614,100	3,544	48,3	1,988
Fernando Henrique Cardoso (1995-2002)	540,700	3,181	21,05	3,530
Itamar Franco (1992-1995)	-	-	1,36	245
Fernando Collor (1990-1992)	-	-	0,015	7
José Sarney (1985-1990)	-	-	4,8	701
João Figueiredo (1979-1985)	-	-	2,84	131

Sources: CATTELAN *et al. op. cit.*; ASSUNÇÃO, *op. cit.* p. 9; GHIRALDELI, Gabriela. Fatos Primeiro: Bolsonaro acerta sobre números de titulação de terras, mas omite dados de reforma agrária (CNN Brasil 21 July 2022). Available at: <<https://www.cnnbrasil.com.br/politica/fatos-primeiro-bolsonaro-acerta-sobre-numeros-de-titulacao-de-terras-mas-omite-dados-de-reforma-agraria/>> Accessed on 17 February 2023.

³⁰⁰ CATTELAN *et al. op. cit.* p. 154-159.

Rural settlements can be categorized into two main types: those created by Inbra and those created by other state agencies but recognized by Inbra for purposes of access to agrarian reform policies. In theory, the creation of rural settlements must obey the following steps:³⁰¹ (1) Inbra expropriates a plot of land that failed to achieve the productivity standards legally provided for, paying to the dispossessed owner a “previous and fair indemnification in agrarian debt bonds.” (2) Families enrolled in Inbra’s cadaster are installed in the land plots. (3) Inbra and local concessionaries initiate infrastructure works such as demarcation, provision of electricity, construction of houses, paving of roads, etc. (4) Families receive initial credit through the National Program for the Strengthening of Family Farming (PRONAF). (5) Families can sell their production to the government through the National School Feeding Program (PNAE) and the Food Acquisition Program (PAA). (6) After 10 years, if all conditionalities are met, settled families are granted full ownership over the land, becoming entitled to sell or lease it at their discretion.³⁰² The main characteristics of the modalities of rural settlement created or recognized by Inbra are indicated in the box below.

Box 2: Types of rural settlements according to Inbra

Projects created by Inbra

- 1) Federal Settlement Project (PA): “classical” modality of rural settlement.
- 2) Agroextractivist Settlement Project (PAE): its beneficiaries usually originate from extractivist communities and practice environmentally differentiated activities.
- 3) Sustainable Development Project (PDS): its beneficiaries usually originate from traditional populations and practice environmentally differentiated activities. Land ownership is collective.
- 4) Forestry Settlement Project (PAF): focused on management of forest resources in areas with aptitude for sustainable community-based or family forest production. Areas are managed by an association or cooperative of settled forest producers.

³⁰¹ An ethnographic description of how Inbra servants and the Landless Workers Movement (MST) developed a “partnership relationship” is masterfully done by DE CASTRO, Camila Penna. *Gênese da relação de parceria entre Inbra e movimentos sociais como modelo para Implementação de políticas de reforma agrária. Lua Nova* 105, 2018, pp. 115-148. In this partnership, “social movements have the role of organizing and presenting the demand (of beneficiaries and land), and the state has the role of carrying out the administrative processes of expropriation or acquisition of properties, creating settlement projects and registering the beneficiaries in the National Agrarian Reform Program (PNRA), besides authorizing the release of credit for agricultural development.”

³⁰² BRAZIL. Inbra. Assentamentos. Available at: <<https://www.gov.br/inbra/pt-br/assuntos/reforma-agraria/assentamentos>> Accessed on 14 February 2023.

5) Decentralized Sustainable Settlement Project (PDAS): destined to family agriculture in the outskirts of urban centers. Areas cannot be larger than 2 fiscal modules nor smaller than one fiscal module and must be used to produce fruit and vegetables for urban centers.

Projects recognized by Inca

6) State Settlement Project (PE) and Municipal Settlement Project (PAM): settlements implemented by the states and municipalities with Inca's support.

7) Extractivist Reserve (RESEX), Sustainable Development Reserve (RDS), and National Forest (FLONA): created by federal or states environmental agencies and recognized by Inca to give the resident populations access to the incentives provided for in the National Program for Agrarian Reform.

8) Quilombola Territory (TRQ): jointly implemented by Inca and the Palmares Foundation. Its beneficiaries are descendants of quilombo settlers (communities established by escaped enslaved people during the time of slavery).

9) Fundo de Pasto Settlement (PFP): created by the states and municipalities with Inca's support. Its beneficiaries are members of *fundo de pasto* communities, which are characterized by kinship ties and collective living in unfenced areas.

10) Dam Resettlement (PRB): must be implemented by undertakings responsible for dam constructions. "Beneficiaries" are communities affected by hydroelectric or mining projects.

Sources: BRAZIL. Inca, *op. cit.*; LE TOURNEAU, François-Michel; BURSZTYN, Marcel. Assentamentos rurais na Amazônia: contradições entre a política agrária e a política ambiental. *Ambiente e Sociedade* XIII(1), 2010, pp. 11-130.

Now that we have done an overview of the historical processes and current legal framework underpinning different land modalities in Brazil, let us turn to the multiple activities concerning territorial planning foreseen by PPCDAM's first document of reference. Priority number one to policymakers was the ecologic-economic zoning of the arc of deforestation and the municipalities located within the influence zone of the highway BR-163, in an integrated way with local agendas and municipal plans. Another important measure was the designation of public lands located in the arc of deforestation and the municipalities located within the influence zone of BR-163. This meant implementing CAR, titling small properties and family farmers, and reviewing previous cases of alienation and concession of public lands with signs of irregularities. PPCDAM's formulators also considered relevant drafting, and subsequently

sending to congressional deliberation, two legislative bills. The first bill would regulate article 20 of the Constitution, further detailing the rules on undesignated federal public lands. The second would transform deforestation in public lands in the Amazon into a specific crime.³⁰³

Moreover, PPCDAm Phase I provided for the demarcation of 7 indigenous lands situated in the arc of deforestation and the municipalities located within the influence zone of the highway BR-163, followed by immediate eviction of invaders. It also planned the creation of 23 conservation units of sustainable use (7 national forests; 2 areas of environmental protection; 3 sustainable development reserves; and 11 extractivist reserves) and 9 conservation units of integral protection (5 national parks; 1 ecological station and 3 biological reserves) in the arc of deforestation and other fronts of agricultural expansion. Besides, the plan foresaw the recovery of rural settlements through the provision of training and technical advisory to 10,000 families and an increase in credit to families settled within the arc of deforestation and the influence zone of highway BR-163. They tied the paving of roads and provision of electricity with the discussion and elaboration of environmental management plans with the families.³⁰⁴

As we saw, the first independent audit assessed the performance of land and territorial planning activities carried out in the policy's initial years as "middle." The two main bottlenecks limiting the efficacy of land and territorial planning activities in PPCDAm's first implementation phase were, according to the auditors, the low institutional capacity of Inbra to resettle evicted occupants of indigenous lands and conservation units in agrarian reform programs, as well as the low capacity of subnational land and environmental agencies.³⁰⁵

In terms of results, PPCDAm's second document of reference registered the creation of more than 25 million hectares of conservation units, mostly located in conflict zones; the homologation of more than 10 million hectares of indigenous lands; and the inhibition of more than 60,000 rural land titles with signs of irregularities as outcomes of the policy's first phase. The enactment of the National Strategic Plan for Protected Areas (PNAP) in 2006 by presidential decree was also framed as an achievement.³⁰⁶ It recognized indigenous peoples as providers of environmental services, protection, conservation, recuperation, and sustainable use of natural resources and instituted strategic guidelines for the conservation of the remainders of Brazilian biomes.

³⁰³ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 44-83.

³⁰⁴ BRAZIL. PPCDAm fase 1, *op. cit.*, p. 44-83.

³⁰⁵ ABDALA, Guilherme (org.). Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal (PPCDAm). Documento de Avaliação 2004-2007. Brasília: MMA, 2008; DE MELLO, *op. cit.* p. 28.

³⁰⁶ BRAZIL. Decree No. 5,758/2006.

PPCDAm's second document of reference brought new activities for the next phase. The already initiated macro-zoning of the Amazon should be completed. Also, federal support should be given to subnational states to complete their integrated ecologic-economic zoning. The plan set the goal to regularize 296,000 rural occupations up to 15 rural modules in the scope of the Terra Legal Program within 3 years. It also foresaw the creation of 26 new conservation units with a total of 6 million hectares (18 of them being of sustainable use and 8 of integral protection), together with the expansion of 3 existing conservation units of integral protection, adding another 3.5 million hectares to the mosaics. Another priority was the formalization of use concession contracts with traditional communities in 20 conservation units in the arc of deforestation and the municipalities in the influence zone of BR-163, alongside the demarcation and homologation of 14 indigenous lands that occupied 4 million hectares.³⁰⁷

The second independent audit assessed the performance of land and territorial planning activities as "middle." It issued specific recommendations for the next phase. According to the auditors, macro-zoning had favored continued success in controlling deforestation and should be completed. The federal government should make more effort to support local land use planning in priority municipalities, with emphasis on micro-regional arrangements such as inter-municipal consortia. Sector-specific ecological-economic zoning for the cattle, grain, and timber chains should also be carried out. The strategy to create protected areas and indigenous lands should be redefined. Creation of conservation units should focus on deforestation hotspots. Moreover, territorial protection of already created conservation units and indigenous lands should be strengthened, alongside the approval and implementation of specific management plans for each territory. Strategies for economic valuation of protected areas should be developed to provide economic alternatives for residents and land users. A shared land use database for the Amazon should be consolidated in an integrated registration system, accessible to all entities responsible for generating spatial planning information. Terra Legal should be integrated with CAR and environmental licensing of titled properties. The remaining public lands in regions covered by Terra Legal should be identified. Finally, land regularization of Inca settlements should be synchronized with environmental licensing.³⁰⁸

In terms of results, PPCDAm's third document mentioned the enactment of the macro-zoning of the Amazon region in 2010³⁰⁹ and the National Policy for the Territorial and

³⁰⁷ BRAZIL. PPCDAm fase 2, *op. cit.*, p. 70-82.

³⁰⁸ IPEA, GIZ, CEPAL, *op. cit.* p. 35-36.

³⁰⁹ BRAZIL. Decree No. 7,378/2010.

Environmental Management of Indigenous Lands (PNGATI) in 2012,³¹⁰ both by presidential decree, as important achievements conquered in the previous phase. In Phase III, despite the continued effort to create new conservation units, the focus shifted to the consolidation of the more than 25 million hectares of conservation units already created, as well as to the protection of the more than 10 million hectares of indigenous lands already homologated. The next activities targeted four priority areas: the influence zone of highway BR-163 in Pará and Amazonas; the Xingu Region in Pará; the region comprising the South of Amazonas and North of Rondônia; and the Marajó archipelago in Pará. The rationale behind this prioritization, which was also reflected in macro-zoning efforts, was anchored in the need to build a “protection belt” around the “forest heartland,” the densest area of ombrophilous vegetation that extends from Southern Amazonas to the coast of Amapá and part of Pará, stretching north and west to other Amazonian South American countries.³¹¹

Among the numerous activities planned to be implemented in the third phase, some stand out. Elaborating and implementing Plans for Territorial and Environmental Management of Indigenous Lands (PGTAs), urgently evicting invaders from protected areas, as well as deepening integration between federal and subnational land and environmental databases, were given preeminence. Measures to combat irregular practices by notaries, especially to foster digitalization and design mechanisms for civil control in cooperation with the National Council of Justice (CNJ), were also included. Another priority was to identify and designate the remaining undesignated federal public areas, a task whose responsibility felt primarily under the competence of the Secretariat of the Union's Patrimony (SPU), and to identify the remaining undesignated areas of subnational states. The to-do list also included the formalization of use concession contracts with traditional communities that reside in conservation units more recently created and further detailing the macro-zoning to include sectoral-specific zoning (e.g. mineral, forestry). Lastly, improving the maps of the Amazon's “cartographic vacuum” to a scale of 1:50.000 and streamlining the concession of public forests, whose legal framework had been approved in 2006, were equally foreseen in PPCDAm Phase III.³¹²

In terms of results, the policy's fourth document brought as main accomplishments of the previous phase the increase in extension of protected areas; the regularization of 15 million hectares (including urban and rural titles) under the Terra Legal Program; and the donation of

³¹⁰ BRAZIL. Decree No. 7,747/2012.

³¹¹ BRAZIL. PPCDAm fase 3, *op. cit.* p. 77-85. The other Amazonian South American counties are Bolivia, Colombia, Ecuador, Guyana, French Guyana, Peru, Suriname, and Venezuela.

³¹² BRAZIL. Law No. 11,284/2006.

BRL 78 million by the Amazon Fund to support the elaboration and implementation of Plans for Territorial and Environmental Management of Indigenous Lands (PGTAs). In 2015, there were a total of 105 conservation units in the Amazon (62 federal and 43 of the states), protecting 58.3 million hectares. By 2015, the Amazon Fund had already raised a total of BRL 1.2 billion, and its portfolio included 80 projects selected in open calls. 9 projects aimed at benefiting 40 indigenous lands; 14 projects supported the implementation of the CAR (of which 11 were contracted with subnational governments). The document also hinted at the goal of creating another 13.5 million hectares of conservation units.³¹³

When referring to Terra Legal, the document repeated the still unachieved goal of titling 150,000 occupants of undesignated federal public lands and reported that the program's technical chamber had already made consultations on 97% of all public undesignated lands (around 58.2 million hectares). 21% of them were destined to federal or state agencies that manifested interest in the area, 18% were still under study, and 58% were available for titling and agrarian reform. In addition, the document mentioned the strengthening of the program's fraud reporting channels: the list of titled landholders was published online and in case of irregularity any citizen (even anonymously) could file a complaint online.³¹⁴

As the plan's diagnosis signaled that in 2012 rural settlements were responsible for almost 30% of deforestation in the Amazon (especially those located in Mato Grosso near the highways BR-163, BR-230, BR-158 and BR-364), PPCDAm's fourth document reinforced the need to strengthen Incra's Green Settlements Program. The initiative sought to recover the environmental conditions of rural settlements, foster income generation and food security for families, implement the CAR in each family unit, and promote sustainable production.³¹⁵

The activities planned in the operative plan of Phase IV included designating 10 million hectares of federal public lands and titling another 26,000 families. They also provided for continuing the works of Terra Legal's technical chamber; incentivizing subnational states to give proper destination to their undesignated lands; expanding existing subnational conservation units; improving environmental and territorial management of existing conservation units; promoting the deintrusion of indigenous lands; supporting the implementation of management plans in 40 indigenous lands; reviewing the Amazon's macro-zoning; and encouraging the elaboration of ecologic-economic zoning by subnational states.³¹⁶

³¹³ BRAZIL. PPCDAm fase 4, *op. cit.* p. 21-22.

³¹⁴ BRAZIL. PPCDAm fase 4, *op. cit.* p. 83.

³¹⁵ BRAZIL. PPCDAm fase 4, *op. cit.* p. 81.

³¹⁶ BRAZIL. PPCDAm fase 4 – Plano Operativo, *op. cit.* p. 15-24.

4.2 Monitoring and control

The thematic axis of monitoring and control was, since the policy's beginning, justified by a need to overcome a situation of “absence of *Estado de Direito*”³¹⁷ in several places in the Amazon, understood as one of the main factors facilitating illegal deforestation. Monitoring and control should thus encompass a set of integrated actions that could “translate into an effective and definitive presence of the state in the Amazon region in the short, middle, and long terms.” Another idea that was very much present since PPCDAm's first document of reference was the association of environmental crime with other illicit acts such as land grabbing, illegal possession of weapons, gang formation, swindling, fraud, slave labor and other violations of labor rights, tax evasion, money laundering, concussion and embezzlement, biopiracy, and international and domestic drug trafficking. The relevance of adopting a “culture of integrated environmental inspection” could not be more emphasized by the actors involved in the writing of PPCDAm's documents.³¹⁸

PPCDAm's formulators were also painfully aware of the limitations of previous “task forces” established for the Amazon, whose punctual and temporary efforts had been rapidly frustrated in the face of the scope and diversity of environmental criminality, the variety of agents and motivating factors for the practice of illicit acts, and the state's restrictions in terms of budget, infrastructure and human resources. As “past experiences in establishing task forces had only very limited success in political and operational terms,” command and control activities under PPCDAm should be rather seen as “steps toward the consolidation of an integrated work culture in the scope of monitoring, licensing, and enforcement policies.”³¹⁹ They were equally conscious that fighting deforestation and building “environmental citizenship” in the Amazon could not only be a task of the state but required the involvement of civil society and the private sector. Law enforcement could not be conceived in isolation but needed to be accompanied by preventive initiatives of social sensitization and mobilization, as well as positive incentives to a transition toward sustainable productive activities.³²⁰

³¹⁷ Although a deeper discussion on the matter cannot take place here, I follow Juliano Zaiden Benvindo's position that *Estado de Direito* cannot be directly translated as *rule of law*. Whereas the connotation of *rule of law* in English has never departed too much from the principle of judicial independence and the protection of individual freedoms against the state, *Estado de Direito* is contemporarily more related to the creation of conditions to overcome inequality and deepen democracy, challenges that require an active involvement of the state in redistributive policies. BENVINDO, Juliano Zaiden. *The Rule of Law in Brazil: the legal construction of inequality*. Oxford: Hart Publishing, 2022, p. 14-30.

³¹⁸ BRAZIL. PPCDAm fase 1, *op. cit.* p. 23-24.

³¹⁹ BRAZIL. PPCDAm fase 1, *op. cit.* p. 23-24.

³²⁰ BRAZIL. PPCDAm fase 1, *op. cit.* p. 23-24.

Accordingly, the policy's first document of reference established undesigned public lands, conservation units, and indigenous lands, on the one hand, and deforestation in private properties with more than 100 hectares, on the other, as priority targets for command and control activities. The incorporation of these criteria into the planning of inspection operations demanded high-level intelligence work based on up-to-date satellite data and field information. A handful of activities were envisaged for PPCDAm's first phase. These included installing 19 Ibama units in the arc of deforestation; improving the satellite system Deter and complementary alert systems; carrying out reconnaissance overflights of critical areas; and streamlining the production of guide maps of deforested areas to serve as geographic references for inspection teams. It also established as priorities to streamline the production of infraction reports by crossing up-to-date satellite images with old satellite images (historical deforestation) and databases of authorizations to suppress native vegetation already issued; digitalize internal system; identifying offenders and their connections with organized crime; identifying illegal communication systems in the field (using electromagnetic spectrum tracing); and trace the wood/furniture and coal/steel production chains alongside the commercial supply chains of inputs and products supporting deforestation.³²¹

Furthermore, the monitoring and control axis of PPCDAm Phase I aimed at making available storage yards and means of transportation, as well as human resources (operators, mechanics and loaders) for the custody and removal of seized equipment and goods. It also planned to provide camping facilities for inter-institutional inspection teams; train Ibama inspectors in recognizing and reporting labor offenses, as well as labor inspectors and police officers in recognizing and reporting environmental offenses; and immediately carry out integrated inspection operations. The plan also foresaw the drafting of standard cooperation agreements between Ibama and environmental agencies at subnational level and the improvement of environmental legislation, by reviewing the Environmental Crimes Law to operationalize the immediate destination of perishable seized goods and Ibama's internal acts to regulate the conversion of fines.³²²

Changing Ibama's image before local actors was also considered relevant. This should be done through campaigns to collectively encourage legality, discourage illegality and bring visibility to the joint/transversal performance of public power. Social mobilization efforts here meant conducting field trips to contact local leaders (health agents, religious leaderships, resident associations, grassroots movements, and rural unions) in areas near the new operational

³²¹ BRAZIL. PPCDAm fase 1, *op. cit.* p. 85-118

³²² BRAZIL. PPCDAm fase 1, *op. cit.* p. 85-118

bases; establishing localized communication strategies for operational bases; carrying out local seminars with different social actors to raise awareness of potential damages of deforestation and forest fires; involving different local actors in the elaboration of best practices pacts; organizing fairs, seminars and exhibitions; promoting campaigns about the risk of small burnings becoming forest fires; and carrying out workshops with technicians and inspectors from Ibama and partner institutions as multipliers agents in community and corporate forest management.³²³

The first independent audit assessed the performance of command and control activities implemented in the policy's first phase as "high."³²⁴ PPCDAm's second document of reference indicated as results achieved in the previous phase the creation of the Deter system, which generates daily deforestation alerts, and improvement of the Prodes system, which generates annual deforestation rates; the consolidation of a new inspection methodology at Ibama, with incorporation of priority municipalities into operational planning and participation of the Army, the Federal Police and the Federal Highway Police, which resulted in significant increase in the application of fines and seizure of illegal timber and equipment; and the adoption of anti-corruption actions, leading to the criminal persecution of more than 600 civil servants.³²⁵

According to the document's own evaluation, the integrated actions taken by Ibama together with partner institutions "allowed greater synergy and increased the effectiveness of efforts to control deforestation." The biggest and most visible repressive action was Operation Fire Arch, conducted in municipalities located within the arc of deforestation. Furthermore, the development of Deter, which at the time operated with a spatial resolution of 25 hectares, endowed the agents with "more precise information about the logic, agents and vectors of deforestation." PPCDAm's formulators knew, however, that there were limits to sustaining the effectiveness of a negative agenda: "the more one advances with control, the more difficult it is to continue reducing the rate through enforcement." They emphasized, again, the importance of making "massive investments in territorial planning and, above all, in sustainable production activities," in order to zero illegal deforestation. Changing the pervasive short-sighted economic rationality of producing low-value-added commodities through the continuous conversion of forest into plantations or pasture did not depend exclusively on enforcement agencies; other public and private needed to be on board. Therefore, intending to increase the state's non-repressive presence in the priority municipalities that had been the stage of Operation Fire Arch,

³²³ BRAZIL. PPCDAm fase 1, *op. cit.* p. 85-118

³²⁴ ABDALA et al., *op. cit.*; DE MELLO, *op. cit.* p. 28.

³²⁵ BRAZIL. PPCDAm fase 2, *op. cit.* p. 10.

the federal government launched Operation Green Arch, focused on positive incentives to foster the transition from a predatory production model to a “model that keeps the forest standing, generates sustainable employment and income, and expands citizenship and life quality.”³²⁶

PPCDAm’s second document of reference planned another set of command and control activities for the next phase. These included the assembly of new Ibama mobile bases; further improvement of Deter (Ibama and Inpe signed a partnership with the Japanese government to systematically receive orbital images from a satellite that allowed the detection of deforestation smaller than 25 hectares, even in times of low visibility due to cloud cover); and the implementation of Degrad (a new system launched by Inpe to map, with a spatial resolution of 6.5 hectares, areas where vegetation was degraded but had not yet been completely removed). The activities also encompassed the assembly and implementation of new operational bases of the Federal Police and Ibama in critical areas of deforestation; the creation of the Environmental Operations Company within the structure of the National Security Force, composed of 400 military police officers available for immediate deployment in support to Ibama and ICMBio inspection teams (an initiative of the Ministry of Justice in partnership with the Ministry of Environment); and training of 800 rangers to work inside conservation units.³²⁷

Furthermore, the monitoring and control axis of PPCDAm Phase II also registered the need for streamlining the procedures of fine collection and destination of seized goods, by sensitizing the Judiciary and Ministério Público on issues related to deforestation; supporting the implementation of CAR in rural properties of 15 priority municipalities; formalizing conduct adjustment agreements for the recovery of deforested and degraded areas; and strengthening the operational capacity and staff technical quality of subnational environmental agencies. The activities listed on the plan also involved the signing of cooperation agreements for the creation or strengthening of the Environmental Battalions of the Military Police; training human resources at master’s and doctoral levels to research land-use and land-cover change, population dynamics and human occupation, climate modeling; multiscale physical-chemical interactions at the biosphere-atmosphere interface, physicochemical-biological processes in aquatic and terrestrial ecosystems and their interactions, social dimensions of environmental changes in the Amazon, among other topics. Lastly, PPCDAm’s formulators registered the intention of hiring new monitoring aircraft and securing fuel for 5 daily flight hours, for 280 days/year, with the Federal Police’s helicopter to monitor critical areas.³²⁸

³²⁶ BRAZIL. PPCDAm fase 2, *op. cit.* p. 15.

³²⁷ BRAZIL. PPCDAm fase 2, *op. cit.* p. 86-118.

³²⁸ BRAZIL. PPCDAm fase 2, *op. cit.* p. 86-118.

The second independent audit issued specific recommendations for the command and control thematic axis. In the auditors' view, a system able to predict where new deforestation is likely to occur should be developed. Maps with deforestation polygons and hotspots should be provided regularly to municipalities. Greater transparency and integration between state and federal environmental databases should be pursued, especially with regard to timber management plans and deforestation permits. Mechanisms for tracing the various production chains, especially meat, timber and grains, should be implemented in order to give greater transparency to productive activities and to enable more advanced links along the chain (e.g. supermarkets) and consumers to effectively check the compliance of primary activities in rural areas. Administrative punishment of environmental offenders should be streamlined, for instance through the creation of specific environmental and land courts. Achieving a determined percentage of paid fines should be made into a goal. Statistical and spatial analyses should quantify the effectiveness of each type of command and control action for the aggregate reduction of deforestation. More resources should be invested in states and municipalities that are implementing the CAR. The CAR database should be accessible to all environmental control agencies such as Ibama, state environmental agencies, and municipal environment secretariats. Lastly, a mechanism for monitoring the conduct adjustment agreements derived from CAR should be designed.³²⁹

PPCDAm's third document of reference mentioned the execution of hundreds of inspection operations in critical areas as main result achieved in the previous phase. Ibama, in partnership with the Army, Federal Police, Federal Highway Police and National Public Security Force planned and executed 649 integrated inspection operations in priority areas, which resulted in a total of BRL 7.2 billion in fines issued, 864,000 cubic meters of timber seized and 600,000 hectares embargoed. Clandestine timber companies were closed down, criminal organizations were dismantled, large volumes of illegal timber were seized. Moreover, multiple monitoring systems (Prodes, Deter, Degrad, Detex, TerraClass) were improved. 50 new rangers were trained to protect conservation units. A central nucleus to coordinate the investigation of environmental crimes was created, the Interministerial Commission to Combat Environmental Crimes (CICCIA). At the normative level, a resolution restricting public credit to undertakings linked to illegal deforestation was enacted by Brazil's Central Bank in 2008,³³⁰

³²⁹ IPEA, GIZ, CEPAL, *op. cit.* p. 36-37.

³³⁰ BRAZIL. Central Bank [Banco Central]. Resolution No. 3,545/2008. Available at: <https://www.bcb.gov.br/pre/normativos/res/2008/pdf/res_3545_v1_O.pdf>. Accessed on 10 October 2023.

and a complementary law enacted in 2011 provided a new framework for the cooperation among the Union, subnational states, and municipalities on environmental matters.³³¹

New activities were planned for PPCDAm's fourth phase. These included speeding up the licensing of forest management plans and forest concessions, something that depended largely on subnational environmental agencies; keep improving satellite systems and integrated planning strategies; and reducing deforestation inside federal conservation units and indigenous lands. Furthermore, PPCDAm's formulators wanted to include Funai in the CICCIA; to enhance intelligence work to identify corruption; to train teachers in rural areas to deal with forest fires; to structure voluntary fire brigades; to reduce the rate of judicial invalidation of administrative infraction reports; to implement the electronic infraction report; to sensitize the judiciary to the dynamics of environmental crimes (through seminars, workshops, etc.); and to create a virtual platform for agricultural management with access available to control bodies, with a view to increase traceability of the beef and timber supply chains.³³²

PPCDAm's fourth document of reference mentioned as main result achieved the launch of Deter-B, which had a spatial resolution to areas smaller than 25 hectares and was sensitive to other interventions in addition to clear-cut deforestation, such as degradation, forest fire scars and legal and illegal logging. The operative plan attached to PPCDAm's fourth document foresaw additional activities to be implemented in the next policy phase, such as to increase the punishment of environmental crimes and administrative infractions. To measure the strictness or effectiveness of punishment, PPCDAm's formulators designed multiple indicators, such as number of proceedings initiated; administrative judgments decided in first and final instance; cases judged in final instance; percentage of fines confirmed in final instance; percentage of fines paid; embargoes resulting from environmental violations; court convictions confirming administrative decisions; and criminal lawsuits filed and judged. Furthermore, Phase IV also registered the intention to improve the auditing of state management plans in the surrounding of indigenous lands; to monitor embargoed areas under responsibility of subnational states; and to guarantee access to images in better spatial resolutions, making available imagery of 250m (Deter A), 60m (Deter B) and 30m (Deter C).³³³

³³¹ BRAZIL. Complementary Law No. 140/2011; BRAZIL. PPCDAm fase 3, *op. cit.* p. 23-24.

³³² PPCDAm fase 3, *op. cit.* p. 124-141.

³³³ PPCDAm fase 4 – Plano Operativo, *op. cit.* p. 25-40.

4.3 Sustainable productive activities

Fostering the transition from an economic model based on the continuous conversion of forest into pasture or plantations toward one based on “economic options that can either coexist with the forest and the biodiversity or need them to exist,” proved to be the hardest challenge faced by PPCDAm. Aware of the magnitude of the efforts required to make such a comprehensive transformation happen, the policy’s first document of reference focused its initial actions on increasing the productivity of already deforested lands and making abandoned areas productive (deforested areas in the Amazon at the time comprised 63 million hectares, of which 16.5 million hectares were abandoned). The plan also stimulated the generation of employment and income for small and medium-sized producers, the recovery of permanent preservation areas (APPs) and legal reserves (RLs) in rural properties, and the production of high-added-value goods from raw materials sustainably extracted from the forest, such as wood, resins, oils, fibers, nuts, fruits, medicinal plants and inputs for cosmetic industry.³³⁴

The activities planned for the policy’s first phase encompassed the creation of new guidelines and criteria to access credit in the scope of the constitutional funds FNO and FCO; large-scale training in the topics of forest management, agroforestry systems, agroextractivism, agroecology, sustainable agriculture and cattle ranching, rural associativism and cooperativism; and the approval of a legal framework for payment for ecosystem services. Moreover, the plan foresaw the support of an increasing number of projects aimed at recovery and sustainable use of degraded and/or underused areas; reduction of import taxes for certified forestry machines and equipment; facilitation of access to credit for family farmers and small producers; adjustment of BNDES investment credit programs (such as Prodefruta, Moderagro, Prodeagro, Moderinfra, Prodecoop, Propflora, Proleite, Moderfrota) to the Amazon; and review of the Green Protocol (a letter of intent signed in 1995 by public and private financial institutions, in which they undertook a commitment to incorporate socio-environmental criteria into credit concession procedures). Based on the revised Green Protocol, a proposal for the adoption of standards by the National Monetary Council (CMN) would be formulated.³³⁵

The sustainable production axis of PPCDAm Phase I likewise aimed at implementing 7 new initiatives of community-based forest management and giving technical support to existing initiatives; organizing ecotourism training courses in 15 locations, as well as ecotourism workshops to be broadcasted through the radio network supported by Senac; and

³³⁴ BRAZIL. PPCDAm fase 1, *op. cit.* p. 25-26.

³³⁵ BRAZIL. PPCDAm fase 1, *op. cit.* p. 120-156.

consolidating 12 pioneer hubs oriented to sustainable family production that already existed, reaching 24,000 families. It also registered the need for extending agricultural zoning to the Amazon; adapting the minimum price guarantee policy to the Amazon; encouraging production of permanent oleaginous, fibrous, root crops, fruit tree seedlings, and medicinal plants; stimulating organic agriculture; developing priority research to stimulate the emergence of innovative enterprises based on the sustainable use of forest resources. Another priority was to build a regulatory framework for the concession of public forests for sustainable management (drafting a bill and submitting it to Congress). PPCDAm's formulators equally wanted to reduce the resistance of subnational state governments with respect to the creation of conservation units and indigenous lands, for instance by instituting a mechanism to financially compensate the states in proportion to the extension of protected areas they create and maintain. In this regard, they signaled the importance of making a political effort to approve in Congress Draft Bill No. 351/2002, which aims to institute a permanent funding mechanism for sustainable production shared by the federal and state governments.³³⁶

The first independent audit assessed the performance of the sustainable productive activities implemented during the policy's first phase as "low."³³⁷ PPCDAm's second document of reference mentioned as results achieved in the policy's previous phase the institutionalization of Operation Green Arch as a permanent action, with its own national committee, through presidential decree,³³⁸ the enactment of the Public Forests Management Act,³³⁹ which regulated the concession of public forests for sustainable management; the strengthening of the Brazilian Forest Service; the creation of the BR 163 Sustainable Forest District; the realization of the first public tender for forest concession; and the structuring of the Amazon Fund.³⁴⁰

As described above, Operation Green Arch, launched in May 2008, was an attempt to increase the non-repressive presence of the state in the priority municipalities that had been targeted by command and control activities in the scope of Operation Fire Arch. The positive agenda brought by Operation Green Arch encompassed both emergency and structuring actions: the first aimed at helping families that had lost employment or income due to environmental inspection operations; the latter aimed at enabling permanent conditions for the region to transition toward a different economic model. Within Operation Green Arch specific services were provided. These included regularization of land titles through Terra Legal;

³³⁶ BRAZIL. PPCDAm fase 1, *op. cit.* p. 120-156.

³³⁷ ABDALA et al., *op. cit.*; DE MELLO, *op. cit.* p. 28.

³³⁸ BRAZIL. Decree No. 7,008/2009.

³³⁹ BRAZIL. Law No. 11,284/2006.

³⁴⁰ BRAZIL. PPCDAm fase 2, *op. cit.* p. 15.

training of rural technical agents and dissemination of knowledge and technology with support of Embrapa; direct subsidies to commercialization of extractivist products such as açai, rubber, nuts, and babassu by means of public purchases, with support of the National Supply Agency (Conab) and in the scope of the Food Acquisition Program (PAA) and the Minimum Price Guarantee Policy (PGPM). It also provided incentives for the recovery of degraded areas, legal reserves (RLs) and permanent preservation areas (APPs) through access to a newly created credit line within the FNO and FCO funds called *Prorrecuperação*, which offered an annual interest of only 4%, a grace period of 12 years and 20 years for debt repayment.³⁴¹

PPCDAm's second document of reference planned a new set of activities for the third phase. These included a sustainable agriculture program, with the founding of 260 pilot units and training of 7,800 producers; reduction of import taxes for forestry machinery and forestry equipment; and the introduction of tax incentives to encourage the recovery of APPs and RLs. They also involved implementing *Prorrecuperação* with resources from the FNO and FCO; following up and evaluating the Central Bank Resolution and the Green Protocol; and sending to Congress a draft bill creating the National Policy for Payment for Environmental Services.³⁴²

PPCDAm's formulators also wanted to structure the supply chains of sociobiodiversity products at local and national levels by consolidating institutional markets for them, especially through the Food Purchase Program (PAA), as well as commercial channels, credit lines, and pioneer hubs for sustainable family production. They aimed at providing technical support for a national policy proposal for supplying school meals with food produced by traditional communities, as well as supporting projects that transfer social technologies and add value to production, commercialization and distribution of products (at first mainly wood and furniture) from traditional communities. Efforts in this direction also meant genetically improving seedlings of *bacuri*, *camucamuzeiro*, *muricizeiro*, *cupuaçuzeiro*, *guaranazeiro*, *cajazeira*, and rubber trees; improving technology and knowledge for the production of nuts, honey and pollen by family farmers; and chemically characterizing the copaiba and andiroba oils. The package of measures of Phase III equally included hiring third parties to elaborate and implement projects for the recovery of APPs and RLs in Incra's rural settlements; monitoring the effectiveness of a letter of intent signed between the Ministry of the Environment and the São Paulo Industry Association (Fiesp); signing agreements with the public bank Caixa Econômica

³⁴¹ BRAZIL. PPCDAm fase 2, *op. cit.* p. 28-30.

³⁴² BRAZIL. PPCDAm fase 2, *op. cit.* p. 112-147.

Federal and the mining company Vale; as well as sectoral agreements with the timber and meat sectors, inspired by the Soy Moratorium.³⁴³

Despite all the institutional energy channeled into this axis, the second independent audit still assessed the performance of sustainable production as “low.”³⁴⁴ The auditors issued some specific recommendations to change this situation. Short-term actions should focus on organizing certain value chains already established as sustainable alternatives (e.g. agroforestry systems) and increasing the sustainability of conventional farming activities. Long-term actions should invest more resources in science, technology and development and allocate resources more effectively to create new economic activities that generate income without causing deforestation. Cattle raising should be a priority chain, because it occupies more than 60% of deforested areas and is considered the main driver of deforestation. Another priority chain should be sustainable forest management, with an increase in community-based forest management and forest concessions. More attention should be given to the municipalities targeted by Operation Green Arch and connected municipalities. Dialogue with and greater involvement of the private sector and civil society organizations in activities that promote deforestation reduction should be encouraged, following the example of the Soy Moratorium. The reasons for low adherence to existing programs should be identified and addressed; programs should be reformed to gain visibility and scale. Efforts in construction and maintenance of local infrastructure (storage, equipment, marketing, communication, and energy) should be intensified to raise productivity of family agriculture and sociobiodiversity production. Forest concessions and support for community forest management plans should be streamlined. The legal framework for the use of genetic resources and associated traditional knowledge should be improved to allow bioprospecting activities, research and exploration of new products. Technological innovation should be fostered by coordinating these actions with supporting public policies such as rural technical assistance, credit, infrastructure, marketing, and community training.³⁴⁵

PPCDAm’s third document of reference listed the bottlenecks encountered so far. The main difficulties in consolidating sustainable production identified were the low economic viability of productive chains that constitute alternatives to deforestation; the persistence of productive activities incompatible with environmental legislation in rural settlements; incipient infrastructure and logistics; insufficient policies and incentives to install and develop industries;

³⁴³ BRAZIL. PPCDAm fase 2, *op. cit.* p. 112-147.

³⁴⁴ IPEA, GIZ, CEPAL, *op. cit.* p. 37-38.

³⁴⁵ IPEA, GIZ, CEPAL, *op. cit.* p. 37-38.

and limited tax and credit incentives for sustainable production. Besides, economic transition would be hindered by persistent low policy regionalization, low social organization for production; low labor qualification; little dissemination and transfer of green technologies; insufficient mechanisms for non-reimbursable investments; and legal insecurity regarding economic exploitation of biodiversity.³⁴⁶

PPCDAm's third document of reference emphasized how the missions of eradicating poverty, guaranteeing food and nutritional security, and generating work and income were structurally linked to the challenge of reducing deforestation and conserving biodiversity. It mentioned that family farmers, who had been responsible for a non-negligible amount of recent deforestation, deserved special attention since they were a group characterized by low access to technology, productive and financial technical assistance, incipient production and weak presence in local and regional markets. The document also brought a stronger emphasis on climate change and the need to transit toward a low-carbon economy by valuing traditional knowledge and investing in education, science, technology and innovation. PPCDAm's connection with the ABC Plan, which had among its goals the recovery of 15 million hectares of degraded pasture over the next 10 years, was more clearly emphasized.

PPCDAm's third document of reference also outlined that, with the pulverization of deforestation polygons and the corresponding increase in the costs of inspection operations, the promotion of sustainable activities becomes even more relevant. Operation Green Arch began to target, in addition to municipalities prioritized in command and control actions, municipalities that had received investments – mainly directed at road paving and hydroelectric projects – from the Program for Growth Acceleration (PAC). Furthermore, 70% of the 65 municipalities targeted by the operation in 2009 were part of the so-called “Territories of Citizenship,” a program designed to promote regional development and guarantee social rights in regions with the highest poverty rates and the lowest HDI in Brazil. This convergence was a way to optimize public resources by acting synergistically with existing regional programs.³⁴⁷

The challenge of “establishing a new production model able to provide social and economic development by taking advantage of local regional vocations” called for strengthening existing productive arrangements and creating new ones. In this task, government programs for the purchase of products and price guarantees constituted important mechanisms

³⁴⁶ BRAZIL. PPCDAm fase 3, *op. cit.* p. 94.

³⁴⁷ BRAZIL. PPCDAm fase 3, *op. cit.* p. 96-99.

to “heat up regional markets.”³⁴⁸ The box below summarizes the most relevant programs and credit lines offered by the federal government during PPCDAm’s third phase.

Box 3: Programs and credit lines oriented to sustainable production

Programs

- 1) Food Purchase Program (PAA): created in 2003 under the scope of the Zero Hunger Program to ensure access to food in quantity and regularity needed by populations in situation of food and nutrition insecurity. It also aimed at forming strategic stocks and allowing family farmers to store their products and sell them at fairer prices. The government guarantees the acquisition of products from family farming and extractivism at prices compatible with the expectations of regional markets for the harvest season, being up to the producer to choose whether or not to sell her production to the state agency Conab.
- 2) Minimum Price Guarantee Policy (PGPM): employed when market prices are below the minimum in producing regions, consequently affecting the farmers’ decision to produce. In 2009, a sub-modality focused on sociobiodiversity products was created.
- 3) National School Meals Program (PNAE): created in 1955, it guarantees school meals for students of all basic education (pre-school, elementary, high school, and youth and adult education) enrolled in public and philanthropic schools. The program's budget for 2011 was BRL 3.1 billion, to benefit 45.6 million students in basic education and young and adult education. With Law No. 1,1947/2009, 30% of this amount – that BRL 930 million - should be invested in the direct purchase of products from family farming.

Credit lines

- 4) PRONAF Agroecology: credit line for financing investments in agroecological or organic production systems.
- 5) PRONAF Agroindustry: credit line for financing investments aimed at processing, improving and commercializing agricultural and non-agricultural production, forest products and extractivism, or handcrafted products and rural tourism.
- 6) PRONAF Eco: credit line for financing investments in techniques that minimize the impact of rural activities on the environment.

³⁴⁸ BRAZIL. PPCDAm fase 3, *op. cit.* p. 105.

- 7) PRONAF Forest: credit line for financing investments in agroforestry systems, sustainable extractivism, forest management plans, restoration and maintenance of APPs and RLs, and recovery of degraded areas.
- 8) FNO Sustainable Rural Amazon: credit line for financing enterprises located in the North Region, with resources from the FNO.
- 9) FNO Biodiversity: credit line for financing the maintenance and recovery of Amazon biodiversity, accessible by enterprises that privilege the rational use of natural resources, adopt good management practices, or aim at recovering degraded areas in rural properties.
- 10) FCO Low Carbon Agriculture Program: credit line for financing sustainable agricultural techniques that contribute to the reduction of greenhouse gas emissions, mainly through direct reforestation; recovery of degraded pastures; crop-livestock-forest integration; planting commercial forests; biological fixing of nitrogen and treatment of animal waste.

Source: BRAZIL. PPCDAm fase 3, *op. cit.* p. 105-109.

The activities planned to be implemented in PPCDAm's next phase, with support of the Ministry of Science and Embrapa, had a focus on constructing and socializing knowledge by generating and making available technologies aimed at increasing productivity and competitiveness of sustainable agriculture and sociobiodiversity products. These activities included incentivizing milk industry; supporting responsible tourism in indigenous lands; promoting rotational agriculture; creating a national forestry inventory; fostering alphabetization; opening communitarian kitchens; and disseminating technical guidelines for the management of andiroba, Brazilian nut, cacao, *feijão-caupi*, *mangaba*, *bacurizeiro*, *camucamuzeiro*, *dendezeiro*, *cupuaçuzeiro*, *cajazeira*, *muricizeiro*, among other species.³⁴⁹

PPCDAm's fourth document and its attached operative plan foresaw a new set of activities to be implemented in the policy's next phase. They encompassed drafting and approving municipal and state laws on sustainable extractivism and access of extractivists to public and private territories that contain extractive species, such as the Free Babassu Act (a legislative bill pending deliberation and approval in Congress since 2009 that aims to prohibit the cutting of babassu trees in six states, as a way to guarantee the subsistence of traditional communities of babassu coconut shellers).³⁵⁰ PPCDAm's formulators also underscored the relevance of exempting sociobiodiversity products from certain taxes (e.g. ICMS, levied on the circulation of goods), to increase their competitiveness in the market; as well as debureaucratize

³⁴⁹ BRAZIL. PPCDAm fase 3, *op. cit.* p. 141-168.

³⁵⁰ BRAZIL. Draft Bill No. 231/2007, stuck in the House of Representatives since 2009.

the process for purchasing sociobiodiversity products by the National School Meals Program (PNAE). This set of activities likewise indicated the need to incentivize ranching expansion into areas already degraded or abandoned, and to increase average cattle stocking rates.³⁵¹

4.4 Economic and normative instruments

The thematic axis dedicated to economic and normative instruments was created only in the fourth phase, to aggregate and better follow up the legal innovations that had been gradually introduced during the first three phases. The main initiatives planned to be monitored under this axis were Decree No. 6,321/2007; Decree No. 6,514/2008; and Resolutions No. 3,545/2008 and No. 4,327/2014 jointly issued by the National Monetary Council (CMN) and the Central Bank.

Decree No. 6,321/2007 introduced three crucial legal innovations in the Brazilian environmental legal framework. First, it formulated criteria for the Ministry of the Environment to list priority municipalities for purposes of command and control operations. To be listed, a municipality must have a certain percentage of its area already deforested, historically and in the past three years, and experience an increase in deforestation in at least three of the past five years. For a municipality to be excluded from the list, it must cumulatively comply with the following requirements: that at least 80% of its territory occupied with rural properties was duly monitored by the CAR and that the average deforestation of the three previous years was equal to or less than percentages established by internal ordinances by the Ministry of the Environment. Besides, the decree created the institute of “mandatory re-registration” of land titles in critical municipalities and prohibited public financial institutions from giving credit to undertakings operating in embargoed areas.

Decree No. 6,514/2008 regulated the procedures for administrative and criminal persecution against environmental illicit acts. It defined more detailed protocols and criteria for seizure and embargo. From then on, the destruction of instruments used in the infraction became mandatory “when necessary to avoid their improper use; when the circumstances make unfeasible their transport and custody; or when they may expose the environment to significant risks or compromise the safety of the population and the public agents involved in inspection.” Seized goods should mandatorily “be kept under the custody of the entity responsible for inspection, and only exceptionally should be entrusted to another trustee until the judgment of

³⁵¹ BRAZIL. PPCDAm fase 3, *op. cit.* p. 41-51.

the administrative proceeding.” If the seized goods were under imminent risk of perishing, they could receive an immediate destination (either destroyed, sold, or donated to non-governmental “institutions with charitable purposes”). Embargo of areas destined for family subsistence activities was expressly prohibited.

In addition, Decree No. 6,514/2008 established the legal basis for what could be tentatively called “shared supply chain responsibility” for illegal deforestation in the Amazon. “Acquiring, intermediating, transporting, or commercializing any product or sub-product of animal or vegetal origin produced in an embargoed area” was transformed into an infraction, equally subjected to fine, embargo, seizure, destruction, and suspension. Ibama was authorized to require information about suppliers of agroindustrial undertakings based on the Amazonian biome, and the omission of data or the provision of false information by the undertakings started to be considered an infraction.

Resolution No. 3,545/2008 conditioned the concession of subsidized rural credit in the Amazon by all public banks, private banks and credit cooperatives upon proof of land titling and compliance with the Forest Code. According to the resolution, applicants should now present to the banks the following documents: Certificate of Registration of Rural Property (CCIR); declaration of inexistence of embargoes; and license or certificate proving the property’s environmental regularity.

PPCDAm’s writers considered that analyses on the impact of credit restriction were still very incipient, which prevented them from reaching more substantiated conclusions. The resolution was not followed by the creation of more consistent governance structures and monitoring mechanisms that would allow assessing the impact of credit restriction. Its biggest shortcoming was that the environmental conditionality could be proved with property registry in the CAR, an instrument that, due to lack of institutional structure in the states to conduct on-site validations in scale, remained largely self-declaratory.³⁵²

In an attempt to improve the timid results achieved by credit restriction, Resolution No. 4,327 was issued in 2014. It required the adoption of a Socio-Environmental Responsibility Policy (PRSA) by financial institutions. PPCDAm’s formulators hoped this would provide for the incorporation of social and environmental factors in risk analysis by financial institutions. Aware, nonetheless, that negative conditionalities are not sufficient and should have positive incentives as a counterpart, PPCDAm’s formulators tracked data from the Central Bank to complementarily assess the granting of credit through PRONAF and the ABC Plan between

³⁵² BRAZIL. PPCDAm fase 4, *op. cit.* p. 52.

2013 and 2015. They found that PRONAF represented approximately 14.5% of the total rural credit granted. Within PRONAF, credit lines related to sustainable forestry and agroecology represented only 0.07% of the rural credit granted. Similarly, the ABC Program represented, in the same period, only 1.75% of the rural credit granted. Only 1.86% of PRONAF resources and 2.32% of ABC Program resources were allocated to priority municipalities in the Amazon.³⁵³

Furthermore, the operative plan of PPCDAm phase IV identified a fundamental normative deficit regarding payment for environmental services. At the time, the subject continued to be approached from pilot experiences, and there was little progress in negotiations with Congress to approve a national policy. Another normative deficit concerned community-based forest management, its rules, procedures and beneficiaries. Something that was positively evaluated was the revision of Conama's Resolution No. 411/2009, which changed the volumetric yield coefficient for the conversion of round wood into sawn wood from 45% to 35%, reducing the possibility of "warming up" illegal wood with legally extracted wood.³⁵⁴

The new activities planned for PPCDAm's next phase included improving existing instruments of public purchases, such as the Food Purchase Program (PAA), the National School Meals Program (PNAE) and the Policy for Guaranteeing Minimum Prices for Sociobiodiversity (PGPM). They also encompassed the creation of instruments for the acquisition and commercialization of forest products; the regulation of the environmental reserve quotas (CRA), which are negotiable legal titles representing areas with native vegetation or in regeneration that exceed RL requirements; and the review of the criteria for entering and leaving the list of priority municipalities provided for in Decree No. 6,321/2007.³⁵⁵

³⁵³ BRAZIL. PPCDAm fase 4, *op. cit.* p. 52-55.

³⁵⁴ BRAZIL. PPCDAm fase 4, *op. cit.* p. 52-55.

³⁵⁵ BRAZIL. PPCDAm fase 4 – Plano Operativo, *op. cit.* p. 52-60.

CHAPTER 5. PERSISTENT CHALLENGES

From the analysis of the official documents, the independent audits, the consulted literature, and the interviews, it was possible to identify four critical issues that curtailed PPCDAm's efficacy. The first challenge regards the greater difficulty in advancing a positive agenda (strengthening production and commercialization of family farming, agroecology and sociobiodiversity products) vis-à-vis a negative agenda (territorial planning, inspections, fines, seizures, and embargos). The second challenge relates to the preponderant reliance on executive orders in detriment to legislative bills to build the policy's legal architecture. The third challenge concerns an enduring resistance of subnational governments (states and municipalities) in taking concrete actions to restrain agribusiness expansion, in counterpoint to the federal government's agenda. The fourth challenge amounts to a mismatch between the performance of environmental and land agencies at the federal level. The sections below explore each of these unresolved points of tension in more detail.

If policy documents were the main empirical source for the last chapter, the current chapter draws primarily on the interviews. Each section has a similar structure. First, it formulates the challenge as framed in the language of policy documents and very briefly reviews selected literature on the topic. Then, it presents the question posed to the interviewees. In light of what the research subjects were asked, their answers can be better assessed by the reader. The interviewees' answers are then clustered according to similar patterns of meaning. I tried to incorporate and analyze, to the richest level of detail, most of the interviewees' particular experiences subtending their abstract contentions. For example, when an environmental agent claimed that projects sustained by the Amazon Fund suffer from a "chicken flight logic," this assertion was accompanied by short descriptions of three community-based projects in extractivist reserves he followed closely. When a civil servant argued that subnational bureaucracies are weaker because usually they are not tenured but can be fired at the will of local politicians, his statement was complemented by the episode in which his entire team had to waive flags and hand out flyers in the streets for a big shot's campaign during work time. More than mere illustrations or anecdotes, these real-life experiences are the material of which comprehensive worldviews are made. Far from proposing solutions to the four identified problems that undermined the efficacy of PPCDAm, this chapter intends to contribute to their better understanding and formulation.

5.1 Positive vs. negative agenda: adding value to sociobiodiversity supply chains

PPCDAm's architects soon realized that changing the economic model of the Amazon from one based on extensive cattle ranching and monocrop agriculture toward one grounded on family farming, agroecology, and sociobiodiversity products would demand much more public investment than the activities carried out under the rubrics of territorial planning and command and control. Increasing the economic viability of the novel model required generating and disseminating technology, facilitating access to credit, linking small producers to consumer markets, and guaranteeing minimum prices through public purchases and subsidies. Since the policy's second phase, therefore, the axis of sustainable production received the larger proportion of federal resources destined for PPCDAm, and a lot of attention was devoted to strengthening policy synergies and institutional convergences that could increase the economic feasibility of agroecology and sociobiodiversity products – among which the Food Purchase Program (PAA), the Minimum Price Guarantee Policy (PGPM), the National School Meals Program (PNAE) and the National Program for Strengthening Family Agriculture (PRONAF) stand out. Moreover, a significant amount of the donations raised through the Amazon Fund were channeled into community-based projects aimed at sustainable production, especially within indigenous and traditional lands.

That notwithstanding, the insufficiency of efforts oriented to sustainable production was a fragility continuously pointed out by the independent audits and PPCDAm's documents throughout the policy's 14 years of implementation. The problem was framed by policy documents as a deficit of "social organization" for production and commercialization: infrastructure and logistics were lacking, industries that could aggregate value to raw materials were incipient, labor force needed qualification, green technologies still had to be developed and transferred, markets should be more regionalized, the amount of credit put into extensive cattle ranching and agribusiness would eventually need to go through a relative decrease. As Unger, then the minister of the Secretariat for Strategic Affairs, wrote in a policy paper, the initial problem faced by community-based extractivism was "to conciliate the intrinsic pulverization of these activities with the economy-of-scale logic." The starting point for dealing with this apparent paradox would be first to find consumer markets, then organize value-adding processes, and only *later* offer credit, instead of putting the cart before the horse and "start

producing things before even knowing who will or can buy them,” “financing productive activities to markets that still do not exist.”³⁵⁶

The discussion on sustainable production revolves, to a large extent, around the issue of raising its economic attractiveness vis-à-vis other activities such as cattle ranching. The threefold logic of finding (or creating) consumer markets, organizing value-adding linkages, and then pouring down cheap credit, tax waivers and other subsidies might appear simple and straightforward at first sight. Yet, as policy studies have consistently argued, planners often underestimate “the number of steps involved, the number of participants whose preferences have to be taken into account,” and the geometric growth of interdependencies over time, whose implications ramify.³⁵⁷

In the literature specialized in the evaluation of public policies oriented toward agroecology and sociobiodiversity supply chains, we find indications of the concrete “ramified interdependencies” that contribute to frustrating efforts to increase the economic feasibility of sustainable production in the Amazon. In an essay dedicated to showing how public subsidies to family farming and small-scale extractivism, notably the abovementioned PAA, fit into the notion of “solidary economy,” Simoni argued that these incentives played a crucial role in organizing markets for sustainable products, chaining supply and demand while simultaneously feeding the poor and guaranteeing a fairer price for small producers.³⁵⁸ In a parallel venue, Azevedo et al. compared the total amount of rural credit with the percentage lent through PRONAF in the Amazon region between 2002 and 2006. They found that while the number of PRONAF contracts increased from 31,320 to 80,516 and the volume of credit increased from BRL 155 million to BRL 583 million, the total amount of rural credit destined for the Amazon was still approximately 615% higher than the credit offered to family farming in the region.³⁵⁹

With regards to sociobiodiversity productive chains, a survey carried out by ICMBio and analyzed by Teixeira et al. showed that a large part of the production in extractivist reserves is destined for the communities’ subsistence, not to be sold in local markets. Therefore, both the diversity of species and the quantity of production were often underestimated in official

³⁵⁶ UNGER, Roberto Mangabeira. Ideário. In: *Soerguimento tecnológico e econômico do extrativismo na Amazônia*. Brasília: Centro de Gestão e Estudos Estratégicos, 2011, pp. 21-24.

³⁵⁷ PRESSMAN, Jeffrey; WILDAVSKY. *Implementation: the Oakland Project*. 3rd. ed. Berkeley: University of California Press, 1984, p. 93.

³⁵⁸ SIMONI, Jane. A revitalização do extrativismo: práticas de economia solidária e sustentabilidade. *Mercado de Trabalho - Ipea* 42, 2010, pp. 49-53.

³⁵⁹ AZEVEDO, Francisco; PESSÔA, Vera Lúcia. O programa nacional de fortalecimento da agricultura familiar no Brasil: uma análise sobre a distribuição regional e setorial dos recursos. *Sociedade e Natureza* 23(3), 2011, pp. 483-496.

statistics, as they ignored the portions of production deployed for the community's sake.³⁶⁰ A study by Oliveira indicates the difficulty in guaranteeing uninterrupted favorable conditions for community members and buyers as one of the reasons for the discontinuity of production and commercialization of sociobiodiversity products. Another problem is their high seasonality, which significantly affects the price and scale of production.³⁶¹ Homma, an Embrapa technician who openly endorses a more market-oriented view of sociobiodiversity products, claims that in the case of extractivist food products that have high demand but low supply, the only alternative to make them economically feasible is to resort to the domestication of the extractivist species to augment their scalability. Products that have substitutes or large stocks in nature, encounter lower demand, face technical difficulties in planting and require a long time to pay back the initial investment, in their turn, would be less likely to become cultivated species.³⁶²

In her evaluation of six extractivist cooperatives dedicated to the production of Brazilian nut (*castanha-do-brasil*), three based in Acre and three in Amapá, Diniz found that the process of adding value to extractive products was hindered by a low level of productive diversification (most cooperatives work with just one product), a low level of industrial transformation (most cooperatives lack processing technologies), lack of certification (which could differentiate the product from conventional ones), lack of involvement of the communities' younger and older generations (most initiatives were carried out just by communitarian leadership), and a strong dependence on intermediaries (who possess a wider knowledge about logistics, clients and market niches).³⁶³

Rocha evaluated the impact of two governmental projects in a community of babassu coconut shellers in the Bico do Papagaio region, located in the North of the state of Tocantins and within the Legal Amazon, which had been included in the "Territories of Citizenship" in reason of its low HDI. A project funded by the Program for Growth Acceleration (PAC) and developed with the involvement of communitarian leadership built 884 houses in 16 villages to benefit babassu coconut shellers. The other project, funded by the Ministry of Integration, aimed at revitalizing the babassu micro-plant, building a mini soap factory and training the

³⁶⁰ TEIXEIRA, Thaís Helena et al. A diversidade produtiva em Reservas Extrativistas na Amazônia: entre a invisibilidade e a multifuncionalidade. *Desenvolvimento e Meio Ambiente* 48, 2018, pp. 164-183.

³⁶¹ DE OLIVEIRA, Maria Katherine Santos. Inovação e tecnologia nas Resex e RDS. In: *Soerguimento tecnológico e econômico do extrativismo na Amazônia*. Brasília: Centro de Gestão e Estudos Estratégicos, 2011, pp. 129-174, p. 151.

³⁶² HOMMA, Alfredo. *Colhendo da natureza: o extrativismo vegetal na Amazônia*. Brasília: Embrapa, 2018, p. 93-94.

³⁶³ DINIZ, Janaína Deane de Abreu Sá. Avaliação-construção de projetos de desenvolvimento local a partir da valorização dos produtos florestais da Amazônia brasileira: caso da castanha-do-brasil. (Doctoral Dissertation) – University of Brasília, 2008, p. 202-215.

families to process the babassu mesocarp, to increase the communities' income. The first project was considered a response to an endogenous demand from the communities, and was positively evaluated as "having promoted a relative improvement in the [shellers'] living conditions." On the other hand, the second project was seen as corresponding to governmental demands and was criticized for not delivering some of the expected results (the activation of the mesocarp processing factory, for instance, apparently did not happen or was significantly delayed), and for aiming at long-term goals but only providing resources for the short-term.³⁶⁴

Similarly, in his case study about the Brazilian nut, copaiba and andiroba productive chains in the states of Acre, Amapá and Amazonas, Enríquez found that, in 2008, most of the residents of extractivist reserves (52% of his sample) perceived an improvement in their life conditions. Irregular demand, strong annual price fluctuation, high price-elasticity of demand, inconstancy in scale, deficit of training, and need for machinery would be the main challenges faced by policies oriented toward strengthening these productive chains.³⁶⁵ Conceição et al.'s research on the piquiá productive chain in the municipality of Santarém, Pará, identified that local demand was quite heated; the product's high seasonality and precarious means of transportation rather being the main difficulties encountered by the extractivists surveyed.³⁶⁶

Based on PPCDAm's documents and the findings offered by this literature, the interview guides included a question about the reasons why sustainable production proved to be the harder policy axis to get off the ground. It was formulated in these approximate terms:

Local economies often end up turning to illegal mining and logging due to lack of alternatives. One of PPCDAm's axes aimed precisely at strengthening sociobiodiversity chains, forest products and agroecology. Many projects were conceived within this broader goal. Yet, we find in policy documents and scientific texts indications that these projects have not been as successful as we wanted them to be. In your experience, what were the reasons for this? What would be necessary to strengthen sociobiodiversity chains in the medium and long run?

Some interviewees answered, more generically, that this part of PPCDAm "was not really fully implemented" or "was not prioritized," and that to do so properly would require greater public resources in a more sustained timeframe. Others replied with rich reports of concrete situations they either experienced or witnessed regarding the challenge of adding value to sustainable products. Two of these stories had a positive tone, referring to cases of

³⁶⁴ DA ROCHA, Maria Regina Teixeira. A rede sociotécnica do babaçu no Bico do Papagaio-TO: dinâmicas da relação sociedade-natureza e estratégias de reprodução social agroextrativista (Doctoral Dissertation) – Federal University of Rio Grande do Sul, 2011, p. 192-204.

³⁶⁵ ENRÍQUEZ, Gonzalo Enrique Vásquez, Desafios da sustentabilidade da Amazônia: biodiversidade, cadeias produtivas, e comunidades extrativistas integradas (Doctoral Dissertation) – University of Brasília, 2008, p. 275; 355.

³⁶⁶ CONCEIÇÃO, Sabrina *et al.* Cadeia produtiva do piquiá no município de Santarém, Estado do Pará, Brasil. *Nativa* 5(1), 2017, pp. 31-36.

communities that were steadily empowered by successful experiences with extractivism or agroecology. Four other stories were narrated more negatively, hinting at the problems of high seasonality, small scalability, low liquidity, and limited regional markets found in the literature.

Lack of sustained funding

The subsequent excerpts convey the opinions of the interviewees who attributed the low performance of the sustainable production axis mainly to lack of sustained funding. The first statement was given by a representative of an NGO involved in the formulation of PPCDAm since its first phase. Besides mentioning the partial implementation of the sustainable production axis as a “gap,” she raised doubts about the possibility of advancing a positive agenda by having international cooperation programs as main source of funding and stressed the need for financial support from the Brazilian government.

PPCDAm in theory had a full design, it was a very broad policy on dealing with deforestation and its impacts. It was not ideal because it was not fully implemented. The part that should take infrastructure into account was not implemented. The aspects of improving the sustainable economy were not really fully implemented. Then you have a gap. [...] Because we will fight against deforestation and raise opportunities in the economy in another sense to support the communities to implement their management plans; strengthen the communities so that they have the governance of the territories, which is a key issue. But it's something that normally costs a lot of money. Even international cooperation programs now look at it and say ‘this is too expensive,’ and sometimes people don't want to pay for that. (Interview, NGO representative involved in the formulation of PPCDAm since its first phase).

The second statement was given by a former high-level employee of the Ministry of the Environment who was also a member of the Workers Party. In his view, PPCDAm’s achievements in the sustainable production axis were “compensatory improvements,” important but insufficient to change the pattern of wealth generation in the Amazon, still pretty much reliant on official funding for large-scale agriculture and extensive cattle raising. His comment on BNDES resonates with a remark included in PPCDAm’s fourth document of reference about credit: between 2013 and 2015, PRONAF represented around 14.5% of the total rural credit granted. Of this percentage, already relatively small, only 0.07% went to sustainable forestry and agroecology activities. Moreover, just 1.86% of PRONAF resources were allocated to the priority municipalities in the Amazon region.³⁶⁷ Whereas by 2015 the Amazon Fund raised approximately BRL 1.2 billion, in 2014 the Amazon region received almost BRL 7 billion in rural credit, 68% of which was destined for cattle ranching.³⁶⁸

³⁶⁷ BRAZIL. PPCDAm fase 4, *op. cit.* p. 20.

³⁶⁸ DE SOUZA, Silvio Braz *et al.* Crédito Rural no Brasil: evolução e distribuição espacial (1969 – 2016). *Revista Franco-Brasileira de Geografia* 45(2020), pp. 1-26, p. 10.

The fomentation and support of sustainable productive activities should not be reduced to sociobiodiversity chains. It aimed at changing the economic matrix of the Amazon. But nothing or very little changed. The Amazon production chains were inserted in global trade, especially the commodities, ore, grains, soybeans, wood, extensive cattle-raising. They dictated the rhythm of the economy. Even though there have been improvements, they were not enough to change this pattern, neither in large-scale production nor in traditional communities. Everything that was done there was truly marginal. On the margin. It was as if it was to compensate, let's say. But if you take the GDP [Gross Domestic Product] of the states of the Amazon, you will see that these sustainable activities have a very low weight in the generation of the GDP. A more robust strategy was lacking, even though we had in this period the transition from the PPCDAm to the Amazon Fund. But even so, if you take all the money from the Amazon Fund, it is very little compared to what the BNDES finances in terms of extensive cattle farming, mining, large-scale agriculture. The flagship continues to be the same as always, with more control, more order, fewer conflicts. (Interview with a former high-level employee of the Ministry of the Environment).

The third and fourth statements transcribed below were given by a former high-level employee of the Ministry of the Environment. Like the respondents quoted above, she mentioned participation in the regional GDP as a meaningful indicator to measure the impact of the changes induced by public policies, and stressed the importance of avoiding an extreme dependence on international funding. If mainstream agriculture and cattle ranching had to be heavily subsidized to reach the status of seeming success they currently enjoy, why would the path to economic feasibility be any different when it comes to sustainable productive chains and agroecology? Besides having worked with policymaking at the federal level and in the state government of Pará, the respondent was a consolidated academic and had decades-long connections with social movements in Pará. Her vision for the role of NGOs in a possible future reactivation of PPCDAm, however, was a complementary one. Community-based projects assisted by internationally-funded NGOs and higher socioenvironmental standards by more demanding markets would surely be welcome and help, but the bulk of investment, planning, and implementation of activities oriented to the transition to bioeconomy should be done by state agencies, and with a primary view to subsidizing healthier and more affordable food for the Brazilian internal market.

True governance comes together with command and control and state interventions to change the technological base of productive practices. You come with punishment on one side and, at the same time, with alternatives. Embrapa and other organs that have to be created and strengthened must come together and say 'look, you guy from São Félix do Xingu, you won't be able to increase your cattle by 25,000 head, but you can use a rotational system. Your cattle will be exported to such and such countries with a higher added value because of the environmental component, for example. You will no longer profit on the expansion of land use, you will profit on technology.' Is this expensive? Yes. But for soy to expand and become the top of the GDP today, didn't Embrapa get involved? Until they got to the point of not needing Embrapa anymore, because today commodities pay themselves. But until they did, it was the state that paid for the technological contribution. Sustainability is possible if we face the fact that it is expensive; if the Brazilian society understands that it has to invest in this. Agriculture and cattle raising in the Amazon were financed by the Brazilian society via Sudam. Millions and millions were invested there with that pattern. So, to change

to another pattern, it will take millions and millions again, for sustainable production to remunerate economically and become interesting. [...] And it is really [important] to have policies aimed at the economic valuation of sustainability in a massive way and not to depend on the money from the Amazon Fund, you know? 'Oh, if the foreigners finance it, we can do it, otherwise we won't do it.' No. This has to come from the Union's general budget. International cooperation cannot take care of this. They can even help us with something, but we need to have sovereignty in this, also technological. This is governmental policy. If Lula comes to power again, I think there will be a lot of formulation in this sense, but I hope that a kind of NGO vision of the alternative does not prevail. 'Oh, let's have the alternative.' The alternative helps, what solves is public policy.

Reforestation, forest recomposition, recovery of what has been degraded, must become a source of income supported by the government. [...] In parallel with a system of affirmative policies, with new economic horizons. There are a thousand formulations, call it what you will: bio-economy, ecological transition. These are the grand paths. Practical actions must be based on a change in the development financing policy. [...] Especially internally. The government will subsidize healthy food for our population as a base, and, additionally, seek external markets. Because I am also against this business of everything depending on whether Europeans want to buy from us. We are a gigantic market. Today we eat very bad quality food. The government should really finance sustainable food, be less dependent on pesticides, promote healthy food for the domestic market. It means that the farmer will need extra pay, extra subsidies, for him to put a pesticide-free tomato on the market and make it affordable for the population. A large-scale production system that is less dependent on external inputs and that can make our people eat more and healthier food. This as a general principle. How this is transformed into programs, there are a lot of paths, policies, programs that have already been in place, that were peripheral and can become central in government policy. It is a complex mechanism. But it is either this or the maintenance of the current structure, always dependent on new lands, which has brought us to this point of threat of irreversibility. (Interview with a former high-level employee of the Ministry of the Environment).

The fifth and sixth statements were given by Ibama servants directly involved with inspection operations. Both were convinced that the lowest deforestation rate registered in 2012 (4,571 km²) was the limit of what could be achieved with command and control. To bring this rate even further down, more significant advancements in the concretization of a positive agenda were indispensable. One agent referred to the result obtained through inspection as “artificial,” for it reflected a change in individual behavior sustained only under the surveillance of the state. In certain regions, as the other interviewee exasperatedly recalled, as soon as the operation team turns back and leaves, illegal activities are resumed. This clarity about the limits of command and control was not alien to the ideas animating the formulation of PPCDAm. The whole conception of the joint implementation of Operations Fire Arch and Green Arch was based on such an understanding.

If you look at the PPCDAm, the command and control part is very small. If we resume the PPCDAm with its social approach, of income generation, of fixating people in the countryside, we will already have a well-defined guideline on how to resume the work that has been done and that has already been successful. [We also need] to correct the mistakes we made, because we made many mistakes when we were conducting the PPCDAm. Several axes were not prioritized and this obviously harmed the progress of the plan. We need to reevaluate this, restructure it from time to time and continue with it, resuming a more social vision. This should be the priority. I dare to tell you:

[...] in two years we can bring deforestation under 5,000 square kilometers. And I am talking only about command and control actions. If we manage, parallel to this, to comply with the other axes of the PPCDAm, we can even achieve this faster and make this result not artificial, but long-lasting. The result we found in 2012 was artificial because we couldn't comply with all the axes of the PPCDAm. We only fulfilled the command and control and monitoring part well, we did this very well. (Interview, Ibama servant working with inspections).

We have managed to reduce deforestation to below 5,000 km² per year. There is a limit to what we can reach with command and control actions. The limit is around 4,000 to 5,000 km². Less than this, we will not manage with command and control actions alone. We need to give economic alternatives, to generate employment and income for these people to exit illegality, start working and see the forest differently. We reached that limit and the next step of the PPCDAm itself should have been done before but we failed. [...] We failed to conduct income alternatives for these people. We reached the limit of what we can do with command and control actions, according to the tasks that were given to us at the time. But we didn't evolve with income alternatives. [...] I do believe we can continue with the PPCDAm strategy, but we need to start in a very strong way to present alternatives for these communities. It is really a problem to arrive in a region like Jacareacanga, where the whole economy is based on illegal mining, to get there, destroy the mining and get out of there. You wait a week and everyone goes back to the same activity because they have no alternative. It will have no effect if we continue with these actions in certain regions because they need alternatives. This is the case in Jacareacanga and Itaituba. This is the case near the Yanomami indigenous land, the 20,000 gold miners who are there. These people need to be removed from there because they are committing a crime, but after they leave, where will they go? So, I believe that income generation is possible. We will just have to invest more in this, [Together] with other organs, we will be able to organize ourselves better to be able to present these alternatives. (Interview, Ibama servant working with inspections).

The seventh and last comment which attributed the low performance of the sustainable production axis primarily to lack of sustained funding was given by an Ibama servant who had already worked as an inspection agent “on the ground,” but today plans operations from the agency’s central headquarters in Brasília. He emphasized the economic burden that the predatory character of extensive cattle raising brings upon middle and small ranchers, who end up stuck in a “practically nomadic” way of life. Financial institutions, in his account, have to play a protagonist role in funding projects that provide training and support in transitioning to more sustainable activities. He mentioned a project executed by a transnational environmental NGO, The Nature Conservancy, as a leading example being put into practice in partnership with Ibama at the time of the interview.

There are alternatives; we have very interesting pioneering work done, for example, by TNC [The Nature Conservancy], which is an entity that operates in the whole of Pará. It works with us in Belém and the interior of Pará. They do pilot projects in several municipalities of São Félix do Xingu, for example, precisely trying to show profitable alternatives for the local population. The population, which traditionally practiced extensive farming, can now live with the forest in a profitable way. There are activities like this. These activities are long-term, they are permanent because they allow the person to stay on the same piece of land for decades, without ruining their livelihood. When information is passed on in a qualified way, with time and dialogue, these people, many times, do make a change in their way of life. They start to embrace these new sustainable cultures because they realize that they may even have some loss

of profitability at first, but later they will have a gain. This gain will be permanent because today the farmer lives off, he is practically nomadic. The farmer lives off of the acquisition of an area, he buys an area. That area, within three or four years, no longer has any fertility for the grass, so sometimes they go to plant soy or something else. Then they destroy the fertility of the soil and go to another area, deforest another area, invade, burn it and start the grass again. This is also tiring for them, it's also exhausting, but they don't have any other information, they don't know how to do anything else. They were born and grew up doing this. Local politicians have knowledge, but they profit from it. The only ones who really make money out of it are real estate speculators and equipment owners, equipment sellers. Loggers, the ones who cut the wood, who raise cattle, who sell it, don't have much money, unless they are mega-landowners, huge farms, then they can make a good profit, a good quality of life, but the others don't. They live in poverty, need money, need all the time to move from place to place and always depend on rural credit lines. We need a change of mentality. This is impossible to do without public power. We need a government seriously committed to this. [...] We need the financial institutions and the banks to be protagonists in this. [...] It is really difficult for us to want to repress and punish the farmer who deforests if he doesn't know anything else in his life, he has never been given any other knowledge, he has never been explained the pros and cons of what he is doing in the long term. No alternatives were ever given. [...] We really have a lot to do in this respect. (Interview with an Ibama servant).

In addition to the excerpts above, which conveyed more general remarks on the challenges of fostering sustainable production, six interviewees enriched their replies with detailed reconstructions of real-life situations. Two of them framed their experiences with policies supportive of extractivism and agroecology in a positive light. The other four were less optimistic, placing little hope that the change of mentality needed to address the difficulties currently threatening extractivism and agroecology could occur in the short or middle terms.

Community empowerment, fixation in the territory and access to basic consumer goods

The first story was narrated by a servant of an environmental agency who grew up in a riverside açai extractivist family on the island of Marajó, Pará. In her words, Marajó is a true example of how extractivism can “save the Amazon” and “empower communities.” She mobilized the arrival of cable television, telephone, and internet in the households, along with the interiorization of higher education and the population’s fixation in the region (low inter-regional emigration) as indicators of a general improvement in the life conditions of extractivist families in Marajó. Although the state agency Embrapa later arrived in the region to organize networks for the dissemination of social technologies among extractivists, it was an American company that played at first a decisive role in the popularization of the product.

I take my region as an example, right? I am from Marajó. What was Marajó like before the popularization of açai? The riverside communities in Marajó are extractivist populations. If you want to know how extractivism can save the Amazon, just look at Marajó. If you go to all the houses in Marajó they have cable TV, telephone and internet. All of them. Because açai extractivism saved the population of Marajó. [The city] even has a university. My father was an extractivist who raised his children with a lot of sacrifice. We had to work and study. At the end of his life, when he passed away, my father had 9,000 hectares planted with açai. He came from nothing, from

below, he had nothing. Today even Embrapa is experimenting in my father's area, because he himself, by his own initiative, developed a technique to grow açai all year round. Embrapa went there and now disseminates [this technique], takes people there to take courses, to be able to disseminate it in other places. Extractivism can save the Amazon. But why did the açai boom occur in the Amazon? Why everyone, all of a sudden, started to get to know açai and to like it? Because a company, a foreign company from the United States had to come here to start popularizing it. It took açai to one place, then to another. Then other companies came and started to take it to the South and Southeast of Brazil. Açai was already a success in the United States. [This is why] the riverside population is [still] there, it didn't leave, it didn't come to swell the city, the municipalities empowered themselves, put the schools to work, the children are there studying. I have already heard they are creating a nucleus of a federal university in Marajó, so people are going to go to college there. Take the example of Marajó and you will see what the empowerment of the extractivist population is. (Interview with an environmental servant).

The second narrative was brought by a former employee of the Ministry of the Environment who comes from the region of Santarém, Pará. She reported her perception of the agroecological cocoa production in the municipality of Medicilândia, in Pará. The family of a socioenvironmental activist killed in 2001 for denouncing illegal timber smuggling was mentioned as a model of sustainable family farming. They would be particularly exemplary in deploying technologies that are “organic to the family,” in the sense that it is the family members who control the technology, not the other way around. Other positive standards mobilized by the respondent to make sense of the family’s success were access to higher education and consumer goods sold in the city, combined with their fixation in the territory.

Take, for instance, cocoa. In the case of the Transamazon, which is in the cocoa region, knowledge [about agroecology] helped the families to disseminate technologies to improve their crops. Medicilândia, for example, became the municipality that produces the most cocoa in Brazil. It is one of the most dynamic municipalities in this interaction of research and organic technical assistance from families to other families, making the process of knowledge dissemination among them. There is a family that is a good example of this, the family of [.], a farmer who led the fight against Belo Monte. Above all, he was always an innovative farmer. He visited rural family homes in France and established an ideology that the family farmer of the Transamazon could one day reach a French standard in relation to the technology being organic to the families, [in the sense that] the families dominate the technology. The children graduate from a university but still work on the land. He thought this would be possible and that the rural family home would be a model of education that would allow this. He was assassinated in 2001 in the struggle against Belo Monte and in denouncing the theft of wood from indigenous lands there. His family, his children, whom he left at the age of 12, continued in the agricultural activity. Now, 20 years after his death, I went there [to see] them. They are all [working] in sustainable activities. They are family farmers, with cars, you know, they are structured on top of cocoa, living on the land, interacting with the city, consuming things from the city, but having agricultural production, with good remuneration for that production, a better life. [...] [Family farmers] become more stable, less prone to the threats of deterritorialization, when they are more capitalized, have more diversified agriculture, and have a relationship with the market based on products that have a better remuneration: cattle, pepper, cocoa. (Interview with a former high-level employee of the Ministry of the Environment).

In contrast to the two interviewees who reported as successful the experiences of Marajó and Medicilândia, four other respondents stressed instead the enduring difficulties in increasing the economic feasibility of agroecology and sociobiodiversity products. Limited local demand, high seasonality, small scalability, and low liquidity were some of the problems depicted in the real-life situations reconstructed by the interviewees.

Limited demand, seasonality, small scalability, and low liquidity

The subsequent fragments were narrated by two environmental servants who worked in Acre, in close contact with pioneering rubber extractivist reserves. They open up a window to many frames of thought subtending the phenomenon of “grassification” (*pecuarização*) of Acrean extractivist reserves, a topic that has received increasing scholarly attention.³⁶⁹ The first excerpt was provided by a servant who moved from São Paulo to Acre to work with socioenvironmental governance in the early 2000s. It tells the story of the last rubber tapper resident in a famous extractivist reserve who still resists taking part in ranching. The tapper’s neighbors, according to the respondent, ridicule his “puritanism” by pointing out his connections with the Workers Party, which allowed him to occupy positions in local governmental stances and maintain a source of income independent from production. In the community, cattle ranching is linked to security, stability, and liquidity. Cattle paid for the emergency health treatment of children from the community, and the day came when the rubber tapper’s own son voiced his desire to raise cattle within the family’s property. The extenuating physical effort required to extract rubber and nuts, the high seasonality and small scalability of harvests collected from native trees, and a continuous dependency on public subsidies given the current low market prices were factors that, in the interviewee’s account, encouraged the transition from extractivism to cattle ranching within the reserve.

I visited recently the [...] rubber plantation in Acre. Marcos [fictitious name] is the only rubber tapper there that doesn't put out to pasture. He doesn't have any pasture. Then his neighbors who have pastures say: ‘ah, Marcos doesn't have pasture, but he earns money working for the government.’ Because he was always very active with the Workers Party governments in this policy of community forest management. And his wife was a teacher, so she had a salary. He also worked for the government and had a salary. So he had no pasture and defended community forest management, the practice of rubber tappers, this way of life. Then Marcos’ son, who was a child when I last went there, turned 18. They live in a settlement and the son wants to start working for himself. Marcos’ son wanted to clear the forest to raise cattle. He wanted to marry, to have his own house, to have his own cattle. Marcos was so radical that he said: ‘not

³⁶⁹ See, for instance, HOELLE, Jeffrey. *Rainforest Cowboys: the rise of ranching and cattle culture in Western Amazonia*. Austin: University of Texas Press, 2015; PRADO, Gabriela; RIBEIRO, Helena. Pecuarização na Amazônia e Consumo de Carne: o que está por trás? *Saúde e Sociedade* 20(3), 2011, pp. 730-742; KRÖGER, Markus. Deforestation, cattle capitalism and neodevelopmentalism in the Chico Mendes Extractivist Reserve, Brazil. *The Journal of Peasant Studies* 47(3), 2020, pp. 464-482.

here. I will help you buy land in the settlement where you can raise cattle, but not here.’ But Marcos is the only rubber tapper I saw doing this. There is a practical dimension to life. Times have changed. Extracting latex requires a great physical effort. You have to walk 15 kilometers twice in one morning; the latex is smelly and so on. Then you are dependent on subsidy policies because otherwise the price is ridiculous. People will laugh at you, because you are investing in an activity that is not as economically advantageous as it was in the past. Cashew nut maintains itself because the price is getting better and better, as people are finishing with the cashew nut groves. But the cashew harvest is only in December and January; then it's over. Imagine someone who grew up in this context, who had latex, cashew and so on. Cattle became a reality. If you have cattle, you have liquidity. Marcos' brother-in-law saved his son's life by selling 18 head of cattle and going to the hospital to treat his son in Maranhão. There is this practical dimension of how money circulates where they live. Cattle come in very strategically, because you don't need to have pasture, you don't need to have fences, you don't need to have cattle. If you have a piece of land that has forest on it, you can borrow money to deforest, plant grass, dry it out, get a contract to raise someone's cattle and then you get 30% on the calves. The struggle of Chico Mendes' movement was not for the forest itself, it was for the forest that was on top of the land. It was a syndicalist movement struggling for land. Forest came later because it was part of the material basis for the survival of that group. Mary Allegretti and company managed to sew this alliance well. Chico Mendes very skillfully managed to, let's say, amplify the discourse. But he was a union leader whose main function was struggle for land. The *empates* [famous blockades organized by Mendes] aimed at protecting the forest that was on top of the land. Taking a pragmatic reading of it, the issue was the land. [...] Marcos once received a demand from a buyer from Germany, a businessman who was going to buy tree bark from him. He asked if Marcos could supply it. Marcos said: ‘I can supply it, for sure. There is forest, we have this material there.’ [The buyer said] ‘I want 15 tons a month.’ [Marcos replied:] ‘Send me BRL 5 million, I will start planting this area and in ten years I will supply you with 15 tons.’ If you want raw material on industrial scale, you need to have a public policy to produce it on industrial scale. It is what happened with rubber. Planted rubber trees produce on industrial scale; native rubber trees are very hard to produce on industrial scale. [...] But to deal with the traditional population, to guarantee that the traditional population can maintain their way of life, you can't do it based on how you do it with raw materials that come from somewhere else. It is different, it is much more expensive and then, from the market point of view, I think that it is not even worth having [.]. [...] When it comes to execution, we come up against reality. Romanticism goes away. (Interview with an environmental servant).

The next excerpts were provided by an environmental servant who, besides directly working with extractivist communities, was born and raised in Acre. His answers were the most heavily marked by disappointment, frustration, and disbelief toward extractivism. He lamented how easily the younger generations of residents in the reserves forgot about the rubber tappers' legacy, enthusiastically embraced cattle ranching, and openly sheltered invaders. “Those who depend on the territory, on the resources offered by the reserve, are trying exactly to destroy it.” “People do not value my work; why should I risk my life for it?” “I feel useless, because I know that people who destroy [the forest] sometimes come from here, Acre. They are destroying their own history, under the incentive of people who come from the outside, imposing models that are not ours.” “When we fine the guys doing these absurdities, the population itself is the first to come out in defense of these scoundrels.” “Many communities are accepting the entrance of invaders because the invader is a freighter, so they see an

opportunity to pay less to have access to transportation to and from their homes.” “I’m not going to get myself killed for a unit that almost nobody has an interest in taking care of. [...] What I try to do is just delay [destruction]. I don’t believe anymore that the reserve has a way back, to be honest. For me, the thermometer is the social thermometer.” “The own population is alienated about the importance of the reserve. I don’t have good news, good impressions about that.” He went further:

In 2009, a survey was done [in the [.] extractivist reserve] of who claimed to be cattle ranchers and who claimed to be extractivist. 15% claimed to be cattle ranchers. In other words, they had certainly already abandoned their identity with the forest; they were more like cattle ranchers. In fact, this conflict always existed inside the reserve. [...] Ranchers who couldn’t stay within the reserve territory went to the outskirts and started to seduce people into raising cattle, which we call ‘cattle for short,’ or renting pasture. Or somehow they sneaked into the reserve, either by renting pasture, or even buying ranches, today this situation is very blatant, or sponsoring deforestation. Like: ‘if you are willing to open up 50 hectares, I’ll give you the gasoline, the chainsaws, and the cattle, we’ll deduct the expenses over time and you’ll pay it back to me.’ [...] Since 1970 there has never been a single day without incentive for cattle ranching. If I go here and want to buy a Hilux and have nothing, no house, nothing, but have 100 head of cattle, I can get a loan from the bank, I can get all the benefits. Now, if I say that I have 1000 chestnut trees, each producing ten cans, therefore 10,000 cans, each being sold for BRL 50, I will have BRL 1 million as a guarantee for each harvest. I arrive at the bank; they will ask me: do you have cattle? No. So unfortunately we won’t finance your activity. Financing for ranching has never stopped and there is no support for [extractivist] activities. The project for ranching [exists since] 1970. The project for extractive activities is what we call ‘chicken flight:’ it lasts at most two years and when the business starts to grow it is time to end the project because there are no more resources, the project is already over. Then it ends, creating just a bubble at the moment. Suddenly this bubble explodes like a soap bubble, it becomes nothing. A lot of money is invested but not in something continuous, long-term. It is always one or two years. (Interview with an environmental servant).

At this point of the interview, I asked him if the projects supported by the Amazon Fund in the extractivist reserves about which he was knowledgeable would also suffer from this “chicken flight” logic, of receiving an injection of money for a very short time and then being only loosely followed up until complete discontinuation.³⁷⁰ His reply provided more details about the execution of three specific projects within the reserves: one aimed at extracting timber, the other at building a wood bats factory, and the last one at installing fish tanks. He also commented about strategies pursued by local politicians to strangle competition and lower the price of the Brazilian nut, to favor determined cooperatives and prevent the product from becoming more economically attractive than cattle ranching.

Projects that come with two years of execution have no way of escaping being a ‘chicken flight’ project. It seems that it’s going to get better, but when it’s time to finish

³⁷⁰ A similar problem regarding community-based socioenvironmental projects was identified by Edviges Marta Ioris in her analysis of the PROMANEJO program, an initiative funded by the PPG7 in the 1990s. She studied a project implemented in the Tapajós National Forest. Cf. IORIS, Edviges Marta. *Uma Floresta de Disputas: conflitos sobre espaços, recursos e identidades sociais na Amazônia*. Florianópolis: Editora da UFSC, 2021, p. 194-224.

the project, it plummets. The [extractivist] association gets into default, [their members] go to another project to see if they can get the association out of default so they can compete, and then it snowballs. Some projects worked more or less well, but a differential policy, let's say, a policy that would work, a structuring policy, didn't come. I always say that these projects that came, most of them are for improving the harvest and offering the market a quality raw material, not the final product. There is no investment in this sense. It is always adding value to raw material, to have better latex, a selected nut. But it doesn't produce, for example, a nut candy, processed nut flour, something more elaborate. For example, in the logging project in the [.] reserve, they wanted to extract timber. But no project comes out, for example, to make furniture certified by the community itself, even [to be bought by] public organs. A public policy of acquiring furniture from management plans would already [provide] a final material to compose the furniture of public organs. You have here a region very rich in wood, [but instead public organs] buy in stores here the MDF [lower quality compressed wood], which lasts 2 years. These are the things I criticize.

What we notice here, for example, regarding the Brazilian nut, which is the product that perhaps has the largest organization, let's say, of the residents themselves, to produce and deliver. But they are hostages of the cooperative [.] Any attempt to set up a new cooperative is quickly strangled. [...] Usually the cooperative is actually a company disguised as a cooperative. For example, the quota share, the profit on sales, never goes back to the producer. It is always reinvested in the structure of the cooperative to increase, increase, increase capital. This is not a cooperative in my view. [...] There is no concern about producing a final product with added value. All that comes out is the raw product. [...] If there were a truly structuring project, to really give these people a certain commercial independence... Even when the price of the nut is interesting, one day or another there is a political intervention and the nut price will fall, as has in fact already occurred. It was about 6 years ago that the Brazil nut was sold here for over BRL 50 a can. Then this sequence of facts happened. There was competition from Peru, Bolivia, and the cooperative to buy this nut. One week, one offered 110, then the other offered 120, the following week the other already 130 and people were beginning to have a real gain with the extractive product. Then what was done? They started to make it difficult, even to put up police barriers and punish the people who were selling Brazil nuts outside of Acre. At that time, there was even a member of the state legislature who suggested that the nut should no longer leave the state in natura, it had to be processed. But processed where? That was the question. Processed where? Because then the extractivist would be tied to sell to the cooperative or a local company and no longer sell to the competition, wherever they were getting better pay. And then Peru and Bolivia left the scene. The Brazil nut price went down again, to BRL 30. When things start to work out, there always comes a joker to maintain the status quo. Inventing some legislation, something to tie the producer to the cooperative again, so that he won't choose who he sells to.

For example, that wood bats factory in [.] that went bankrupt. It was given as a guarantee that the wood would come from the [.] reserve. They just forgot to agree with the British that the [.] reserve has a rule for wood to come out. Then, when they saw that the rule was incompatible with the objective of the wood industry, they started to put pressure on the unit's management to change the rules, to adapt to the project that was elaborated. It was not a project that was made, let us say, consulting how the [.] reserve worked, but the opposite. 'We do the project here, see what is going to happen and then put pressure to change the rules of the reserve, to harvest timber whenever we want, in whatever way we want.' The pressure was very much on this. I know this because I was the [.] during this period in the [.] reserve and people from the [.] kept pressuring me to hold a meeting so that they could approve a forest management plan to remove timber from the reserve. They paid all the staff expenses to hold this meeting and be able to get things going. I said 'no, it doesn't work that way.' I refused to do it.

[Another] example: the issue of tanks in 2013, 2014, 2015. International resources came to make some tanks inside the reserve and the [.] area within the forest

management plan. People were interested in producing fish in some areas. An analysis of the locations was done and it was defined where the tanks were going to be built. Suddenly, when it was time to execute the project, the tractor driver arrived and said 'no, it won't be here, it will be there.' Because they would spend fewer tractor hours. [...] In some tanks, where there was supposed to be water, there was grass. I don't remember the percentage, but it was close to 90% that were damaged. Then there was a meeting with people from the United States who came to point out this issue of the project, and I told them the truth. People got mad at me, they were very angry with me for having exposed the truth in the meeting. The tanks were actually malaria breeding grounds, the ones that had a little bit of water. Most of the projects coming to the reserve are at this level of responsibility. Resources come from the IDB [Inter-American Development Bank] to build a well. 'It is done, close the file, ok, the project is over.' The audit comes, 'there is a hole, there is a little water, it is done.' We don't ask ourselves if that hole made in the middle of a pasture was useful or not for the residents. How many had this concern? Extractivist projects are to meet numbers. Projects for cattle ranching are for other purposes, to say 'cattle ranching is working, look how good it is for the Amazon.'

In his account, therefore, projects for extractivist reserves would be rarely designed to add value to raw materials and often executed without much zeal, as the audit reports end up being more concerned with "meeting numbers" and registering little detail. Nature's timing is seen by the buyers as an inconvenience that can be circumvented by pressuring the unit's management. Distributive tensions between supply chain tiers already surfaced in the most organized sociobiodiversity productive chains, such as the Brazilian nut. Interests of cooperatives and extractivists do not always converge, the former being able to activate political connections to guarantee its profitability by restricting the latter's sales channels. Cattle ranching, in contrast, is favored by an abundance of funding and high local demand:

Cattle ranching is heavily subsidized. I remember that after Operation Weak Meat³⁷¹ the state government gave tax exemption for a while so that the meat from Acre could gain competitiveness abroad. Now I ask: which tax exemption was given, for example, for the chestnut to gain markets with a better price? Has there ever been a time in history when an extractive product was not taxed? No. There are different treatments that push the reserve residents to go to the easier side, which is to deforest. There are already financiers in the bank, there is already my neighbor who finances, there is already the cattle breeder. There is no lack of financiers. When I open my mouth and say 'I am going to make 50 hectares of pasture, who will give me the money to deforest, who will give me the cattle to raise?', there is already a queue of candidates offering it. [...] If I produce beef, I can sell it to any location in the municipality, or sometimes even within the community itself. I sell the meat without much effort. The extractive product locally has no outflow. For me to add value to extractive products, I have to access the external market. For example, if I go down to my house I will find Brazilian nuts, I must have some here. Copaiba, I have copaiba here. I don't even have to buy it, because people give it to me. Whoever lives in Brasileia, Xapuri, Assis do Brasil usually has a tree within the reserve. So it is impossible for these products to be sold in the municipality, because they already have easy access, sometimes even for free; they have relatives or even an area inside the reserve. Rio Branco [Acre's capital] doesn't have a consolidated market for these products. So [extractivists] are

³⁷¹ Operation Weak Meat (Operação Carne Fraca) was planned and executed by the Federal Police without the involvement of environmental agencies. It investigated the payment of bribes by slaughterhouses to health inspectors so that products without sanitary conditions could be sold in the market. BBC. Carne vencida e mascarada com 'produtos cancerígenos': o escândalo que atinge as maiores empresas do Brasil (São Paulo, 18 March 2017). Available at: <<https://www.bbc.com/portuguese/brasil-39313589>>. Accessed on 18 July 2020.

automatically forced to depend on the international market or on companies from the south of the country. But for this, they would have to have cooperatives, a guarantee of delivery, a larger productive organization, a larger quantity of producers. [...] For an agroforestry system, it would be much more profitable if there were a company, or an industry to absorb it. But the projects are exactly to suffocate these initiatives because they certainly start to compete with cattle raising, something that the politicians don't want. Parliamentary amendments³⁷² come to the reserve for several things. No budget comes to foster productive production in a situation of adding value to the final product. The projects and resources that come are for the exploitation and extraction of raw materials within the unit to take to the market, to commercialize the reserve and also to commercialize cheap labor. (Interview with an environmental servant).

The next statement was made by a former high-level employee of the Ministry of the Environment who coordinated PPG7 for some years during PPCDAm's implementation. His skepticism about the efficacy of state interventions in stimulating a transition to bioeconomy nearly equals that of the interviewee above. He considered all previous attempts to foster sustainable production in the Amazon "a history of failure," whose main "deficit is still the difficulty to add value." Differently from the previous respondent, however, he didn't see the pathway forward as channeling more public subsidies and incentivizing more demand for Amazonian products. Conciliating the higher seasonality and slower production rhythm that is intrinsic to forest products – timber being the sole example he mobilized – would rather require a certain restriction to luxury markets. The factual situation of radical income concentration in today's global economy would guarantee the existence of a number of consumers able to remunerate Amazonian products with extraordinary prices.

The other alternative, much talked about in all the zoning and development plans of the PPCDAm, was sustainable production. Sustainable production is a failure in the Amazon. History of failure. I was the coordinator of PPG7. PPG7 had a very strong sustainable production component. A lot of money was channeled by the World Bank to actions, for example, productive forest systems and other ways of using small areas with a combination of species, some high-value species. It doesn't work. It works here and there; you will find one or another. There is a project in the North of Rondônia that became famous because it was a success. All this money from the Ministry of Environment and NGOs rained down there because the system worked. Later they found out that it worked because there was so much money raining down from the outside that it was a kind of subsidy for everything they did, but it is not competitive. In the region, and everybody knows this, what works is cattle raising. It is extensive cattle-raising that works well. It has different degrees, including very technologized ranching here and there, medium and large. But agroforestry systems do not work. Sustainable timber management, several have been tried. The Brazilian Forestry Service was created at the time of Capobianco to manage forest concession, so that the intact forests or the preserved lands could become a source of income. Amazonian forest essences are high-value essences. Mahogany, ipê, cumaru, it's hard wood, top quality. In theory, if this is done with sustainable management, the forest doesn't suffer at all. The tree is born, dies, and falls by itself. Before it falls by itself you cut it down in a reasonable amount, letting the daughter trees, which are already growing below, go up. You come back in 20 years and cut it down again. All of this makes a lot of sense, but it all went wrong. There is no sustainable forest extraction project that

³⁷² Parliamentary amendments [emendas parlamentares] are public budget resources indicated by members of the Congress for public purposes, usually related to the thematic and electoral interest of each parliamentarian.

works. I think that the deficit of this is still in the difficulty to add value. It really needs to be sold to very specific markets, the luxury market in Europe, you know? It has to be something for mansions. You want an ipê floor, which is wonderful, beautiful, [...] it's wood that lasts a lifetime. If you want ipê, you will pay 10,000 dollars per cubic meter, 15,000 dollars per cubic meter. You will pay very high because there is no other thing of this quality, it doesn't exist. Income in the world is so concentrated that there are enough markets to pay 20,000 to 30,000 dollars a cubic meter. Deep down, I think the bargain that has to be made is the following: what we want to demand from the Amazon is so stop producing extensive cattle ranching with so low productivity levels. An average of 1.4, 1.5 cattle per hectare is unacceptable. (Interview with a former high-level employee of the Ministry of the Environment).

The last statement was given by a rancher based in Redenção who for a while considered incorporating the extraction of Brazilian nut into his productive portfolio but gave up due to the activity's low profitability in comparison to cattle ranching. Like most ranchers I interviewed, he had a sharp calculating mind and reasoned fluently in quantitative terms. Arguments based on financial cost-benefit ratios popped up very naturally in almost all of his answers to my questions. Another common trait was a certain avoidance of speaking in the first-person, most likely to avoid admitting actions that he imagined would arouse my recrimination or reproach. This rancher in particular recurrently employed the subject "human beings" – as in "human beings knock nut trees down with a chainsaw and burn them in five minutes" – to refer to practices that, as he implied in other parts of the conversation, took place within his own farm. He praised with graphical details the beauty of a "35-meter-high Brazilian nut tree," full of "birds flying up and singing." "The nut tree, if you don't touch that region, will stay up for the rest of your life, it will last 500 years. Producing. And for you to see how God makes nature perfect, when the nut tree is producing, if it's in a pasture, the cattle won't go under it." He demonstrated awareness of the forest's value, especially in light of the reduction of biodiversity in other places of the world – in this regard, he substantially differed from the other ranchers interviewed. The majority mentioned the destruction of biomes in other countries not as a counterexample to be averted but as a model to be followed. His atypical sensibility, however, was not enough to make him consider holding back the opening of new pastures.

If you have 300 bushels [*alqueires*] of land and 30 trees per bushel, that's 9,000 nut trees, let's put 10,000 trees. These 10,000 trees per year will give you an income of about BRL 350,000 per year. What does the human being want to do? Human beings say no, I'm going to cut down these 300 bushels, I'm going to finish everything here. It will become just pasture. I'm going to put 3,000 cattle in here. For him, seeing the cattle in the pasture is better than seeing a tree standing. For him, it's much more profitable. He says that bushes don't fatten cattle, grass fattens cattle. So you see how human beings are. He knocks down a nut tree like that, something that has been there for 500 years, he finishes it in five minutes. The fire comes, knocks it down, burns everything, it's over in five minutes. To put grass. [...] The farmer, if he has 300 bushels, if it is only forest, wants to cut down 300 bushels of forest to raise cattle. This is indispensable. He wants to do this and he does it. Whether he is authorized or not, he does it. I know many people who do it here. Now, they want to compare Brazil with other countries abroad. Because the countries out there, for 100 years, have been

suffering the consequences of this and everybody has seen it. [...] A human being comes and chainsaws a tree that is 35 meters high, the most beautiful thing in the world, that you see those birds fly up there almost 40 meters high, singing. You are a girl used to living in foreign countries that don't have this, right? I don't know Germany, I don't know the countries abroad, only through television. Any person today who has never seen this is going to be happy. 'This I have never seen; it is the most beautiful thing I have ever seen in my life!' I mean, there are none in those foreign countries. [...] Then a human being goes there with a chainsaw, cuts them down, sets them on fire, and it's all over. Those nut trees, when you chainsaw them to the ground, a lot of water comes out of them. People say that the tree cries, that water spills just like we cry with tears in our eyes. [...] Foreign countries are showing us what life would be like in Brazil today, especially in the Amazon basin region, with the question of illegal deforestation of the forests. If we don't take care of our country, 20 years from now it will be like other countries abroad, there will be tornadoes, water shortages. (Interview with a cattle rancher from Redenção, Pará).

Sewing together the multiple perceptions of the interviewees, we can list the following factors that hinder the strengthening of sociobiodiversity supply chains:

- Low market prices: many forest products are still very poorly remunerated;
- Limited local demand: because locally abundant, some products have few local buyers;
- Strangling competition by vested interests in other activities: actors involved with cattle ranching raise regulatory barriers to strangle competition and prevent market prices from rising;
- High seasonality: the harvest of some products only happens in specific seasons;
- Small scalability: some species are not “domesticated;” harvest happens on small scale;
- Low liquidity: banks and financial institutions often do not accept stocks of forest products as guarantee or collateral to secure loans, while they accept cattle;
- Lack of industrial infrastructure: raw commodities as a rule are cheap; vertical processing value-adding requires more long-term investment in industrial infrastructure;
- Extenuating physical effort: extraction and harvest are not very much mechanized;
- Insufficient funding: mainstream commodities have been heavily subsidized for decades, it will take time and more money for the same to happen with forest products;
- “Short-term contract” logic of Amazon Fund: community-based projects destined to solve these problems are mostly short-term (2 or 3 years), which is not enough to build new successful supply chains and restructure the economy of an entire region.

The means suggested by the interviewees to overcome these difficulties vary according to the product in question, as well as to the level of public subsidy they considered ideal or necessary for the market to function adequately. When it comes to agroecology and one talks about a diversity of organic fruits and vegetables, there is little doubt that local consumers living in Amazonian or other Brazilian cities could play a decisive role in heating demand. The challenge then is to make this high-quality food arrive at affordable prices at the families' tables, a task that calls for public subsidies and purchase programs. When it comes to sociobiodiversity

products such as the Brazilian nut, whose regional abundance ends up making local markets saturated for them, the puzzle seems to be connecting producers with interested buyers from outside producing regions, while at the same time adding value to the raw commodity. As for timber, besides suggesting it should be transformed into furniture by local manufacturers, two interviewees advocated for opposite commercialization options: one proposed a more structured public procurement policy (for state organs to furnish their buildings and rooms), another conjectured about the potential positive effects of redirecting rare essences to luxury transnational markets (so that conservation is remunerated by the super-rich).

In any case, the dilemma of scale persists. Nature's rhythm seems to be incompatible with industrious mass consumption, and species domestication can become indistinguishable from monocrop plantations, as the ecosystem's natural heterogeneity is gradually replaced by homogeneous cultivations. If sociobiodiversity products resist large-scale replication, how can we promote their economic viability by universalizing instead of elitizing their consumption? While this question has not been properly answered yet, posing it can help us to better formulate some of the terms in which the challenge of fostering bioeconomy is framed.

Table 6: Interviewees' perceptions on policies to foster sustainable production

Type of actor	Problems	Prospective
NGO representative	PPCDAm's axis of sustainable production was not fully implemented; implementation requires more funding	If duly funded and implemented, policies to foster sustainable economy can produce significant change
Former employees of the Ministry of the Environment	Credit lent to sustainable production under PPCDAm was insignificant in comparison to credit lent to agribusiness; consolidation of bioeconomy in national GDP requires more funding and time	Increasing credit to sustainable production and decreasing credit to agribusiness can lead to structural changes. Relevance of agribusiness in national GDP was only achieved through subsidy; if it succeeded, bioeconomy can succeed too
Ibama servants	Deforestation rate of 4,000 km to 5,000 km ² per year is the limit of what can be achieved with command and control; going further requires transition toward sustainable economy. Local politicians, speculators, and equipment owners profit from predatory activities and oppose incorporation of new standards	With policies to strengthen sustainable economy, low deforestation rates can be sustained in the long-term. More funding can generate income alternatives for communities dependent on mining and logging. Small ranchers have low profits and suffer with the nomadism imposed by extensive grazing; with training and support they

		embrace sustainable initiatives that fixate them on the land
Servants of other environmental agencies	Projects for sustainable production are short-sighted and restricted to producing high quality but poorly remunerated raw material; cooperatives of extractivist products coopt local politicians to keep down prices paid to producers; cattle is more easily accepted as bank loan guarantee and more easily sold in local markets; ranching is sponsored by multiple official and unofficial sources	Extractivism can successfully empower communities; açai in Marajó and cocoa in Medicilândia resulted in arrival of basic goods such as telephone and internet in the households, interiorization of higher education, and fixation of the population in the region. It deploys technology organic to the families. Industrial scale requires policies to produce on industrial scale. Community-based extractivism is more expensive, its economic feasibility depends on niches. Local industries to absorb and add value to raw material along with public procurement ignite structural change
Former coordinator of PPG7	Attempts to foster sustainable production in the Amazon failed due to the difficulty in adding value	Given the higher seasonality and slower production rhythm that are intrinsic to forest products, their consumption should be restricted to luxury markets
Cattle rancher based in Redenção	Ranching is more profitable than extractivism from a producer's point of view	People who are not used to biodiversity tend to value it more

Source: own elaboration based on interview transcripts.

5.2 Executive vs. legislative branch: veto powers of congressional supermajorities

In addition to the difficulty in encouraging sustainable production, a factor that more immediately appeared as curtailing PPCDAm's efficacy during its implementation under the Workers Party, one can identify a second element that hindered the policy's resilience, which took its toll during the political transition to the Bolsonaro government: a preponderant reliance on executive orders instead of legislative bills. From PPCDAm's founding document (Decree No. 3/2003) to the rules operationalizing the territorial and environmental management of indigenous lands (Decree No. 7,747/2012), from the listing of priority municipalities (Decree No. 6,321/2007) to the densification of hypotheses for destruction of equipment during inspections and extension of liability to upstream and downstream supply chain actors (Decree No. 6,514/2008), the legal armature structuring the action of institutions responsible for the implementation of PPCDAm was almost entirely composed of norms produced by the

Executive branch, with little or no involvement of the Legislative. This assertion, though, stands in need of qualification.

In at least six moments, PPCDAm's documents planned the drafting of legislative statutes regarding socioenvironmental matters and their submission for deliberation in Congress. PPCDAm's formulators considered it important to pass a bill regulating article 20 of the Constitution, further detailing rules on undesignated public lands. They also wanted to transform unauthorized removal of native vegetation covering public lands in the Amazon into a specific crime, in addition to the ones already established in the Environmental Crimes Act (Law No. 9,605/1998). A regulatory framework for the concession of public forests for sustainable management was also among the projects demanding congressional approval that were deemed essential by PPCDAm's architects. They equally registered the importance of making a political effort to approve in Congress a permanent funding mechanism for sustainable production, benefiting state governments whose territories have conservation units or demarcated indigenous lands (Draft Bill No. 351/2002). A new regulatory framework to better regulate the use of genetic resources and associated traditional knowledge was likewise signaled as a crucial output to be obtained from the legislative branch. Lastly, they indicated the necessity of drafting and sending to Congress a bill creating a national policy for payment for environmental services.

These six initiatives were not casually referred to in PPCDAm's documents but were incorporated as core activities, since production of norms was considered a "result indicator" and a "product" to be delivered by the responsible actors participating in the working group.³⁷³ At least four of these initiatives were successfully posited as law: the specific criminalization of deforestation in public lands (introduction of article 50-A into the Environmental Crimes Act through Law No. 11,284/2006); the Public Forests Management Act (Law No. 11,284/2006), the Biodiversity Act (No. 13,123/2015), respectively enacted in 2006 and 2015 after a relatively short time of congressional deliberation,³⁷⁴ and the National Policy for Payment for Environmental Services (No. 14,119/2021), finally enacted in 2021, after being stuck for 13 years in Congress.

Although an in-depth analysis of these statutes is beyond the scope of this dissertation, something of relevance for understanding PPCDAm's limitations is that all three pieces of

³⁷³ BRAZIL. PPCDAm fase 2, *op. cit.*, p. 118.

³⁷⁴ For an analysis of the legislative process preceding the enactment of the Public Forests Management Act see DE GÓIS, Susana Lena Lins. *Gestão de Florestas Públicas na Amazônia Legal* (Doctoral Dissertation) – University of Brasília, 2011.

legislation create economic opportunities rather than impose sanctions on private actors, a factor that partially explains why enough legislative consensus for their approval was formed in two congressional houses largely composed of representatives formally affiliated with the Parliamentary Agribusiness Front.³⁷⁵ Legislative drafts aimed at hardening enforcement or proposing substantial changes on the delicate topic of revenue distribution (such as Draft Bill No. 351/2002) did not find their way toward legislative approval during the period corresponding to PPCDAm's implementation. The Environmental Crimes Act (Law No. 9,605/1998) and the National System of Conservation Units (Law No. 9,985/2000) were enacted a few years before the negative agenda of command and control started to be taken seriously by federal agencies.

Important laws on urban policy with environmental implications (the so-called "brown agenda") were enacted from 2004 onward, such as the Federal Sanitation Act (Law No. 11,445/2007) and the National Solid Waste Policy (Law No. 12,305/2010), to give two sole examples.³⁷⁶ When it comes to statutes impacting deforestation control in the Amazon, besides the abovementioned Public Forests Management Act, the Biodiversity Act, and the National Policy for Payment for Environmental Services, which structured new economic opportunities for sustainable timber extraction, use of biodiverse genetic resources, and conservation practices rather than fine-tuned enforcement instruments, the most important piece of legislation enacted in the period was the New Forest Code (Law No. 12,651/2012). As we saw in the literature review, the new code is more often denounced as a setback than celebrated as a milestone. Despite having maintained strict conservation percentages for the Amazon region and created new monitoring tools, it amnestied millions of hectares of past deforestation and suspended sanctions against producers who adhered to a pro forma regularization program under the responsibility of the states. Because of its ambiguous results, the code's revision has

³⁷⁵ The Agribusiness Parliamentary Front is one of the largest caucus in the Brazilian Congress. In the legislature of 2019-2022, it had 39 senators (out of 81) and 241 deputies (out of 513). *Cf.* FRENTE PARLAMENTAR DA AGROPECUÁRIA. Todos os membros. Available at: <fpagropecuaria.org.br/todos-os-membros/> Accessed on 9 November 2022.

³⁷⁶ For a comparison between advocacy coalitions involved in the legislative procedures of the brown and green agendas in the Brazilian Congress see ARAÚJO, Suely. *Política Ambiental no Brasil no período 1992-2012: um estudo comparado das agendas verde e marrom* (Doctoral Dissertation) – University of Brasília, 2013 and ARAÚJO, Suely. *Coalizões de advocacia na formulação da Política Nacional de Biodiversidade e Florestas* (Master Dissertation) – University of Brasília, 2007. An exception to the parliamentary reluctance to approve environmental laws with harder command and control rules was Law No. 11,428/2006, which created restrictions on vegetation removal in the Atlantic Forest biome.

been largely interpreted as a victory of the ruralist caucus and a defeat for the environmentalist coalition.³⁷⁷

I took this brief detour on the legislation preceding or enacted concomitantly with PPCDAm to make clear that the policy's package of presidential decrees did not emerge in a legislative vacuum but was nested within a dense web of statutes. Hypotheses for the destruction of equipment listed in Decree No. 6,514/2008, for instance, operationalized the provisions of the Environmental Crimes Act, which, in turn, gave concretion to the National Environmental Policy and the constitutional right to a balanced environment. Such "nesting," nonetheless, does not change the fact that the main innovations created in the scope of PPCDAm were introduced into the Brazilian environmental legal framework not through the normative vehicle of legislation, but of presidential decrees. Territorial and environmental management of indigenous lands, extension of liability for illegal deforestation to upstream and downstream supply chain actors, listing of priority municipalities, mandatory re-registration of rural properties in land agencies, all of these instruments were created by decrees, finding only mediate support in statutes voted by the legislative. This feature proved to be a decisive fragility in the transition from the Temer to the Bolsonaro government, as the latter extinguished all collegiate bodies within federal administration created by normative sources other than statutes voted by the legislative. With the stroke of a pen, the entire edifice of PPCDAm, incrementally built during 16 years by a manifold of actors and organizations, was demolished.

To probe the reasons why PPCDAm's formulators ended up relying primarily on presidential decrees and did not advance much in establishing stronger command and control instruments through statutes, the interview guides included a question about the topic. It was phrased more or less in the following terms:

We know it is more difficult to bring issues regarding command and control against deforestation to the Legislative. You managed to build a very sophisticated framework within the Executive branch with decrees, ordinances, provisional measures. But then the government changed, and Bolsonaro's cabinet was able to destroy everything with great ease. It's a sort of dilemma: it is more difficult to give traction to change in the Legislative, but it is also more difficult to undo legislative changes once they are approved. How do you see this choice of normative types made during PPCDAm?

³⁷⁷ On the legislative procedures preceding the enactment of the New Forest Code see PERES, Isabela Kojin. *Conflitos nas políticas ambientais: uma análise do processo de alteração do Código Florestal Brasileiro* (Master Dissertation) – University of São Paulo, 2016; CUNHA, Paulo Roberto. *O Código Florestal e os processos de formulação do mecanismo de Compensação de Reserva Legal (1996-2012): ambiente político e política ambiental* (Master Dissertation) – University of São Paulo, 2013; ANACHE, Bernardo Mansur. *Instrumentos e perspectivas para gestão ambiental e territorial na Amazônia Legal: uma contribuição sobre análise de discursos na alteração do Código Florestal e criação do Cadastro Ambiental Rural* (Master Dissertation) – Federal Rural University of Rio de Janeiro, 2020; PEREIRA, Amanda Maria Campanini. *A lógica da ação na reforma do Código Florestal* (Master dissertation) – University of São Paulo, 2013; CARVALHO, André Luis Cunha. *Uma análise sobre mudanças graduais na legislação florestal apresentadas pela Câmara dos Deputados entre 2012 e 2020* (Undergraduate Monograph) – University of Brasília, 2020.

Besides the answers given by two political actors to that question, two other agribusiness actors spontaneously thematized in their replies to other questions episodes in which agribusiness associations they are affiliated with successfully managed to lobby against environmental legislative proposals. To extract the most meaning out of these four statements, we will connect the analysis with a wider (though still circumscribed) theoretical discussion about the use of presidential decrees in policymaking in Brazil.

One interpretation available in the literature might explain this conundrum of events – the rise and fall of PPCDAm through presidential decrees – as an unequivocal sign of the peril of instability compounded by Latin America’s *hyper-presidentialism*: a historical, path-dependent abuse of decrees by Latin American presidents resulting in the aggrandizement of the Executive branch at the expense of the Legislative and failing to build enough consensus to sustain long-term policies. A second interpretation, to some extent sharing assumptions with the hyper-presidentialist explanation, would read the preponderance of presidential decrees in the construction of PPCDAm as reflective of a “categorical agenda power” of the president, a characteristic of Brazil’s constitutionalism inherited from the military regime. This argument on the legislative dominance of the Executive is often discussed within the paradigm of *coalition presidentialism*. A third interpretation rejects the hyper-presidentialism model and its Brazilian variant of coalition presidentialism, proposing instead the notion of *pemedebism* to understand the dynamics between the executive and legislative powers and its implications for policy processes in post-redemocratization Brazil.

Next, we will go through the main features of the hyper-presidentialism and coalition presidentialism models and contrast their explanatory potential with the one offered by the pemedebism argument, ultimately aiming at illuminating the meaning of presidential decrees in PPCDAm’s policy architecture. This discussion will provide substrates to interpret the interview excerpts in a more consequential way.

a) Hyper-presidentialism

In the wake of the transition of many Latin American countries from military regimes to democracies in the 1980s and 1990s, there was a proliferation of analyses by constitutionalists and political scientists on the distinctive features of Latin American presidentialism. There was a general concern with a perceived loss of influence of U.S. constitutionalism in the world and a certain fear that the massive adoption of presidentialism

by Latin American countries throughout the 19th and 20th centuries could tarnish the prestige of U.S. presidentialism as a synonym for stability and a reference to other democracies across the globe.³⁷⁸ Worried that the succession of coups d'état that occurred in the subcontinent could be read as evidence of the inferiority of presidentialism in comparison to parliamentarianism, scholars became engaged in denouncing Latin American presidential systems as authoritarian deviations from the original, archetypical U.S. presidentialism.

Carlos Nino was one of the first authors to propose the idea of a Latin American “hyper-presidentialism.”³⁷⁹ He contended that a distinguishable characteristic of the region was “corporatism,” which he understood as the “exercise of enormous pressures upon legislative and administrative agencies” by “interests groups and organizations,” intending to obtain formal or informal “privileges and favors of various kinds,” in many cases amounting to “sheer corruption and illegality” and a “resistance to internalization of universal standards based on achievement and competition rather than on particular connections and status.” Differently from the United States, “the only stable presidentialist democracy,” Latin American political systems would have “strong parties and widespread popular participation,” features he considered “largely responsible for the functional difficulties” faced by Latin American constitutions. In the U.S., the danger of instability would be avoided due to “the weakness of the parties and the help of the electoral system,” which allows the president to be “able to govern even when supported by a minority faction” in Congress. Containment of corporatism would only be achieved through the adoption of a “mixed parliamentary presidential system,” designed to strengthen Congress and limit presidential powers.

Rett Ludwikowski took the argument of hyper-presidentialism in a different direction.³⁸⁰ To him, “the tendency of the Latin American presidential system to deviate into authoritarianism” was “well evidenced,” the question rather being the motivations for such disarray. In addition to a historical inclination of the Latin American military, Church, trade unions, companies, and bureaucratic elites to corporatism, corruption, and personalism, he attributes the deviation to differences in the way “colonists in both Americas [...] resolved their ethnic problems”. North American colonists would have retained their “English constitutional traditions” “during the struggle for independence” and “remained much more homogeneous

³⁷⁸ See ELKINS, Zachary. *The Weight of History and the Rebuilding of Brazilian Democracy*; *Lua Nova* 88, 2013, pp. 257-303.

³⁷⁹ NINO, Carlos. *Transition to Democracy, Corporatism, and Constitutional Reform*. *University of Miami Law Review* 44(1), 1989, pp. 129-164.

³⁸⁰ LUDWIKOSWKI, Rett. *Latin American Hybrid Constitutionalism: the United States Presidentialism in the Civil Law Melting Pot*. *Boston University International Law Journal* 21(29), 2003, pp. 29-61.

than their South American counterparts.” “The Iberian colonists,” on the other hand, “brought relatively few women with them,” which “resulted in a much stronger race mixture than in Northern America.” The “very specific blend of culture, races, religions, customs, languages, and legal traditions” in Latin America would have generated a political culture “relatively less mature than in North America,” “highly polarized,” devoid of “a functioning system of checks and balances,” “social consensus and maturity of political leaders,” and lacking a “mature political culture of the people, namely cultural foundations, traditions, instruments of social dialogue, developed systems of communication, and well-balanced emotions.” In his quite explicit sum-up: “presidentialism did not work well in this region not because the system is not fundamentally democratic, but because the Latin American societies were not prepared for its assimilation.”

A better formulation of the deficits of presidentialism was articulated by Juan Linz.³⁸¹ Differently from Nino or Ludwikowski, Linz did not ascribe the fragilities of the presidentialist model to the “political immaturity” or “tendency to corporatism” allegedly typical of Latin American societies. He centered his argument upon the problem of “dual democratic legitimacy,” which would be intrinsic to *all* presidential systems, including the United States: as both the president and Congress have a claim to plebiscitarian legitimacy and enjoy a fixed term in office, “no democratic principle exists to resolve disputes between the executive and the legislature about which of the two actually represents the will of the people.” This stalemate would end up being resolved with “recourse or threat of recourse to the people or nondemocratic institutions like the courts or – in the worst case – the military”, leading to a rigidification of democratic consociational strategies and uncertain and time-consuming processes of impeachment.

Since Linz’s formulation of the problem of dual democratic legitimacy there have been different attempts to qualify and reinterpret the idea of hyper-presidentialism. Marsteintredet and Berntzen,³⁸² who analyzed different types of interruption of presidential mandates in Latin America from the 1980s to 2000s (coups, impeachment, declarations of presidential incapacity, resignation, and resignation by calling early elections), detected a pattern that would suggest mitigation of the president’s fixed office terms, “one of presidentialism’s most serious flaws.” They argue that “presidential removals, congressional elections of presidents, and calls for early elections” can be described as “paraconstitutional practices” procedurally equivalent to the

³⁸¹ LINZ, Juan. The perils of presidentialism. *The Journal of Democracy* 1(1), 1990, pp. 51-69.

³⁸² MARSTEINTREDET, Leiv; BERNTZEN, Einar. Reducing the perils of presidentialism in Latin America through presidential interruptions. *Comparative Politics* 41(1), 2008, pp. 83-101.

flexibility exhibited by parliamentary regimes. Interrupted presidencies are thus celebrated as reflective of “new, strengthened horizontal and vertical accountability resulting from stronger congresses and street protests,” capable of checking on “strong, decree-happy presidents.”

Alegre and Maisely’s entry on hyper-presidentialism in the recent *Oxford Handbook of Constitutional Law in Latin America* follows a different reasoning.³⁸³ They sustain that Latin American presidential systems deviate from the archetypical U.S. presidentialism because they tend “to resolve the stalemate between the executive and the legislative by expanding even more the president’s powers, giving him or her an advantage in the day-to-day power dispute with congress.” This expansion would have resulted in exceptional legislative and non-legislative presidential prerogatives such as (i) extensive decree powers; (ii) direct constitutional authorization to legislate on different policy areas; (iii) exclusive legislative initiative in certain topics such as budget; (iv) authority to propose constitutional amendments; (v) partial veto powers over statutes approved in Congress; (vi) capacity to appoint and dismiss ministers without congressional approval; (vii) extensive emergency powers; and (viii) authority to intervene in subnational governments. They also contend that Latin American countries would find “‘informal’ ways of enhancing the flexibility of the presidential term of office”, such as unorthodox interpretations of constitutional provisions on impeachment. Crises that in a parliamentary system would be solved “via the replacement of a prime minister, the structuring of a new working majority, or the calling of new elections,” in the hyper-presidentialists systems of Latin America would frequently result in catastrophic scenarios marked “by economic and financial breakdowns, by the deterioration of social relations and by significant violence, even resulting in a considerable number of deaths.”

In Alegre and Maisely’s account, the deleterious effects of hyper-presidentialism would be compounded by “the biggest institutional challenge faced by the subcontinent today: the tendency toward illiberal democracy,” becoming “particularly problematic when combined with another trend in the region, populism.” Therefore, to avoid the danger of a “true monarch” distorting public deliberation, controlling the economy, over-expanding executive powers, colonizing the judiciary or dismantling control agencies, Latin American countries should “move from hyper-presidentialism to plain presidentialism; from a system where all power rotates around a single person, to a more balanced one, where judges and legislators [...] enjoy enough powers to relevantly discharge their institutional duties.” This would require the

³⁸³ ALEGRE, Marcelo; MAISLEY, Nahuel. Presidentialism and Hyper-Presidentialism in Latin America. In: HÜBNER, Conrado (ed.). *The Oxford Handbook of Constitutional Law in Latin America*. Oxford: Oxford University Press, 2022, pp. 381-393.

“adoption of rules and bodies protecting the independence of the judiciary, or the (still weak) power of control given to Congresses over the executive cabinet”. Another venue would be to proliferate “‘extra-powers’ like special offices for criminal prosecution and public defense, anti-corruption agencies, agencies controlling public services.” Their example of “extra-power” that “has provided some strong barriers against the authoritarian impulse” of presidents in Brazil are “anti-corruption judges,” who, in the authors’ opinion, are doing a good job by “shedding light on the structural problem of corruption.”³⁸⁴

Gargarella’s rendition of hyper-presidentialism in his historical reconstruction of Latin American constitutionalism stands close to that of Alegre and Maisley. He famously argued that a chain of episodic alliances between liberals and conservatives throughout the 19th and 20th centuries - formed to defeat more radical proposals of inclusion and democracy - established “the basis of a peculiar institutional system that, later on, Carlos Nino would characterize as hyper-presidentialist systems.” While adding the caveat that hyper-presidentialism does not necessarily imply disrespect of constitutional rights, Gargarella criticizes it for creating “imperial presidencies with an ample and growing capacity to act at will”; concentrating “too much power, too many responsibilities, and too many expectations in [the president’s] figure during a fixed term”; conducing to instability; increasing the risk of a return to authoritarianism; favoring powerful interest groups (as it would be “easier to exert pressure on one person than over a large group”); being more fallible (because there would be no “voices and mechanisms capable of forcing the Executive to think through its decisions twice”); and lacking “mechanisms of ‘check’ and ‘alert’ regarding the unconditional rights and interests of minority groups.”³⁸⁵

Despite the influence of these interpretations of Latin American constitutional history that tends to distrust presidents as potential tyrants, not all scholars who embrace the concept of hyper-presidentialism use it with a negative connotation. Cheibub, Elkins and Ginsburg³⁸⁶

³⁸⁴ ALEGRE; MAISLEY *ibid.*

³⁸⁵ GARGARELLA, Roberto. *Latin American Constitutionalism 1810-2010: The Engine Room of the Constitution*. Oxford: Oxford University Press, 2013, p. 150, 160-165, 217 (footnote 18).

³⁸⁶ CHEIBUB, José Antonio; ELKINS, Zachary; GINSBURG, Tom. Latin American Presidentialism in Comparative and Historical Perspective. *Texas Law Review* 89(1709), 2011, pp. 1707-1739. One could still question, however, if the ability of Latin American presidents to set the agenda differs much from that of U.S. presidents. In his classical description of agenda-setting processes in the United States, John Kingdon consistently argued that presidents dispose of specific resources to “dominate and even determine the policy agenda” such as veto, prerogative to hire and fire, and a more unitary decision-making. In his words: “No other single actor in the political system has quite the capability of the president to set agendas in given policy areas for all who deal with those policies.” One of his interviewees formulated the preponderance of the president in agenda-setting in a very explicit way: “Obviously, when a president sends up a bill, it takes first place in the queue. All other bills take second place.” KINGDON, *op. cit.* p. 23.

compared the constitutional provisions of executive and legislative powers in the Americas and concluded that a strong executive lawmaking power is undeniably a signature feature of Latin American presidentialism. Its main difference, when compared to the U.S., would be the presidency's ability to set the agenda through constitutional amendments and budget laws. The authors do not, however, condemn this stronger executive lawmaking power as proto-authoritarian, corporatist, or unstable. They rather suggest it reflects the need for complex and technical regulation, an exigency typical of the modern administrative state. Concentration of legislative powers in the president would be more apparent than real, as it hides a dispersion of decision-making authority within networks of bureaucrats and policy experts. Another advantage of policy-making processes in presidentialist regimes would be a clearer assignment of individual responsibility for policy success or failure. While Congress is often seen by citizens as "responding to myriad local interests," and consisting of a confusing "process of committees, vote trading, and negotiation across houses," presidents, as the only figures typically elected by a national constituency, are usually accountable to a wider citizenry.

As I read it, the argument that Latin American presidents display an autocratic tendency to expand their powers to the detriment of a weak and prostrated Legislative is grounded on two misleading assumptions. The first is an erasure of all the negotiations, bargains, commitments, and agreements that take place inside the governmental coalition between and within parties and give sustenance to the presidential mandate, arrangements without which no candidacy can win a national election and no president can neutralize the menace of impeachment. The Executive is not a unitary entity incarnated in the figure of the president but a composition of often contradictory interests of many actors and organizations. The second inaccurate presupposition that, in my judgment, makes it difficult to operationalize the hyper-presidentialism model in any meaningful way to describe the Brazilian reality, is an idealized view of the Legislative that ignores how congressional houses and parties are hierarchically structured. The Brazilian 21st-century Parliament is nothing like an assembly of notables but a highly centralized institution, in which party leaders have disproportionate powers to influence the legislative process and ensure discipline from individual representatives. If the hyper-presidentialism argument is correct and decree-happy presidents are standing in the way of well-intended legislators who, if granted enough power, would "relevantly discharge their institutional duties" and produce good social and environmental policies, one could expect to find counterfactual evidence of promising legislative initiatives that were asphyxiated by ever-growing "imperial presidencies." What we see in the case of PPCDAm, however, is the exact opposite: a successful public policy built almost entirely by

the Executive, and whose results represented a direct threat to the interests of the agribusiness sector entrenched in the Legislative.

The events surrounding the approval of the Forest Code provide a clear example of the multiplicity of interests composing the Executive, the limits of presidential discretion to dominate the agenda, and the enduring crypto-conservatism of the parliament in Brazil. The statute was not considered a defeat of the government, for congress representatives either affiliated or allied with the Workers Party voted in its favor. The code is rather seen as a defeat of the environmental coalition and the biggest personal loss suffered in Congress by president Rousseff herself. She used all means in her power to prevent the legislation from being approved to the point of threatening to fire all ministers of the PMDB if their party voted favorably to the proposal. It didn't work: the ministers mocked and defied her threat of dismissal, and PMDB congress representatives voted massively against the president's recommendation. Members of Rousseff's cabinet and environmentalist senators added some modifications to the text to lessen its ruralist bias during deliberation in the Senate, but most of their suggestions were later withdrawn by the House of Representatives.

The presidential prerogative to partially veto approved legislation was exercised by Rousseff as a last resource to reduce the scope of the amnesty granted by parliamentarians to their electoral base and themselves (the list of congress representatives charged with, or funded by individuals accused of, illegal deforestation, land grabbing, invasion of indigenous lands, and slave labor is not short).³⁸⁷ Pressured by civil society on the eve of the United Nations Conference on Sustainable Development (Rio +20), Rousseff vetoed 12 points and made 32 modifications to the final text, restoring some of the suggestions made in the Senate by the environmentalist coalition. For instance, the text approved by the Legislative had removed a minimum standardized percentage for the recovery of protected areas alongside riversides and top hills (APPs), leaving it up to the states to decide their percentages. The modifications introduced by the presidency brought the minimum percentages back, differentiating them according to property size.³⁸⁸

Although Congress can override presidential vetoes, the strategy chosen by the ruralist caucus to reverse the changes introduced by Rousseff was to propose amendments to the text altering the content of her modifications. This prompted a new round of legislative deliberation, during which ruralists and environmentalists agreed to diminish the length of APPs along

³⁸⁷ CASTILHO, Alceu. *Partido da Terra: como os políticos conquistam o território brasileiro*. São Paulo: Contexto, 2012.

³⁸⁸ PERES, *op. cit.* p. 87.

riversides in exchange for the re-inclusion of non-perennial rivers as protected entities. Rouseff again vetoed 9 articles of the bill, to minimize the impact of flexibilizing rules.³⁸⁹ Even with these mitigations introduced by the presidency, a part of the ruralist caucus still considered the statute quite advantageous to agribusiness. Its benefits to rural proprietors included amnesty to all illegal deforestation committed in small properties until 22 July 2008, reduction of legal reserve (RL) percentages under specific conditions, and suspension of sanctions against landowners, regardless of property size, who adhere to environmental regularization programs.

What this condensed reconstruction of the lawmaking process of the New Forest Code shows us, in my judgment, is that, at least in the environmental policy field, the relationship between executive and legislative in Brazil cannot be understood in terms of decree-happy, proto-authoritarian presidencies undermining the sphere of action of well-intended and qualified parliamentarians. When we look at normative production in environmental matters during the implementation period of PPCDAm, we see presidencies to a certain extent willing to tighten command and control mechanisms and a legislature whose majority is aligned with the interests of agribusiness and refractory to any change potentially resulting in economic loss to the sector. Presidencies somewhat inclined to take seriously deforestation prevention and control also encountered resistance within their own governmental coalition, which to achieve and maintain governability had to encompass both environmentalists and ruralists. This feature (importance of multiparty coalitions to the sustenance of presidential mandates), although overlooked by the hyper-presidentialism model, is a central interpretive key of the coalition presidentialism paradigm, to which we turn next.

b) Coalition presidentialism

Coined by Sérgio Abranches in 1988, the term “coalition presidentialism” has become ubiquitous in post-redemocratization Brazil to describe the use of presidential prerogatives to form parliamentary supermajorities supportive of the government’s policy agenda. Abranches’ original formulation³⁹⁰ emphasized the fragmentary, instable, and conflictual character of grand coalitions formed under this strategy. “Persistent and vigorous centrifugal forces” would permanently stimulate fragmentation, and the need for the presidency to constantly act as the

³⁸⁹ PERES, *op. cit.* p. 88.

³⁹⁰ ABRANCHES, Sérgio. Presidencialismo de coalizão: o dilema institucional brasileiro” *Revista de Ciências Sociais* 31(1), 1988, pp. 5-34.

ultimate arbitrator of internal disputes in the coalition would lead to the gradual erosion of the governmental alliance, at best, and the breakdown of the whole regime, at worst.

Upon returning to the topic 30 years later, Abranches added very few qualifications to his earlier model. Having survived three uninterrupted decades and admittedly enabled the emergence of important policies, Brazil's coalition presidentialism did not turn out to be inexorably instable, nor to promote chronic and cyclic ungovernability after all. Nonetheless, it would still lack more agile mechanisms of institutional mediation to solve stalemates between the executive and the legislative and be undermined by growing party fragmentation, a feature that would increase ideological heterogeneity within the coalition, reducing its probability of stability and favoring clientelism and corruption.³⁹¹

Despite its journalistic appeal, this depiction of presidential coalitions as excessively fragmented, heterogeneous, and instable has long been challenged by empirical research. Figueiredo and Limongi's³⁹² seminal work on the relationship between the executive and legislative in policymaking has provided evidence of the preponderance of the presidency's agenda over a Congress that is both willing to cooperate and organizes itself in a hierarchical, centralized and disciplined manner according to party rules. By negotiating cabinet posts and pork-barrel projects with party leaders and making use of its authority to issue decrees, propose budget law, suggest constitutional amendments, and initiate regular legislative processes, the Executive is able to exercise "categorical agenda power" over Congress. This categorical agenda power is expressed in dominance (between 1989 and 2017, around 76.6% of all approved matters originated from the president); high success rates (nearly 80% of all presidential proposals in this period were approved); and faster speed (the average processing time of executive bills was 271 days, while that of legislature bills was 965 days).³⁹³

Notwithstanding the high success rates of executive bills, Figueiredo and Limongi's data show that when government and party leaders dissent, congress representatives follow party leaders. The latter are endowed by the internal regulations of congressional houses with disproportionate power to influence legislative work. For instance, leaders can call urgency and force the fast deliberation of matters they wish to see voted on. They can also request a change in the method of counting votes: instead of counting the votes in favor and against in an

³⁹¹ ABRANCHES, Sérgio. *Presidencialismo de coalizão: raízes e evolução do modelo político brasileiro*. São Paulo: Companhia das Letras, 2018, p. 9-10.

³⁹² FIGUEIREDO, Argelina; LIMONGI, Fernando. *Executivo e legislativo na nova ordem constitucional*. Rio de Janeiro: Editora FGV, 2001.

³⁹³ GRIN, Eduardo José; ABRUCIO, Fernando Luiz. Hybridism as a national policy style. *Revista Brasileira de Ciência Política* 35(e234516), 2021, pp. 1-59, p. 13.

aggregate, almost anonymous way (parliamentarians who remain seated vs. those who stand up), they can demand each vote in a determined session to be individually registered. These prerogatives possessed by party leaders – in addition to intra-party powers that affect reelection such as distributing public funds for electoral campaigns and pre-approving candidacy lists – have proven to be outstandingly effective in securing party discipline and minimizing unpredictability.³⁹⁴

The conception that presidents enjoy unilateral decision-making power has also been contested by studies focusing on the role of subnational governments and civil society in policymaking. As Grin and Abrucio have argued, while it is undeniable that the presidency is the gravitational center of the Brazilian political system, in the first 30 years of Brazil's New Republic federation cooperation arrangements and participatory decentralization have been substantially strengthened. The authors highlight that, between 2003 and 2011, 82 policy conferences were convened, mainly by the executive branch. Councils for dialogue with social movements and society were institutionalized: in 2011, there were 35 national policy councils and 5 committees with societal representatives, in which society had on average 55% of seats and governmental officials, 45%. Public hearings were made mandatory by law in some cases, and participatory planning mechanisms began to be introduced. During the 2003-2007 multiyear plan, 27 social participation forums were held. Multiple arenas for federative horizontal and vertical cooperation and subnational participatory forums were created.³⁹⁵ Brazil's policy-making style between the two impeachment processes (1992-2015), in light of this data, would thus be characterized by *hybridism*, that is, a combination of majoritarian and consociational traits.

Adjusted to include the role of party leaders as a bridge between the president and congress representatives, on the one hand, and the introduction of participatory mechanisms involving subnational governments and civil society actors, on the other, coalition presidentialism advanced important ideas to understand the logic of decision-making process in Brazil's New Republic. By proving that presidents have instruments to induce cooperation from party leaders, who, in turn, are able to command allegiance from congress representatives in a predictable and structured manner, coalition presidentialism contested the image of dysfunctional, fragmentary, and unstable coalitions, and challenged the view of "imperial presidencies" devoid of checks and balances. It showed that Brazil's political system developed

³⁹⁴ FIGUEIREDO; LIMONGI, *op. cit.* p. 9-10.

³⁹⁵ GRIN; ABRUCIO, *op. cit.* 22-25.

a functional response to solve institutional stalemates deriving from presidentialism's problem of dual democratic legitimacy.³⁹⁶

The street protests in 2013, Rousseff's impeachment in 2016, Bolsonaro's election in 2018, and the disruptive character of his administration have prompted scholars to conjecture about the limitations of the explanatory potential of the coalition presidentialism paradigm. The challenge posed by these political events is not exactly to prove the model wrong. The fact that nearly 80% of all presidential proposals in the first three decades of the New Republic were approved is of great significance and is not under contestation. What the political developments of the last 10 years in Brazil call for is a shift of focus, in an attempt to shed light on the thorniest matters around which no consensus within governing coalitions could be found. An approach oriented to identifying mechanisms of coordination, compromise, and discipline can end up overlooking the mechanisms of postponement and non-resolution of the most conflictual issues that, if brought to the surface and forced to a decision, could lead to the collapse of the coalition. It is these issues that provide the key to understanding the limits of coalition presidentialism and the new political configurations taking shape from 2013 onward.

c) Pemedebism

An alternative interpretation that seeks to address some weak spots of the coalition presidentialism paradigm is proposed by Marcos Nobre. Nobre's core argument is that the logic of coalition formation that prevailed from 1988 until 2013 can be better understood as a "hierarchical system of vetoes" oriented to obstruct any concrete transformation in the patterns of distribution of power, income, and social recognition, imposing a slow and controlled pace on democratization and the fight against inequality, and preventing a worsening of the relative position of ruling groups. He called this system "pemedebism," in memory of PMDB (today shortened to MDB), the party that led the crypto-conservative legislative cartel for the longest.

The "most general and striking characteristic" of pemedebism, Nobre contends, is physiologism: to conquer space in the pemedebist condominium it is imperative to be in government, whatever the government and whatever the party one belongs to. The fundamental advantage of being part of the supermajority is not the possibility to propose and pass one's own policies, but the ability to veto potentially dangerous initiatives from other people. The majority of vetoes do not take place in debates, drafting, voting, or other formal stages of

³⁹⁶ LLANOS, Mariana; NOLTE, Detlef. The many faces of Latin American presidentialism. GIGA German Institute of Global and Area Studies – Leibniz-Institut für Globale und Regionale Studien, 2016.

lawmaking. They rather occur in the “shadow of cabinets,” far away from the public sphere, for pemedebism avoids open confrontation and public consultation (plebiscites and referenda) as much as possible. Actors already consolidated within the pemedebist condominium do everything in their reach to prevent the entry of new members. The higher one manages to climb in the pemedebist hierarchy, the more access to public funds and posts, the larger veto power, and the greater ability to blackmail policies, colonize the public debate, and occupy the media, he will have.³⁹⁷ Competition takes place first inside the superbloc, and only secondarily between parties and within each party, which increases the importance of supra-party caucuses³⁹⁸ such as the Parliamentary Front of Agribusiness.

The pemedebist discourse is always anodyne and “in favor of abstract generalities without practical consequences (such as ‘health, education, employment, security, and housing for all’), being very concretely against specific changes” to reduce inequality. Therefore, to approve redistributive measures the government is obliged to not only overcome the opposition but also circumvent vetoes within its own coalition. Only decisions that pass the litmus test of getting around backstage vetoes stand a chance of being included in the agenda. Due to the influence of party leadership, presidents have to negotiate congressional support in a “wholesale” logic. When presidents try to make “retail” deals, bypassing party leadership and making direct offers to individual congress representatives, party leaders backfire and escalate the conflict. Not coincidentally, as Nobre argues, the “whistleblower” of the corruption scheme *mensalão* was a party leader who felt left out of the negotiations in the superbloc.³⁹⁹

Nobre traces the embryo of the pemedebist condominium back to the union of forces that came together in the 1980s to defeat the military dictatorship and guide the transition to democracy. While this alliance played a crucial role at the end of the autocratic regime, it also acted to block more active participation of social movements, unions, and popular organizations in the inauguration of the new republic. During the administration of Fernando Henrique Cardoso, the balance of power inside the pemedebist alliance shifted from the governors’ pole to the parliamentarians’ pole, which gave Congress even more prominence within the veto

³⁹⁷ The non-use of gender-neutral language here is on purpose: the *pemedebista* political culture is essentially patriarchal. In the 2023-2027 legislature, a record number of female candidates were elected in Brazil. Even so, the percentage is still very low: only 17.7% of the House of Representatives and 16% of the Senate are composed by women, far below the world average (25.6%). Feminine toilets were only installed in senatorial buildings in 2015. Closed-door meetings held by members of the *pemedebista* condominium often take place in private locations and environments typical of all-male socialization that inhibit female participation, such as hotel suits, dining rooms, and even whorehouses. For a gender perspective on Rousseff’s impeachment see RUBIM, Linda; ARGOLO, Fernanda (orgs.) *O golpe na perspectiva de gênero*. Salvador: Edufba, 2018.

³⁹⁸ NOBRE, Marcos. *Imobilismo em Movimento*. São Paulo: Companhia das Letras, 2013, p. 14-15.

³⁹⁹ NOBRE, *ibid*, p. 124.

system. When Lula came to power, he did not attempt a direct offensive to the system either. During his government, the Workers Party adopted the tactic of “occupying pemedebism by the left:” infiltrating through the fractures of the model to conquer and maintain the leadership of the superbloc, with the objective of creating (and then erecting a “cordon sanitaire” around) compensatory social policies aimed at lowering inequality. While this instrumentalization of pemedebism by the Workers Party was to a certain extent successful, its price was the normalization of pemedebism. In Nobres’ account, both FHC and Lula would be “more advanced configurations” – the first “neoliberal,” the latter “social-developmental” – of an “essentially conservative political culture.”⁴⁰⁰

Dilma Rousseff, who governed from 2011 until being impeached in April 2016, confronted *pemedebismo* more openly than Lula. She refused to compromise on matters that were vital to the maintenance of the *pemedebista* pact, such as the Forest Code,⁴⁰¹ and tried to take advantage of loopholes in the coalition to propose more radical changes. She removed PMDB politicians investigated for corruption from high-level positions in key ministries (remarkably the ministers of Health and Agriculture) and a dozen agencies (including directors of the state-run oil company Petrobras). By taking the honey pot out of the hands of old physiological politicians, she stirred the hornet's nest of oligarchic power, in a bold and unprecedented movement that has been referred to by André Singer as “republican turn”⁴⁰² and by Fernando Limongi as “ethical cleanup.”⁴⁰³

Her proposals to intensify participatory democracy (multiplying councils and other forums for social participation), reformulate concession rules in the infrastructure and energy sectors (strengthening public-owned companies and lowering tariffs paid by consumers) and regulate more strictly financial institutions (elevating taxes over net profits and limiting bank interest rates) despaired centrist parties of the pemedebist condominium. The idea of creating participatory forums to include more civil society representatives in policymaking and budget planning was detracted by the media as “Bolivarian” and “Soviet” and repeatedly labeled as “authoritarian” by congressmen.⁴⁰⁴ On December 2nd, 2015, an impeachment request against

⁴⁰⁰ Nobre, *op. cit.* p. 149.

⁴⁰¹ Nobre, *op. cit.* p. 140. Here Nobre’s contention that the Forest Code was “an important issue, but not even close to vital for the maintenance of the pact with the PMDB” deserves qualification. Given that the economic base of a large part of the pemedebist condominium is rooted on agribusiness, legal restrictions on the expansion of the agricultural frontier in the Amazon can be core disagreements, capable of threatening the coalition.

⁴⁰² SINGER, André. *O lulismo em crise: um quebra-cabeça do período Dilma (2011-2016)*. São Paulo: Companhia das Letras, 2018, p. 189.

⁴⁰³ LIMONGI, Fernando. *Operação Impeachment: Dilma Rousseff e o Brasil da Lava-Jato*. Kindle edition. São Paulo: Todavia, 2023, p. 23.

⁴⁰⁴ AZEVEDO, Reinaldo. O decreto bolivariano de Dilma e a farsa dos conselhos “populares” (Veja, 23 June 2014). Available at: <<https://veja.abril.com.br/coluna/reinaldo/o-decreto-bolivariano-de-dilma-e-a-farsa-dos->

her was accepted by the president of the House of Representatives, Eduardo Cunha (then affiliated with PMDB and later convicted to 15 years of prison for corruption). On that very same day, the Workers Party had declared its support for Cunha's impeachment in the ethics council of the House of Representatives. Contrariwise to the idea that Rousseff's impeachment was a response to popular pressure materialized in street protests against the government (an exogenous factor), her ousting can be better explained as an endogenous reaction of the political system to the anti-corruption crusade she launched in the upper echelons of the state.⁴⁰⁵

Still following Nobre's interpretation, the answer of the political system to the street protests of 2013 was a complete refusal to make any meaningful self-reform. Frustrated in finding institutional channeling, part of the social energies mobilized in the uprisings was transformed into an anti-system, anti-establishment, and extra-institutional opposition and passed into the hands of the "new right," forces that until then were electorally insignificant and maneuvered that to present themselves as distant from the "traditional right entrenched in the political system and governed by the logic of pemedebism." If Bolsonaro's ascension has been partially described as "a digitally organized conservative revolt" that "bypassed classic gatekeepers of the formal public sphere," it also can be interpreted as the limit, proto-authoritarian form of pemedebism. Bolsonaro infiltrated exactly through the gaps whose closure was vetoed by the pemedebist condominium, in the sense that his anti-system approach derived much of its force from the denial of the political system to make any concession following the 2013 protests. Having to sell an anti-establishment image to his supporters, Bolsonaro could not govern but had to parasite the ordinary functioning of the state. Differently from previous governments, his bargain with Congress did not aim at advancing a propositional agenda (even if a conservative one) but at buying protection for himself and his family against investigations and at securing permissiveness to the negative project of state destruction. He transferred a huge part of the federal budget to be distributed to parliamentarians at the discretion of the presidents of the House of Representatives and the Senate (a scheme dubbed secret budget) in exchange for blocking impeachment requests and not interfering with the ongoing dismantling of policies and takeover of agencies.⁴⁰⁶

conselhos-8220-populares-8221/> Accessed on 15 February 2023. AGÊNCIA CÂMARA. Deputados derrubam decreto dos conselhos populares. Available at: <<https://www.camara.leg.br/noticias/443908-deputados-derrubam-decreto-dos-conselhos-populares>> Accessed on 15 February 2023.

⁴⁰⁵ NOBRE, *op. cit.*; SINGER, *op. cit.*; LIMONGI, *op. cit.*

⁴⁰⁶ NOBRE, Marcos. *Limits of Democracy: from the June 2013 Uprisings in Brazil to the Bolsonaro Government*. London: Springer, 2022, p. 95, 133.

If we accept the pemedebism argument, instead of being an expression of the Executive's categorical agenda power, the need to buy off cartel-like parliamentary supermajorities to approve policies actually represents a sign of the enduring entrenchment of crypto-conservative, privileged minorities in party leaderships and the Congress. Under such circumstances, coalition formation appears less a functional solution to institutional stalemates and more a "shield erected by the political system against society." While it is clear that the system "works," or at least worked during the first thirty years of Brazil's New Republic, "working" means above all the self-reproduction of a base agreement whose ultimate purpose is to slow down structural changes.⁴⁰⁷

Now that we have laid down the main pieces of the coalition presidentialism and pemedebism arguments on the table (having ruled out hyper-presidentialism as an operational model to explain changes in the Brazilian environmental policy), we can confront the explanatory potential of these two interpretations with the answers provided by the interviewees to the question presented at the beginning of this section (why were presidential decrees the venue chosen for the creation of many of PPCDAm's instruments?).

The multiplicity of interests represented in the Executive, the long-standing conservatism of supermajorities in Congress, and the hierarchical veto system that takes place in the shadow of cabinets, far away from public opinion, are expressed in the answer given by a former employee of the Ministry of the Environment, who was directly involved in the writing of Decrees No. 6,321/2007 and 6,514/2008. Drafting took months of weekly meetings with representatives from different ministries and other authorities, and, in the negotiation process, bolder ideas proposed by the Ministry of the Environment were vetoed by other members of the government. This divergence of interests was quite noticeable in the definition of rules concerning embargo. The original suggestion of the Ministry of the Environment was to extend the embargo to the whole property in which illegal deforestation was committed, minimizing the risk of leakage. The rule that came through, though, established that embargos should be restricted to the illegally deforested part of the property and dirty lists should prioritize recidivist properties.

Everything in this package was negotiated down to the last millimeter, especially decree 6,321. It was built in three months, with two or three weekly meetings

⁴⁰⁷ NOBRE, *ibid* p. 48.

negotiating with the Federal Attorney General, attorneys, and representatives from different ministries. It was not flowers, harmony. It was a fight every day because we were inventing something that didn't exist. [...] I wanted to have gone much further. What I proposed was much more daring. For example, I proposed that in areas with illegal deforestation, the whole property would be embargoed, not only the deforested area. In other words, the guy will think three times because he has an area today that is legal, that he is using, enjoying, making money, everything is ok. If he does something wrong, I block everything. This did not pass. In fact, what passed was almost that only those who are repeated offenders in deforestation will go on the list. There was a lot of damping of everything we proposed in a very hard negotiation. But in the end, it came through. (Interview with a former top-level employee of the Ministry of the Environment).

He convolutedly referred to five reasons why decrees were the preferred normative venue: (1) speed (legislative procedures can take years, and the Ministry was being pressured to give a response to deforestation in real time); (2) uncertainty (even if a draft bill is proposed by the government, there is no guarantee it will not be almost completely rewritten in Congress); (3) unnecessary (there were already statutes in force establishing a broader framework for command and control, and executive orders are a legitimate instrument to regulate their operationalization without the need of other statutes); (4) anti-environmentalism of the Congress (congress representatives members of the environmentalist coalition have already proposed bills to institutionalize policies to prevent and control deforestation into statutes, but these initiatives never gained traction); and (5) fragmentation of interests within the Executive (securing cooperation from parliamentarians requires a strong internal alignment within the government around the strictness of the instruments to fight deforestation. At the time this was difficult to obtain because of the need to maintain support from the agribusiness).

This is a reality we had to face. We had to give a response in real time. I remember that we celebrated the third consecutive decrease in deforestation in August, if I am not mistaken, in 2007, in an event with Marina and the Minister of Agriculture. There we started to change a little, to find this new axis, which is the second phase, foreseeing the increase. There was no time to present any legislative proposal, to have a debate in the Legislative, to go through the House, the Senate. You know how a provisional measure gets in but not how it gets out. We understood we had to take executive measures. Why? Because the law is there. That is the truth. What is the law? There is a Forest Code, there is an Environmental Crimes Law. Basically these two laws. You cannot deforest in legal reserve areas, permanent preservation areas. What we did was to structure their application within a principle called shared responsibility. [...] There is a bill from Senator Randolfe Rodrigues that structures a plan to prevent and control deforestation with instruments, mechanisms, goals. There are a series of measures that can be taken in the Legislative branch to guarantee, for example, that resources for the plan will not be made contingent in the federal budget. But for this, you have to have a totally committed Executive branch and a slightly more balanced National Congress, things that are somewhat beyond our ability to govern. (Interview with a former top-level employee of the Ministry of the Environment).

The second interviewee who had knowledge to answer the question about the choice of normative venues for policy instruments worked for years as a coordinator within the

presidency's secretariat during the Workers Party administrations and became an advisor to a leftist parliamentarian during the Bolsonaro government. He was not directly involved in the drafting of Decrees No. 6,321/2007 and 6,514/2008, having rather followed the construction of PPCDAm from the more distant standpoint of the presidency's secretariat. Therefore, what his statement gives us is an insight into how the relationship between the executive and legislative for purposes of policy implementation was perceived by some key figures of the Workers Party. His take on the issue was slightly different from the one presented above, standing closer to the coalition presidentialism paradigm than to the pemedebism argument. He emphasized how the executive power to propose budget law is a powerful bargaining chip to induce cooperation from the Legislative, given how the latter depends on pork-barreling projects to secure reelection. The strategy would have been proven so effective that the left historically focused more energy on winning executive positions and underestimated the importance of electing congress representatives, which facilitated the increase of ruralist representation in Parliament.

Why are the ruralists growing so much? There was a very big prejudice against the Legislative in the left wing, by social movements. 'It's the Executive that makes politics, the dispute is within it.' They never gave much importance to the Legislative. With the Bolsonaro government, everyone started to see the importance of the Legislative. [...] We always had a democratic space for discussion with the Executive, even in the worst moments. [...] Since the movements were organized after the 1988 constitution, we always had moments in the country when there was a more open space to do politics, discuss, and claim. The claims went straight to the Executive. With Bolsonaro's change, everyone started to really see the need for the Legislative. [...] The federal government has a very big impact on federal policy. If the federal government has a position, even if it has a minority in Congress, it forces Congress to back down. Because [the Legislative] too has become dependent on the Executive to be able to meet its demands, things that then become a question of exchanging favors, even if they are legitimate demands. The congressperson needs the executive on his side because otherwise, she can't present results at the end. The concept of parliament has become very atrophied in the country. Today even city councilmen have parliamentary budgets [money to spend on their bases]. The legislature became a builder of construction works. If you talk to any representative here, what he will say is: 'I got this many daycare centers, I will get this.' Then you ask him: do you follow the supervision of the Executive? He will say that he doesn't know what the Executive is doing. His main function was to supervise policy and budget execution, what the government is doing, what has been extinguished, but most of them don't follow. Parliamentary budgets, they know everything about them. (Interview with a former employee of the presidency's secretariat).

With Bolsonaro's election, the left had to find room in Congress to build up an opposition. The parliament's long-standing logic of acting more as "builders of construction works" than as legislators or overseers of the executive's actions made this task more complicated. However, the fact that Bolsonaro transferred one of the executive's most persuasive bargaining chips – the distribution of budget to pork-barreling projects – to the presidents of the House of Representatives and the Senate in exchange for blocking impeachment requests gave the opposition a small gap of opportunity to obstruct the most

damaging draft bills in Congress. As the internal regulations of both chambers grant their presidents enormous discretion regarding the agenda voting calendar, the opposition was able to exert a more targeted and centralized pressure on them, instead of having to recur to the pulverized strategy of trying to change individual votes.

In March 2022 various social movements, artists, and NGOs organized a music festival in front of the Parliament to protest against a set of draft bills endorsed by Bolsonaro's allies in Congress, nicknamed "package of destruction." The most pressing topics among this package were Draft Bill No. 2,633/2020 and No. 510/2021, which would facilitate the appropriation of public lands by large landholders and recent occupants; Draft Bill No. 6,299/2002, which would approve the use of carcinogenic agrochemicals forbidden in many countries; Draft Bills No. 2,729/2004 and No. 2,159/2021, which would practically extinguish environmental licensing to undertakings of any size and scope; and the Draft Bills No. 490/2007 and 191/2020, which would impose restrictions to demarcation of indigenous lands and authorize the installation of large enterprises such as mining, hydroelectric plans, and highways inside indigenous lands. The pressure did not work for the House of Representatives (in a defiant gesture, it approved the package's urgency *while* the festival was occurring) but had an effect in the other chamber. Rodrigo Pacheco, who held the Senate's presidential chair at the time and can be considered moderate in comparison to Bolsonaro, removed the package from the agenda, indefinitely postponing its deliberation.

The fact that none of the above-mentioned drafts has been approved to this date does not mean, however, that Congress succeeded in (or even tried to) posing constraints to Bolsonaro's authoritarian project. Most of the goals intended by the package of destruction were accomplished *de facto* through the dismantling of state agencies by means of executive orders, a process we will see in detail with regard to Ibama in the next chapter.

If organized civil society managed to lobby against the most damaging ruralist bills during Bolsonaro's term, the ruralist caucus has also been able to systematically block environmental initiatives. Two interview fragments provided by agribusiness actors fit this conundrum of events. Both of them spontaneously brought to the conversation episodes in which agribusiness associations successfully lobbied against environmental bills in Congress. The first interviewee, a soy farmer, mentioned with naturalness and pride that the Parliamentary Front of Agribusiness managed to block a constitutional amendment to include the Cerrado, a biome contiguous to the Amazon, as national patrimony in the Constitution. The second interviewee, a cattle rancher, described how a senator removed a draft bill on animal welfare from the agenda because some of its propositions (prohibition of slaughtering pregnant or

nursing females, prohibition of fire branding, and prohibition of caging) had a “bad repercussion” among the agribusiness sector. Interestingly, the two of them used the pronoun “we” when referring to the actors responsible for obstructing the amendment, in the first case, and for redrafting the bill, in the second case – a small discursive act that shows how closely they feel represented as constituents by the members of the rural caucus.

They tried to put it [protection of the Cerrado biome as a national patrimony] into a constitutional amendment, and we overthrew it in the House of Representatives. They wanted to put this prohibition in the Constitution. We said ‘no, the Constitution cannot prohibit agricultural expansion.’ (Interview with an agribusiness actor).

This week a bill was introduced by Senator Álvaro Dias, with a series of restrictions related to animal welfare. It is a big bill. Repercussion was bad. He removed it from the agenda. I believe it won't come back, but these issues will come in other ways. [...] This bill from Álvaro Dias is very hard, it is unfeasible, it cannot be approved. But many things have to be improved, we have to improve. [...] One issue that I think is very complicated is the slaughter of pregnant females, that you can't slaughter pregnant or nursing females. It's very difficult not to slaughter pregnant females, mainly for small ranchers. For big ranchers, who plan and organize themselves, it's much easier. Not for the small ones: there's already a bull going to impregnate her and he needs to sell. We all need to sell to make the farm viable. This is one issue. The other is prohibition of branding. I think that has to be worked around, but it is not important. Now, banning caged animals is a big restriction. I don't think confinement comes into that restriction, only caging. Poultry and pig farming are very dependent on this. (Interview with an agribusiness actor).

What the statements abovementioned reveal, in my reading, is that much of PPCDAm's formulation process can be explained through the lenses of pemedebism. Nobre's depiction of a hierarchized system of vetoes taking place in the shadows of cabinets finds a forceful expression in the negotiations that shaped the drafting of Decree No. 6,321/2007. Harder command and control measures that could truly restrain the expansion of agribusiness over the Amazonian territories were not a consensus even within the federal Executive, as more restrictive proposals of the Ministry of the Environment were barred by other members of the multiparty governing coalition in closed-door meetings.

Notwithstanding the multiplicity of interests internal to the governing coalition, the Executive was a space much more open to the agenda of deforestation prevention and control, when compared to the Legislative. During the implementation period of PPCDAm, environmental statutes approved in Congress were more oriented toward creating economic incentives for sustainable practices rather than imposing sanctions on private actors. Lobby of agribusiness associations and coordinated opposition from the ruralist caucus managed to systematically block initiatives such as those mentioned by the interviewees: the bill by Senator Randolfe Rodrigues to institutionalize PPCDAm into statutory legislation and expand it to all Brazilian biomes (Draft Bill No. 6,230/2019), the constitutional amendment to include the protection of Cerrado in the Constitution (Draft Constitutional Amendment No. 504/2010), and

the bill by Senator Álvaro Dias to enhance rules on animal welfare (Draft Bill No. 827/2022). Vetoes to these initiatives did not necessarily take place in a deliberative and participatory way, in an arena transparent to civil society. They usually happen covertly, far away from public opinion, either by perpetually postponing the voting on the matter (the case of Draft Constitutional Amendment No. 504/2010, which has been in Congress for 13 years), by delaying the appointment of a rapporteur (the case of Draft Bill No. 6,230/2019, which has been awaiting the appointment of a rapporteur for 4 years), or by removing the proposal of the agenda (the case of Draft Bill No. 827/2022, withdrawn by the author himself).

In sum, electoral rules and the internal regulations of the House of Representatives and the Senate grant party leaders and the presidents of both congressional houses enormous discretion regarding agenda voting calendar, vote counting methods, allocation of public funds for electoral campaigns, and approval of pre-candidacy lists. Such centralization of resources endows these actors with substantial power to influence legislative work, secure party discipline, minimize unpredictability, and ultimately veto changes in the patterns of distribution of power, income, and social recognition. In such a scenario, the strong reliance of PPCDAm's instruments on presidential decrees can be better understood not as resulting from the authoritarian character of ever-expanding imperial presidencies, but as a sign of the limit of the Executive's categorical agenda power over Congress in the New Republic. It reveals that harder command and control instruments against deforestation remained outside the consensus of the pemedebist condominium and stand at the threshold of Brazilian coalition presidentialism.

5.3 Vertical coordination among federal and subnational governments

Besides registering the difficulties encountered in the task of strengthening markets for agroecology and sociobiodiversity products and facing the hegemony of a conservative supermajority in Congress, PPCDAm's documents and the independent audits repeatedly brought to the fore that a lack of "political appropriation" of PPCDAm's agenda by the states and municipalities was a major hindrance to its long-term success. They stressed several times that the federal government should stimulate more active participation of subnational governments in the policy's formulation and execution. The institutional challenge of integrating policy objectives in multilevel governance has been called in the literature "vertical coordination," which refers to the centralized/decentralized distribution of administrative competences between regulatory structures of different levels (notably between a central state

and federal regions).⁴⁰⁸ The call for vertical coordination within the scope of PPCDAM intensified after the enactment of Complementary Law No. 140/2011, which regulated the cooperation between the federative entities to execute the common competence of protecting the environment and preserving forests, fauna, and flora.

Multiple strategies for the federal government to engage the states and municipalities in PPCDAM's agenda were envisioned by policymakers, such as new modalities of conditional budget transfer, regional consortiums, training servants of state environmental and land agencies. Moreover, at least 11 projects were contracted by the Amazon Fund with state governments to support the implementation of the CAR – whose results, one cannot point out enough, were very limited, as registration remained self-declaratory and was not succeeded by large-scale on-site validation by the subnational environmental agencies.⁴⁰⁹

PPCDAM's documents constitute evidence that its formulators were not oblivious to the particularities characteristic of each Amazonian states but made a conscious effort to reflect these differences when planning concrete activities for each thematic axis. Subnational actors (along with the private sector and non-profit organizations) were consulted in many workshops preceding the elaboration of policy documents in each phase. Since the beginning, the federal government lent support for the elaboration of plans for prevention and control of deforestation by the states themselves. Countless initiatives to strengthen cooperation between federal and state agencies (both in land and environmental policy fields) were planned throughout the policy's 14 years of existence.

Therefore, an easy criticism that blames the deficit of engagement of the states and municipalities on an alleged “top-down” character of the policy, as if it was formulated solely by ivory-tower technocrats sitting in air-conditioned bureaus in Brasília, distant and unaware of “local realities,” is flagrantly inadequate to understand the intricacies of the dynamics between the federal entities that shape the history of PPCDAM's implementation. To unveil the manifold layers of conflict subtending the lack of political appropriation of the anti-deforestation agenda by local governments, we should turn instead to the federative pact established by the Constitution of 1988 and the rules shaping policy interactions between municipal, state, and federal levels.

⁴⁰⁸ KNILL, Christoph; LENSCHOW, Andrea. *Coping with Europe: the Impact of British and German Administrations on the Implementation of EU Environmental Policy*. EU Working Papers – RSC no. 97/57. Florence: European University Institute, 1997, p. 3; LENSCHOW, Andrea. *The greening of the EU: the Common Agricultural Policy and the Structural Funds*. *Environment and Planning C: Government and Policy*, 17(1), 1999, pp. 91-108, p. 92.

⁴⁰⁹ CENTRO DE SENSORIAMENTO REMOTO UFMG, *op. cit.*

Although unitary and federal states evoke opposite models for distributing authority, empirically distinguishing one from the other is often more difficult than one thinks. Federal states are usually identified based on indicators of *self-rule* (defined as vertical distribution of functions, with exclusive authority to subnational governments to decide over at least one policy field) and *shared-rule* (defined as the right of subnational governments to participate in national decisions). These indicators can include to what extent subnational governments have (i) authoritative competences in relevant policies; (ii) authority to collect taxes with autonomy, defining bases and rates of self-generated revenues; (iii) authority to obtain loans without prior authorization from the central government; and (iv) institutional decision-making on revenue distribution. In countries that have symmetrical bicameralism, another important feature associated with federalism is the existence of a territorial Senate, that is, a chamber filled through direct elections held in the states' own territory and in which they can potentially veto national legislation.⁴¹⁰

Brazil represents well the complexities in drawing rigid lines between federal and unitary states. The Constitution of 1988 adopted “cooperative federalism” as a mode of government. It divided competences between the Union, states, and municipalities, qualifying all three of them as autonomous entities and positing the decentralization or division of powers at the core of the state's federative pact. Nonetheless, the actions and agendas of local governments strongly “depend on whatever is coordinated (and financed) at the national level.”⁴¹¹ One of the main reasons for this dependency is the limited fiscal autonomy of subnational governments, which “can establish the rates of their own taxes but not their bases.” Albeit able to decide on revenue distribution, subnational states cannot contract loans without prior authorization of the Union.⁴¹²

The constitutional criterion ruling the division of executive and legislative competences is that of “preponderance of interests”, meaning that matters of “national interest” fall within the competence of the Union, matters of “regional interest” within the competence of the states, and matters of “local interest” within the competence of the municipalities.⁴¹³ Articles 21 to 30 of the Constitution densified the meaning of “national, regional and local

⁴¹⁰ ARRETCHE, Marta. Between Federal and Unitary States: A Misleading Dichotomy. In: HÜBNER, Conrado (ed.). *The Oxford Handbook of Constitutional Law in Latin America*. Oxford: Oxford University Press, 2022, pp. 470-483.

⁴¹¹ LOTTA, Gabriela; DE OLIVEIRA, Vanessa Elias. Local Government. In: HÜBNER, Conrado (ed.). *The Oxford Handbook of Constitutional Law in Latin America*. Oxford: Oxford University Press, 2022, pp. 483-491.

⁴¹² ARRETCHE, *op. cit.* p. 477.

⁴¹³ MOHN, Paulo. A repartição de competências na Constituição de 1988. *Revista de Informação Legislativa*, 47:187, 2010, pp. 215-244.

interests” by establishing an extensive list of matters that fall within the exclusive, privative, common, concurrent, supplementary, delegated, or residual competence of the Union, states, and municipalities in both executive and legislative branches.

Common and concurrent competences are the only two types that interest us in our examination of PPCDAm. Matters subjected to common competence shall be *executed* by all federative entities in a cooperative manner; the norms regulating such cooperation are posited by laws complementary to the Constitution.⁴¹⁴ Matters subjected to concurrent competence, in their turn, shall be *legislated* in general terms by the Union and in supplementary terms by the states. Whereas common competences refer to administrative or executive action, concurrent competences concern the enactment of legislation.

According to the constitutional text, “the protection of the environment and the preservation of forests, fauna, and flora” are common competences that shall be cooperatively executed by the Union, the states, and the municipalities. Likewise, “forests, hunting, fishing, fauna, nature conservation, defense of soil and natural resources, protection of the environment and pollution control” are matters subjected to concurrent legislation by the Union and the states.⁴¹⁵ However, a complementary law regulating the cooperation between the federative entities to execute the common competence of protecting the environment and preserving forests, fauna, and flora (Complementary Law No. 140/2011) only came 23 years after the promulgation of the Constitution. Until then, environmental policies were formulated and executed primarily by the Union, based on the provisions of the National Environmental Policy but without clear coordination criteria.⁴¹⁶

The National Environmental Policy enacted in 1981 already foresaw decentralization of competences between the federative entities. The statute provided for a non-exhaustive list of cooperation instruments including consortia, covenants, technical cooperation agreements, tripartite commissions, joint funds, and delegation of attributions. However, very few cooperation instruments were concluded under the framework of the National Environmental Policy.⁴¹⁷ A survey carried out in 2019 found that, at the Union level, only the Ministry of the Environment and Ibama had so far concluded cooperation instruments (respectively, 34 and 24 instruments). At the level of the Amazonian states, Acre, Amapá, and Tocantins respectively

⁴¹⁴ Complementary laws, in the Brazilian law-world, differ from ordinary laws in two ways: they require a more qualified quorum in Congress and can only be proposed if the constitutional text expressly provides for the regulation of a specific matter by the species of complementary law.

⁴¹⁵ BRAZIL. Federal Constitution of 1988, article 23, VI, VII and article 24, VI.

⁴¹⁶ BRAZIL. Law No. 6,938/1981.

⁴¹⁷ LINKC, Lorena Carvalho; IANONI, Marcus. O federalismo cooperativo no Brasil e o sistema multinível de gestão ambiental. *Desenvolvimento e Meio Ambiente* 20, 2022, pp. 271-292, p. 284.

had already concluded 48, 3, and 7 technical cooperation agreements. Amazonas concluded 6, but 5 of them were not being executed. Roraima concluded 2 resource transfer agreements, whereas Rondônia did not inform the conclusion of any cooperation agreement. Pará was, by far, the most active state in concluding partnerships with other federative entities, having concluded a total of 133 cooperative instruments in different modalities.⁴¹⁸ The majority of these instruments were not concluded under the influence of the National Environmental Policy but came only after the enactment of Complementary Law No. 140/2011. At the municipal level, the percentage of municipalities with some kind of secretariat responsible for dealing with environmental matters went from 68% in 2002 to 90% in 2013. Only 38% of the Amazonian municipalities had concluded some kind of cooperation instrument in 2002, although the number of municipalities that declared having structured municipal environmental funds increased from around 1% (81) in 2001 to 42.8% (2,386) in 2013.⁴¹⁹

The long-awaited Complementary Law No. 140/2011 defined more clearly the terms of cooperation between the federative entities to execute the common competences of environment protection and forest preservation. Decentralization followed a two-step logic. First, the competence of environmental licensing was distributed according to the potential scale of environmental impact. Municipalities became responsible for licensing activities or undertakings that cause or may cause environmental impact at the local level. The Union became responsible for licensing activities or undertakings located or jointly developed in Brazil and a neighboring country, on indigenous lands, in two or more states, of military character, or intended to mine radioactive material. The states received the larger share of responsibility, becoming competent for all remaining cases, broadly formulated as “activities or undertakings that use environmental resources, effectively or potentially polluting or capable, in any form, of causing environmental degradation.”⁴²⁰ The second step operated by Complementary Law No. 140/2011 was to couple licensing jurisdiction with responsibility for monitoring, investigating and judging administrative environmental infractions. In other words, each federative entity became responsible for conducting inspections and administrative proceedings with respect to the environmental infractions committed in the same territory of its licensing jurisdiction.⁴²¹

⁴¹⁸ SANTANA, Paulo Campanha *et al.* O federalismo cooperativo aparente no Brasil para proteção ambiental. *Cadernos de Direito Actual*, 11, 2019, pp. 279-303.

⁴¹⁹ SANTANA *et al.*, *op. cit.* p. 279-303.

⁴²⁰ BRAZIL. Complementary Law N° 140/2011, articles 7°, XIV, 8°, XIV and 9°, XIV.

⁴²¹ BRAZIL. Complementary Law N° 140/2011, article 17.

Besides illustrating well why the Brazilian repartition of competences earned the label “federative kaleidoscope,”⁴²² these provisions brought impactful consequences to policies aimed at the prevention and control of deforestation. Under Complementary Law No. 140/2011, approximately 85.6% of all illegal deforestation in the Amazon became competence of the states, while only around 14.4% remained under primary responsibility of the federal government.⁴²³ However, given the precarious and fragile structure of many subnational environmental agencies,⁴²⁴ this radical decentralization was counterbalanced by a “backup” mechanism implanted right at the end of Complementary Law No. 140/2011: one federative entity is not prohibited from inspecting activities or undertakings that a priori fall under the responsibility of another federative entity. If this ends up resulting in multiple and overlapping administrative proceedings, the one opened by the directly competent entity prevails.⁴²⁵ In what concerns PPCDAm, as we will see in part II, this escape valve allowed Ibama to continue taking the lead in planning and executing inspection operations in the Amazon, circumventing the inertia of subnational governments.⁴²⁶ Although illegal deforestation was made into a matter of primary competence of the states, due to the fragile capacity of their agencies, command and control never ceased to be primordially carried out by the Union.

At this point, one could question the reasons for the states to refrain from investing in capacity-building of their environmental agencies. Deficit of fiscal autonomy or lack of political interest, which factor would most decisively explain their inaction? As argued by Arretche, debates on federative design are usually divided into two opposing normative stances. Those who “prioritize equality, and favour the expansion of social spending and the comprehensive coverage of social programmes” often see federal states as imposing “institutional obstacles for a majoritarian coalition to implement its agenda of government” and prefer “institutional arrangements that concentrate political authority.” On the other hand, those wary of what they perceive as interference from central authorities tend to think that “institutional obstacles of the federal states are the best way to prevent citizens from being exploited by strong governments and ‘rent-seeker’ bureaucracies.” While both sides agree that “federalism produces obstacles to the realization of the preferences of national majorities,” they diverge on “the normative

⁴²² GRIN, Eduardo José; ABRUCIO, Fernando Luiz. Quando nem todas as rotas de cooperação intergovernamental levam ao mesmo caminho: arranjos federativos no Brasil para promover capacidades estatais municipais. *Revista do Serviço Público*, 69, 2018, pp. 85-122.

⁴²³ SCHMITT, Jair; SCARDUA, Fernando. A descentralização das competências ambientais e a fiscalização do desmatamento na Amazônia. *Revista de Administração Pública* 49:5, 2015, pp. 1121-1142, p. 1134.

⁴²⁴ SCHMITT; SCARDUA, *ibid* p. 1135.

⁴²⁵ BRAZIL. Complementary Law N° 140/201, article 17, § 3°.

⁴²⁶ SCHMITT; SCARDUA, *op. cit.* p. 1131.

prescriptions on the basis of which the performance of different constitutional choices is evaluated.”⁴²⁷ In other words, in many contemporary democracies the subnational level is primarily associated with particularist interests, while the central government more immediately relates to plebiscitarian forces.

When it comes to the impact of the federative design on environmental policies, part of the literature links the discussion with notions of “clientelism,” “paternalism,” and “coronelism.” Subnational governments are portrayed as more easily captured by local agribusiness elites. At the same time, federal agencies are seen as reluctant to give up the concentrated power they have so far enjoyed. Neither escapes the patrimonialist label. Consider, for instance, the following paragraph written by Scardua and Bursztyń in 2003 (thus before PPCDAm and Complementary No. Law 140/2011):⁴²⁸

Clientelistic and ‘coronelist’ practices, linked to local political issues, may influence the way municipal environmental agencies act, allowing greater disaggregation and generating negative externalities for the environment. If the decentralization process is not carried out in an articulated manner, with the active participation of the population and social control agencies, such as Ministério Público, these practices cannot be overcome. [...] [A]t the local level, mechanisms of social control are in the hands of governors who, many times, go in the opposite direction of actions emanating from the higher sphere of power. Local governability must be counterbalanced by governance mechanisms that allow the system to reduce political vulnerability due to economic interests, which could cause setbacks and even distortions in local environmental policy. This is because local elites in the exercise of power sometimes tend to paternalism and the development of clientelistic practices, compromising environmental quality. [...] Existing obstacles to decentralization of environmental management are much more related to the culture of the central agencies - which have a centralizing vision of how to act, an inheritance from the patrimonialist model still present in our society today - than to an interest or not of assuming this attribution, alongside the absence or insufficiency of institutional capacities, infrastructure, and social participation in the municipalities. [...] Recent Brazilian experiences of policy decentralization do not allow us to see, until the present moment, a rupture with the historical pattern of ‘capture’ of the state at the local level by traditional practices that have marked national political life since the beginning of the colony. As varied faces of ‘coronelism’ - the Brazilian version of patrimonialism - have always found room to enjoy, de facto, benefits provided by the central power, there is no convincing evidence that the old political culture has been substantially reverted.

Clientelism, paternalism, patrimonialism, and coronelism (often accompanied by other *isms* such as personalism, *filhotismo*, *mandonismo*, and caudillism) are categories subject to heated sociological debates in Brazil,⁴²⁹ and cannot be lightheartedly employed as explanation variables in policy analysis without conceptual densification and historical analysis. Although an open engagement with their centrality (or equivocation) to the understanding of Brazilian politics and society lies beyond the scope of this chapter, some respondents gave valuable

⁴²⁷ ARRETCHE, *op. cit.* p. 471.

⁴²⁸ SCARDUA, Fernando Paiva; BURSZTYN, Maria Augusta Almeida. Descentralização da política ambiental no Brasil. *Sociedade e Estado* 18(1/2), 2003, pp. 291-214.

⁴²⁹ Cf. SOUZA, Jessé. *A Elite do Atraso: da escravidão a Bolsonaro*. 2nd ed. Rio de Janeiro: Editora Leya, 2019.

indications on how the dynamics between the Union and local governments were perceived by the actors participating in the implementation of PPCDAm, most of whom was involved with environmental policies at the subnational level.

Therefore, for the purposes of organizing and interpreting these interview transcripts, I base myself on the interpretation advanced by Elizabeth Rosa, who conducted an in-depth case study on the influence of agribusiness elites in the municipal agenda-setting in Sorriso, Mato Grosso, in 2009. Her analysis was grounded on the premise that coronelism is historically circumscribed to Brazil's First Republic (1889-1930) and does not find in today's reality the societal and institutional elements necessary for its reproduction, as the majority of voters now live in urban areas⁴³⁰ and multiple participatory channels for citizens at the local level (such as participatory budget, policy councils, and directive plans) were consolidated in the Constitution of 1988. In municipalities heavily influenced by agribusiness, whereas “various institutional and non-institutional mechanisms create barriers to the capture of public power by economic power elites,” at the same time “institutional innovations in the democratic field face several inhibitions regarding their effectiveness in promoting access of civil society to the municipal public decision-making process.” Such inhibitions are due to the active participation of agribusiness elites in the electoral process at the state and municipal levels, which results in the prevalence of “an environment of little plural power-sharing, with low participation of civil society and concentration of leadership in [few] groups and expressive leaders.”⁴³¹

Rosa's empirically-based contention is not distant from the theoretical-normative reflections made by Unger in 2001 on the federative design inaugurated by the Constitution of 1988. His starting point was the widespread assumption – the “almost universally accepted objective,” – that Brazil should not be “a unitary state under the disguise of a federation” and thus the financial independence and administrative autonomy of the states and municipalities should be “reinvigorated.” Unger considered civil society's engagement and organization as pre-conditions to any effective transformation, and admitted they can be hindered “when power is concentrated in a way that empties the meaning of governmental structures that are closest and most accessible to people.” “On the other hand,” he counter-argued, “federative

⁴³⁰ Scholars have observed, though, that the Brazilian definition of “city” tends to overestimate urban areas and downsize rural areas, in comparison to OECD countries. If OECD criteria were adopted, the Brazilian rural population could jump from 15% to 33% of the total population. See DA VEIGA, José Eli. The rural dimension of Brazil. *Estudos Sociedade e Agricultura* 1, 2005, pp. 1-14; ZIMERMAN, Artur; PINHEIRO Flávio. Appearances can be Deceptive: Political Polarization, Agrarian Policy, and Coalitional Presidentialism in Brazil. *Politics & Policy* 48(2), 2020, pp. 339-371, p. 349.

⁴³¹ SILVA, Elizabeth Rosa. A organização e a influência da elite empresarial rural no processo de construção da agenda de governo: uma análise a partir da percepção de atores sociais de uma cidade do agronegócio da fronteira agrícola do Brasil (Doctoral Dissertation) – Getúlio Vargas Foundation, 2009, p. 235-236.

decentralization without a transformative central politics constitutionally capable of putting social reforms into practice” would mean nothing more than to “handle power over to existing oligarchies.” Detached from guarantees against the danger that decentralization will simply be used to consolidate privileges that in practice become “immune to electoral challenge” at local levels, “strengthening states and municipalities brings the same pro-oligarchical risks”.⁴³²

Brazil has a historical example at hand as counter model from which the new order inaugurated by the Constitution of 1988 should depart as much as possible: the First Republic. Unger described the political configuration of this historical moment as “a superfederation in which the power of the states [...] served as a weapon to the stabilization of the oligarchical condominium.” In contrast, the centralization of power in subsequent periods represented, “under a certain point of view, a continuation of republicanism itself.” In other words, just as valid today as when published in 2001, “if the central power in Brazil has been the privileged partner of the powerful and rich, it also has been the only agent capable of threatening them and opening spaces for the creation of counter-models of social organization.” To bring Unger’s point home, “the revitalization of the federation” is not an “instantaneous result” emerging from mere lawmaking but “a process realized little by little, as the central power is reorganized and the elitist means of control held by local power are dismantled.”⁴³³

Based on PPCDAm’s evaluations and this literature on the dilemmas of federalism, the interview guides included a question on the performance of subnational governments in the implementation of PPCDAm. When posing the question, I tried to avoid a positive bias in favor of the federal government and a negative bias against the states. I addressed this topic with political actors, federal prosecutors, and environmental servants. When it occasionally appeared in the conversation with rural producers, I received evasive answers such as “we are accountable to both Naturatins [Tocantins’ environmental agency] and Ibama. If you comply with the legislation, you won’t have problem.” My approach to the subject with the interviewees to whom I posed the question directly went in the following direction (with small variations in each interview):

Texts dedicated to the evaluation of PPCDAm have pointed out that the axes that depended more on the federal level, such as command and control, ended up advancing faster, while the axes that depended more on the state and municipal levels, such as land tenure regularization, ended up not advancing as much. A common trope reproduced is that the federal level was more sensitive to the demands of social movements and could impose certain instruments and policies that would be contrary to the interests of local agribusiness; whereas the states and municipalities would be more susceptible to capture by these groups. On the other hand, we see some strong

⁴³² UNGER, Roberto Mangabeira. *A Segunda Via: presente e futuro do Brasil*. São Paulo: Boitempo, 2001, p. 155-156; 184-186.

⁴³³ UNGER, *idem*.

and important environmental initiatives by subnational governments. Based on your professional experience, how do you see the challenge of dividing environmental competences among the federative entities? Is this criticism a reality or a prejudice against the states?

All respondents agreed with the statement that subnational states, as a rule, are more vulnerable to capture by local agribusiness elites. Some only added a few caveats, either by differentiating states that have exhibited more advanced initiatives or drawing attention to the unprecedented increase in environmental protagonism of subnational governments during the institutional blackout of the federal government under the Bolsonaro administration. Part of the interviewees made more general comments on how they perceived the consequences of such capture for environmental policies; others gave detailed examples of concrete situations in which interference of economic interests blocked more effective initiatives within PPCDAm.

PPCDAm as “intervention” in subnational states

The first statement was given by an individual who participated in the formulation of PPCDAm’s first phase as a member of civil society (he was an NGO advisor), and in its second phase as a high-level employee of the Ministry of the Environment. He also worked as a pro-indigenous lawyer in the lawsuit filed by the state of Roraima against the demarcation of the indigenous land Raposa Serra do Sol. He used the forceful word “intervention” to describe the states’ perception of PPCDAm’s territorial planning and command and control axes. Demarcation of indigenous lands, creation of conservation units, inspections, and the list of priority municipalities were all initiatives in which the states “participated very little,” “were not on board,” “were pissed off about,” or even tried to reverse. At the time, these measures created an “uproar:” angry mayors knocked on the door of the Ministry of the Environment complaining that large industries canceled businesses in their cities because they were listed as priority municipalities. Subnational governments blamed the fight against illegal deforestation spearheaded by the federal government for “putting an end to [local] economies.” The respondent also compared the extension of responsibility provided for in Decree No. 6,514/2008 with recent legislative proposals by the European Union to hold accountable supply chain actors involved with deforestation,⁴³⁴ implying that a similar mechanism had been already

⁴³⁴ On February 23rd, 2022, the European Commission approved a proposal for a directive on corporate sustainable due diligence. The most acclaimed legal innovation proposed by the resolution is the creation of a mandatory duty on undertakings to take all adequate measures with a view to identifying, preventing, mitigating, minimizing, and bringing to an end adverse human rights impacts and adverse environmental impacts.

incorporated into the Brazilian environmental framework 15 years earlier – an innovation whose pioneer character would have gone unnoticed by policy experts.

The first phase of the PPCDAm was almost an intervention in the territories, because it was the federal government creating federal conservation units and recognizing indigenous territories. The states see this as an intervention. The federal government comes and blocks an entire territory, creating a national forest, a national park, an ecological station or recognizing an indigenous territory, which the states fought against. Several states filed lawsuits to try to stop the demarcation of indigenous lands. I myself was a lawyer in the demarcation of the Raposa Serra do Sol, one of the largest indigenous lands in Brazil, there in Roraima. The state of Roraima filed an injunction to prevent the demarcation of the indigenous lands. The states felt affected by the forceful action of the federal government. The federal government sent Ibama and didn't use inspectors from the states. Why? Because they were already kind of accommodated in that situation. They built task forces bringing in people from outside the states. There was no interlocution. The state government had no way of knowing what was going on. Many times operations were done and the state government didn't know what was going on. Another intervention was the inspections. [...] The first phase of PPCDAm was very focused on creating conservation units, large blocks, indigenous territories, improving the enforcement strategy. Basically, this was it. In the second phase, we no longer had large conservation units to create. We still had them, but the main ones were already being created and there was no way to expand supervision because the states were participating very little. In fact, the states kind of ignored this second phase of the PPCDAm. Let's say, it was not that they played against it, but they didn't get on board. [...] And when the second phase of the PPCDAm came, it came with a list of the critical municipalities. The logic was the following: deforestation is not in the Amazon. The champion of deforestation was not Blairo Maggi, or I don't know who, or a state. Deforestation happens on the ground. And deforestation finances the electoral campaign of city councilors and mayors because it is illegal logging and land speculation that create the local elite. And the local elite commands local politics; they structure state politics. State deputies are, in quotes, supported by mayors and councilmen to get elected. So, when we created the list of critical municipalities through an ordinance, this was my idea. I said 'we need to show who is paying the bill for deforestation. And you can be sure that it is on the account of councilmen and mayors. This is a municipal election year. This is going to shake things up.' It was an ordinance from the Minister of the Environment. The same ordinance that says where the bathroom is located defined the critical municipalities. Only we are not going to do it arbitrarily: we are going to establish a qualified technical criterion to say which are the critical municipalities. [...] According to this criterion, 36 municipalities out of 900 were responsible for 50% of deforestation. So, we listed the 36. What happened was an uproar. Mayors were pissed off, 'my town is there and it is the first on the list.' Outside companies that did business with these municipalities, bought wood, had slaughterhouses, they started to get worried because we were discovering that they are paying the bill for deforestation. I received politicians at the Ministry of Environment who said the Ministry of Environment was to blame because the municipality was on the list of critical municipalities and a plant of a big company was not installed in the municipality. I don't remember if it was [.], it was one of those companies that decided not to install the plant in the municipality because it was a critical municipality for deforestation. It was going to link its name to illegal deforestation. Look at this. This was 15 years ago. Today, the European Union is defining a rule to prevent import of products that are linked to deforestation. At that time, we started this story of connecting the image of politicians and companies to deforestation. This generated pressure on governors, because mayors started to complain to deputies, deputies with governors: 'the federal government is putting an end to our economy.' When the relationship was not negative, it was an ambiguous relationship, even with allied governments. [...] The Workers Party in Acre was a government that dialogued with us in a positive way, but treading on eggshells because they felt very intimidated. (Interview with a former high-level employee of the Ministry of the Environment).

Historical motives for predominant federal ownership of Amazonian lands

The second excerpt was provided by another former high-level employee of the Ministry of the Environment. He gave a detailed explanation about the historical reasons why Amazonian public lands have remained federal (a condition which allowed the creation of conservation units and demarcation of indigenous lands against the interests of local agribusiness elites, especially in the “Mosaic of Terra do Meio” alongside BR 163) while in other regions, such as the Central-West and the Northeast, public lands remain to this day largely owned by the states (making it more difficult to transform them into buffer zones or acknowledge them as indigenous or traditional territory). A key event to understand this difference is a decree-law issued by the military regime in 1971, which federalized all “vacant lands located within 100 km on each side of already built, under construction or projected highways” in the Amazon, under the justification they were “indispensable to national security and development.”⁴³⁵ Curiously, a legal device designed by an authoritarian regime for exploitation and colonization purposes ended up contributing to the creation, 30 years later under a democratic government, of one of the world’s largest mosaic of protected areas.

The buffer zone in the Amazon case was possible because the lands were public and undesignated. No doubt that made it easier. In 1888 public lands passed [from the imperial government] into the hands of the states but there was a little phrase saying “except those of national security importance”, something like that.⁴³⁶ [...] When the military government was in power, there was a decree law in 1971 that said ‘alongside the existing or projected federal highways in the Amazon, 100 kilometers on each side, the state public lands will be transferred to the federal domain.’ So, a decree law of the military regime created a legal loophole for this land to go back to the federal domain. This decree remained in force until 1987.⁴³⁷ In 1987, the land which the federal government collected, took for itself, stayed federal. What the federal government didn't take, went back to the states. And then the imbroglio began. How are you going to know if that land was or not collected by Incra? You have to do what is called a discriminatory procedure. That is, you have to go to the land, identify the area, reconstruct the ownership chain of that area to know if, at some point, the federal government or Incra, which is the federal agency with this attribution, went to the notary office and said ‘notary office, in view of this ownership chain, this is proven to be state land, being state land based on the decree of the military government, now it is ours.’ This is the instrument. Incra did this in some places and didn't do it in others. And then this confusion started. For example, Paragominas. Everybody imagined that Paragominas was federal public land, as it should have been. But Incra did not exactly formalize the land in the notary office so that this land could be

⁴³⁵ BRAZIL. Decree-Law No. 1,164/1971.

⁴³⁶ BRAZIL. Law No. 3,397/1888, article 7, §3º: “Each one of the Imperial Provinces shall be granted, in the same or in several places of its territory, 360.000 hectares of vacant land, to be applied to colonization, or sold to private individuals in lots, previously measured and demarcated according to the system to be established by the respective Provincial Assemblies. The lands located next to waterways, state railroads and those that enjoy guarantee are excluded from this concession; the Government may grant them free of charge to companies or railroads and navigation for the foundation of colony nuclei.”

⁴³⁷ BRAZIL. Decree-Law No. 2,375/1987, article 1: “The current vacant lands located within 100 km on each side of the already built, under construction or projected highways referred to in Decree Law no. 1,164, of April 1, 1971, are no longer considered indispensable to national security and development, subject to the provisions of this article.”

returned, it was effectively proven in the registry based on the chain of ownership that it belonged to the state [of Pará]. What did the state do? It facilitated the land tenure regularization of its areas. That is why today Paragominas has a land situation that is practically all private. Because the state quickly wanted to legalize what were irregular occupations until that moment. This happened in 2009 and 2010. So, notice how it is kind of confusing. The federal government became, let's say, the owner of these areas for this interval of about 15 years. For example, let's take BR 163. In BR 163, Incra effectively collected the land, all that land was federal. So it was easier for the federal government to create conservation units. That's why this coincided with BR-163 and BR-230, called Transamazonic. These two big ones, and the BR-319 also, which goes from Porto Velho to Manaus. There is also the BR-364. Alongside these big highways, land was under federal domain. So it was easier, let's say, to create protected areas. The fact that it was easier doesn't mean it wasn't complicated at the moment. But, let's say, legally, it was the federal government making a decision about a land that is under its jurisdiction, even though there were conflicts within the federal government itself about this. In the Cerrado, there was no such device. We could not work with the idea of a buffer zone. (Interview with a former high-level employee of the Ministry of the Environment).

Political capture of state and municipal agencies by local agribusiness elites

The next statement was given by a federal prosecutor who has worked for more than a decade in the state of Amazonas. He stressed that, from the standpoint of subnational governments, environmental policies are indeed “unpopular commitments,” even though the performance of states and municipalities must be differentiated. The precarious capacity of municipal environmental secretaries, in his view, was not a consequence of limited budget but of a deliberate decision to avoid bringing electoral problems to the mayors. Mayors of small cities, whose economy pivots on illegal deforestation and mining, hardly have political capital to take harsh measures such as destruction of equipment. Conversely, in the states one can see “some work going on.” That notwithstanding, the political use of state environmental agencies would still be a common strategy employed by governors to cause trouble to political opponents, a partisan practice that impairs the agencies’ impartiality, neutrality, and systematicity in implementing coherent policies to combat deforestation.

The more local the sphere of power, the more difficult it is to undertake these commitments that, to tell the truth, are unpopular commitments. I have visited several municipalities, talked to several municipal environmental secretaries. They do not give structure for [the agencies] to work. This is on purpose. It is not because the municipality is poor, it is because it will create problems for the mayor. If the secretariat's employees fine everyone, everyone afterward would knock on the mayor's door and he would lose votes, he would lose the election. So for him it's not worth it. In the state, more or less, you still have some work going on. Sometimes, the governor sends the state agency to the municipality of the political opponent. Sleep with a noise like that: instead of sending where it really should be priority, ‘oh, you're annoying me, you're not doing what I want? I'm going to send an environmental inspector there for you to have political-electoral problems there in your base.’ This also happens. In the federal sphere, you can see that in many places where Ibama is active, there is even a revolt of people against Ibama and the Federal Police, for example, on issues like mining. They come and destroy the equipment, burn it, and people get really angry. Imagine if a mayor from the countryside of the state of Amazonas would have the political capital to support an action like Ibama's in these

municipalities, where many times the economy is based on the extraction of timber and mining. The prejudice is justified. It makes sense. It is logical that the action is weaker the further down you go the federative scale of the Brazilian state. (Interview with a federal prosecutor).

The excerpt below came from a former high-level employee of the Ministry of the Environment. He equally distinguished between the performance of states and municipalities, placing a stronger emphasis on the connections of municipal mayors with illegal activities. In his view, the only way to prevent the environmental agenda from being blocked at the states' level would be for the federal government to sew a stronger political alliance with the governors, often against the interests of local populations themselves.

This is a very reasonable comment, although there are variations. [...] But the comment is pertinent. If you don't have a pact with the governors, it is going to be very difficult for your environmental secretariat to function the way we here in Brasilia would like it to work. Because conservation in itself does not seduce practically anybody in that state. Only a part of the intellectualized people with higher qualifications, who, in theory, are environmentalists and would like to see that. On the other side, there are logging companies, cattle ranchers, the interests of landowners and the population - that is neither one thing nor the other, but is under the influence of the income generated by these lords, - which will not be very favorable to you, either. There will be people who don't have land yet and will say: 'maybe I can have land, maybe my son can have land.' In fact, you have a contrary game going on there. Expanding over the forest is a way of gaining free income, wood, access to land, future production. It is something that tends to be perceived as a possible benefit to society. It is more difficult. Politically, loggers have a lot of power, because they influence deputies. Many of them are deputies, councilmen, or mayors. Logger mayors are very common. In fact, if you don't have a strong seam on top, it won't work well. But many things didn't work at the federal level because they were badly done. (Interview with a former high-level employee of the Ministry of the Environment).

The next statement was made by an Ibama inspector. He attributed the poor implementation of CAR, an instrument that ended up falling under the responsibility of the states, to the lack of interest of local politicians and landowners. The Bolsonaro administration prompted these actors to radicalize: they not only deliberately brought environmental instruments like CAR to a complete halt but also openly encouraged invasions of indigenous lands and conservation units, promising to regularize the invaders' possessions with the prospect of reaping electoral benefits in the region.

The Rural Environmental Registry (CAR) did not have the effect we needed. Nowadays it has been overcome. They are already looking for alternatives and we lost the opportunity. [...] In the Amazon as a whole, no state has managed to do this [implement CAR] until now. There is no interest. And here comes perhaps the big problem why this doesn't move forward: leaders who have an interest in the area are generally connected to this. Our political representatives, local, regional, city councilmen, both in the Legislative and Executive branches, mayors and the state government, have no interest in stirring this hornet's nest. On the contrary. Senators and deputies get on a stage to encourage invasions of conservation units and indigenous lands and it has no consequences. In the end, people feel protected by them. I don't know if you remember [...] an operation we carried out in Pará in the Apyterewa and Bacajá indigenous lands. Colleagues interviewed the people there and asked: why are you here? Don't you know it is an indigenous land? 'I know, but

Senator [...] said that I could come, that they would accept everything there in Brasilia.' It's useless... You can have any law you want, when a local figure gets up on a stage and says that he will back it up, people will invade. (Interview with an Ibama servant).

The subsequent excerpt came from an Ibama servant who worked for years in a state organ in Acre, a tenured position he obtained by approval in formal public exams, not by political appointment. This secure position, which he described as an exception made possible by the effort to professionalize the bureaucracy carried out by governor Jorge Viana of the Workers Party, allowed him to confront and resist attempts to divert the agency's workforce for electoral purposes. He compared Acre's exceptionality with Rondônia, in which there were radical staff reshufflings in the 2000s, very detrimental to the continuity and stability of the provision of public services, and Mato Grosso, in which the selectivity in the use of land regularization instruments had even been object of criminal investigations.

I worked at the state level. Brazilian states are very heterogeneous and, especially in the Amazon, they have a certain fragility. For example, I entered the state government of Acre as a civil servant through public service exams. There were a lot of exams for recruiting public managers, specialists, and teachers; it was a strategy to strengthen public service in the government of Jorge Viana in Acre. This was possible because [until then] there was no strategy to strengthen the state's civil service. We had those old [servants] from before 1988, [recruited] without competitive exams. The structure was filled more with commissioned positions,⁴³⁸ temporary contracts, those tricks to go on recruiting but without restructuring a perennial workforce, let's say, a vision of the state, of working for the state and not for the government of the time. For example, during campaigning periods the director of the agency where I worked opened the door of the laboratory and told everyone to go to the traffic circle to campaign, to wave flags. He felt comfortable saying that because that was how things always worked. I, who had just been approved in a public exam, would look at the guy and say 'sure, wait for me there.' Imagine, for example, Rondônia, I heard about a change of administration in 2006 or 2007, it seems that 90% of the environmental secretariat was changed. So, in the federal model, states have many attributions they must execute. But there is no perennial management structure with a quality level that allows it to function adequately and really gradually fulfill its objectives. These state organs, at least the most stumbling ones, function in a sort of jerky way. A [state] administration that strengthens land regularization gets money from the IDB, hires a lot of people, makes a lot of diagnoses, then advances in the processes, but then finishes the project, appoints a physical education teacher as director of land regularization because he is a friend of the governor's son or whatever, and things get stuck. Then the friends' farms start having priority to be regularized. This is what happens at the state level in states that are stumbling. It is not expected that any of these policies will advance with states functioning this way. I am giving some examples of things that seem like an aberration, but that still happen. Or an environment secretary and his team are arrested by the Federal Police. Mato Grosso, Tocantins, Amazonas, there are a lot of cases like this. In Mato Grosso this happens frequently.⁴³⁹ Because you were fixing the situation of your friends, you were misusing [land regularization]. These policies end up being directed to those who

⁴³⁸ "Commissioned positions" are positions filled through political appointment. We resume the discussion about tenured and commissioned positions in chapter 7.

⁴³⁹ In 2018, the then secretary of environment of Mato Grosso was arrested by the Federal Police for allegedly being involved with irregularities in the CAR system. SOARES, Denise. Secretário de Meio Ambiente de MT é preso após investigações por fraude ambiental (G1, 19 December 2018). Available at: <<https://g1.globo.com/mt/mato-grosso/noticia/2018/12/19/secretario-de-meio-ambiente-de-mt-e-presos-apos-investigacoes-por-fraude-ambiental.ghtml>>. Accessed on 06 January 2023.

sustain the political group, when they bring some benefit. Those who are not part of the political group are not a priority. And if the group is part of a gang, the gang will earn a lot of money in that government. (Interview with an Ibama servant).

The next fragment was provided by another Ibama servant. Her experience confirmed the view that state and municipal environmental agencies end up being more prone to political capture due to a lack of formal civil service exams. At the local level, bureaucracies are usually appointed by the winner of the last elections, thus they usually cannot escape exercising “transitory functions” instead of pursuing long-term policy objectives.

This is notorious. State agencies are more susceptible to political pressure, and municipal ones are even more so. That is why, when there is decentralization of certain competencies, for example, authorizing deforestation for municipalities, it is a great risk. They are much more susceptible. And I think there is also a question of structure. Environmental agencies of the states, health control agencies, agencies that would have to play a regulatory role, many times do not have enough employees, they have commissioned positions. The guy comes in to take on a function in the state environmental agency, or a sanitary control agency, and he is appointed by so-and-so. Thus he has to take so-and-so's agenda inside the agency. This is clear. These agencies also need to be structured, they need to have career civil servants who will exercise a state function that is not a government function, a transitory function. It is a state function, which has to be exercised with medium and long-term objectives. I think this is the difficulty of PPCDAm. It was a state policy but in places where you didn't have state organs, you couldn't advance. (Interview with an Ibama servant).

Pressure from governors against more stringent instruments

The fragment below was provided by a former high-level employee of the Ministry of the Environment affiliated with the Workers Party. He approached the federative issue by addressing a critical juncture in the political pact seen between the Union and the states that created governability conditions for the Lula administration: the sequence of events that led to Marina Silva's resignation. In his view, it was at the moment when Ibama started repressing and tensioning “the forces that were really behind the dynamics of deforestation” that the governors abandoned their initial collaborative attitude and started pressuring for PPCDAm's implementation to be softened. Since governability could hardly be sustained without the support of the more “modern” representatives of the agribusiness sector, Lula “preferred the maintenance of the political pact” and disempowered more repressive command and control actions, leading Marina to resign.

So, the federative pact. It was not an action from Brasilia to the states. It was a horizontal action. Except for certain operations that, for strategic reasons, could not be shared very much. But Ibama never imposed things. This aspect is very important to understand the arrangement that allowed Ibama to fulfill that role. This really happened; it was a very strong empowerment. You know that one of the reasons why Marina Silva left the government was an episode that maybe we can look at [...]. When the then governor of Mato Grosso, Blairo Maggi, came to President Lula and said ‘we can't stand Ibama anymore. They are always here with machine guns; we

want to produce.⁴⁴⁰ [Ibama] created an action of repression, it created tension against the forces that were really behind the dynamics of deforestation, and this generated a political crisis. At that moment, I would say that Lula sided more with Governor Blairo Maggi than with Marina in this specific episode. But this changed everything because from that moment on, Ibama no longer had that protagonism, that centrality. It lost strength as a command and control agency to repress environmental crimes. [...] No government since Brazil's redemocratization has ever governed without the support of agribusiness. And besides being the governor, Blairo Maggi was - still is, but, at that time was even more, - the main exponent of the modern agribusiness sector - 'modern agriculture' in quotes. But, after all, there was a question of political pact behind it as well. When the environmental policy, especially through command and control, started to exert very strong pressure, even though in the previous moment there was a collaborative relationship with the states, some of the more agro-exporting states revolted, and Lula clearly preferred the maintenance of the political pact than to pay for it. At that time, Mangabeira also was already throwing wood on the fire. [...] I think it was the first time Lula went against Marina and this caused a rupture. Because [until then], every time Marina asked, Lula complied. (Interview with a former high-level employee of the Ministry of the Environment).

Decentralization is key; if society demands, subnational states will have to deliver

The next five statements were all given by Ibama servants, and, since they concern the same subject – Complementary Law No. 140/2011 (LC 140) and its consequences for policies to control deforestation, – they were grouped together. All opinions were, in general terms, favorable to the division of competences brought by LC 140, in whose drafting some older members of Ibama were involved. One respondent considered that its design could have been better built: in his view, attaching inspection to licensing jurisdiction was not the best way to divide these attributions. The interviewees acknowledged that even if “interests on all sides block CAR in the states,” some of them – notably Mato Grosso and Pará – advanced significantly in licensing tools.⁴⁴¹ Nonetheless, when it comes to the electorally inconvenient negative agenda of enforcement, states purposefully lag behind their duties.

Problems of political capture and low capacity faced by the states' environmental agencies are not, however, regarded as reasons for recentralization of competences at the federal level. On the contrary, the servants recalled how Ibama once also was an inefficacious agency

⁴⁴⁰ In 2008, Blairo Maggi, then the governor of Mato Grosso, gave an interview to the newspaper *Folha de São Paulo* in which he denied having pressured Lula for Marina Silva's dismissal and criticized the execution of command and control operations against deforestation in the Amazon. In his words: “You take a few young boys, who come from the South and Southeast, give them a police uniform, a machine gun, and he arrives here thinking he is saving the world. He takes a picture and shows to his mother there in the South: ‘I'm saving the Amazon.’ [...] People must again understand that one cannot do an omelet without breaking the eggs. There is the need to occupy the space. You cannot produce any food, in any place of the world, without altering the biomes. We need to give recognition to the importance of agribusiness, from the large properties to family production.” VARGAS, Rodrigo. Com roupa de policial, garotos acham que vêm salvar o mundo (Agência Folha, 26 May 2008). Available at: <<http://www1.folha.uol.com.br/fsp/brasil/fc2605200813.htm>> Accessed on 14 February 2023.

⁴⁴¹ For a comparison between the implementation of monitoring tools by Mato Grosso and Pará see DOS SANTOS, Nathali Germano. *Gestão Florestal Decentralizada: uma análise do processo nos estados de Mato Grosso e do Pará* (Master Dissertation) – University of Brasília 2011.

and, after a long process of incremental capacity-building, became a reference in environmental inspection and licensing. In their understanding, there is nothing inexorable in the vulnerable condition the states' environmental agencies find themselves in today. If Ibama managed to fight internal corruption, recruit good and permanent cadres, develop strategy, and deliver results, why wouldn't the states be able to do the same? The answer to shake states out of their current inertia lies in the expansion of citizenship, here understood as more active participation of civil society and increasing awareness about the consequences of climate change that are already occurring in people's lives. In their view, the pathway forward is to strengthen the federative pact, not to go back to a centralized model.

Respondents were conscious that not all their colleagues shared this same positive opinion about LC 140. Some perceived decentralization as weakening, dismantling, loss of power and prestige. Others doubted the capacity of the states to fill their attributions and resisted the prioritization of tasks delimited to federal competences. Yet, the servants I had the opportunity to interview were confident that, within a situation of democratic normality, it will be a matter of time before the states also see themselves forced to put enforcement into practice. Meanwhile, the Union should continue to carry out command and control operations in a supplementary manner.

When the LC 140 came, we helped to build it. Many colleagues even today are against it. They say 'we are not [fining] the house on the beach? How absurd! Ibama is or is not an environmental agency?' For me, it is an environmental agency. But there is also a municipal environmental agency. The federal one shouldn't do it. Today we are managing to turn things around because we have a very frank, honest debate internally. Those who want to [fine] the house on the beach are very generous people. But the strategic question demands, besides the heart, the brain. It requires organization. [...] Municipal and state agencies have to do their part. Now, how is this going to happen? This is a bet on citizenship. Because Ibama was also immobilized in the past. Before 1989, it was an agency very much like this. Municipal and state agencies will also live with these contradictions. Dialectics will generate, in my opinion, because society will demand. This society, urban Brazil, will demand that there be more public service exams. Public service exams are strategic for everything in the country. To save the municipality from this immobility, inject new people there. People coming from academia, full of enthusiasm, without any commitment to anything from the past there, coming just to enforce the law. And, at the same time, elect parliamentarians that will make quality legislation, not these inefficient transformations that people are inventing. LC 140 was important. It should have been done because it was a piece of the constitution that only generated conflict. The way [LC 140] came out, it established the task of each [federative level]. If everyone does their job well, the country will win. This is my vision. And it happened in 2011. Why did it happen in 2011? Many people were saying: 'Ibama has to combat deforestation in the Amazon.' You see, according to LC 140 deforestation of the Amazon is not a task of the Union. It is the task of Pará, Mato Grosso, Acre, Amazonas. But because it has to show indicators to the world, even to not affect the trade balance, the Union ignored this provision of LC 140. Also because LC 140 allows a gray area where the Union can act alongside the states. In the case of the Amazon this gray zone is clear, there is nothing gray about it. [The Union] has to be there all the time, because state agencies are not structured, because local elites capture them more easily. But not only there. Santa Catarina itself, a state in the South of the country, has serious

environmental problems. The environmental agency is also stifled; the local elite hinders the performance of the state agency. So it is not just in the Amazon, this is a prejudice. The whole country has this problem. Why? Because when you enforce the law, in general, those who are affected begin to work against it. It remains to be seen if [our] side of Brazil, which is the majority, will prevent this from hindering the country's environmental future. (Interview with an Ibama servant).

I think [LC 140] was positive. [...] When Ibama no longer had to have all this capillarity, it empowered state agencies. [...] They have their own forest management systems, their own environmental licensing systems. They have evolved very, very much. Are Pará and Mato Grosso champions of deforestation in the Amazon? Yes, they are champions of deforestation in the Amazon. But [...] they evolved a lot, although in the sense of licensing, not in the sense of inspecting. [...] They have a licensing platform, they have Sisflora, but they didn't evolve in combating environmental crime. This is the big problem and I think this is the next step Ibama has to take to empower the states. [Ibama] needs to let go of this craziness of combating deforestation every year. I like, I love going to operations. Next week I'm going to another one. But most of what we do is up to the states. Primary [competence], right? We do it in a supplementary way. But the responsibility is still in Ibama's lap. [...] Whom does the Brazilian government charge? It charges Ibama. But I think that when Ibama takes away the capillarity, it empowers the state agency. Because then the state agency has to do its own thing. It has to authorize the management plan, license the gas station, because Ibama doesn't do it anymore. Do you understand? Society itself is demanding the agency to do it. [...] The ones who have to help combat deforestation are the state agencies. What do we need to do for state agencies to embrace [the agenda of deforestation prevention and control] the same way they have embraced licensing systems? Charge them and show them that severe climate events, rains, floods, the catastrophes in Bahia and Minas Gerais, are the result of deforestation of the Amazon. (Interview with an Ibama servant).

There was an expectation with LC 140 that Ibama would no longer do what we do in terms of enforcement in the Amazon. Because they thought, 'oh, now everything is going to be the state agencies.' This is a common fallacy. You are a lawyer, right? There were several interpretations that Ibama would no longer act because now it was the states' competence; it was going to be only the states. All of this generated, generates an expectation. 'Ibama will no longer bother us anymore, let's deforest and everything is fine, because the states don't have a leg to stand on to inspect, the state agencies don't have structure.' (Interview with an Ibama servant).

Can you imagine this in the Amazon? If you had to call the federal agency for any suppression of native vegetation? [...] [Ibama] lost this attribution in 2006.⁴⁴² LC 140 consolidated this with the status of complementary law, in a strong way. [...] The only thing is that civil servants feel this. Every office that you close, it's chaos. There is crying all over the place, people don't want to move to the capital, don't want to be transferred. They have been used to living in the small town for many years; Ibama becomes the king of the little town, everything is very complicated. There was a project to close several units when I came in. It was already underway and I continued with it. People complained a lot [...]. But for me it doesn't make sense that you have two people in a small town in the middle of Ceará, to do exactly what? At the very least, you had to have a structure that would make it viable to go out and do inspections, but we didn't even have this. [...] I don't consider it a weakening. Servants went to the capitals when the offices were closed, or to another office nearby. (Interview with an Ibama servant).

Notes: LC 140 was not very well written, because it focuses on environmental licensing while in fact regulating the whole environment framework. Other activities [e.g. inspection] came on the hitchhiking, so the design was bad. State agencies don't

⁴⁴² Law No. 11,284/2006 already transferred some competences related to forest management to the states. Complementary Law No. 140/2011 further consolidated and systematized this decentralization.

do much enforcement: gray agenda, capture of power by local elites. Enforcement drives away voters and votes. The pathway forward is to evolve the federative design. States must be forced to fulfill their competence. Mato Grosso and Pará improved a little, but not much. The problems that CAR has today are not related to the Brazilian Forest Service (SFB) but to the states. If Ibama was the manager of the CAR (initially, in 2013, this was the idea; the Ministry of the Environment wanted Ibama to manage CAR but did not want to provide more resources for the task, so it ended up being transferred to the SFB). The idea was good but it never worked out. CAR was an opportunity to grow and develop; its problems go far beyond the SFB. There is a lot of data in the CAR. Some call it analysis, others, validation: to verify that the self-declared information is reliable. There is money all around to do this, but there are interests on all sides to block the CAR in the states. (Notes taken during an interview with an Ibama servant).

Pressure from subnational states prevents greater integration between CAR and GTAs

The two fragments below came from two federal prosecutors. Both addressed the sensitive topic of the animal transit guides (GTAs) in their answers to the question of the impacts of federalism on environmental policies, albeit from slightly different perspectives. GTAs are documents issued for sanitary purposes by animal health agencies, which are located at the states level and usually subordinated to secretariats of agriculture and ranching. Access to GTA databases could significantly help to identify frauds in the environmental monitoring systems implemented by the slaughterhouses in partnership with Ministério Público, as it would allow traceability of indirect suppliers. Animal health agencies, however, have repeatedly resisted giving transparency to GTA databases, granting only selective access to some institutions (Ministério Público, specific NGOs and companies participating in environmental audits of slaughterhouses, scholars involved in technical partnerships with the states, etc.).

One prosecutor narrated an episode of political interference in the negotiations to link the GTAs with the CAR, something initially suggested by Ministério Público to facilitate the identification of irregular indirect suppliers that sell to audited slaughterhouses. Events such as this made him see the states' initiatives with less optimism: "more rhetorical than effective." The other prosecutor, in contrast, considered the reluctance to publish the GTAs a minor issue and praised the advancements made by the state of Pará and the municipality of Paragominas. Even "having proximity to people that would have an interest in deforestation," their leaders would also be "sufficiently distant to be able to implement certain policies." In comparison to the federal government of Jair Bolsonaro, which acted as an "enemy of the environment and of the traditional and indigenous populations," efforts such as Pará's and Paragominas' should be valued as important spheres of collaboration.

Hope is the last thing to die, to use a very Brazilian proverb here. But then you need political will, right? Because the agribusiness lobby is still very strong. Here, for example, just to mention a very local reality. We have here the director of the Agribusiness Defense Agency, which is the body that deals with animal health and

manages animal transit documents (GTA). He was simply indicated by an agribusiness representative, the president of the Agriculture and Livestock Federation. So he simply consults him about all relevant decisions, including those from the socio-environmental point of view. We even had advanced negotiations to link the GTA to the CAR, which obviously makes perfect sense. You need to know where those cattle are coming from and deliver the information to those who need to make decisions, in this case, the environmental agency. The Agricultural Defense Agency was not even supposed to make this decision. It was simply, in short, to cross-check this information with the environmental agency and respect the decisions made by the environmental agency. It makes no sense, if the area is totally embargoed, for you to continue issuing the animal transit document. Through his intervention, this strategy was aborted. You see this great influence, which ends up hijacking the agenda. There is no time, no energy, no resources left over to encourage other chains and other new enterprises. [...] It ends up being difficult to compete against these people. So, it will be difficult for us to really have this coming from the states. We have an initiative here and there. Amazonas created a sub-secretariat of organic production and agroecology. But they are not consistent initiatives, you know? We don't see this happening in practice. It is more rhetorical than effective. (Interview with a federal prosecutor).

I think that this observation in Brazil is valid, it is true. [...] It is very interesting, and we see this in practice all the time. The only caveat I make is that in recent years this has been inverted by the government of Jair Bolsonaro. The current federal government of Brazil is proving to us the importance of still having the federative model. Because the rule that the federal sphere ends up doing a better job of defending human rights, fundamental rights, is almost always valid, but in extreme situations, as we live today, in which we have a federal government enemy of the environment, enemy of the traditional and indigenous populations, that seeks to do whatever possible to destroy these human rights, we need to count on spheres of resistance. And today the state of Pará has been much more collaborative with the work of Ministério Público and other environmental agencies than the federal agencies. The work of the state of Pará has been fundamental. It is not perfect. We have criticisms, for example, one of them is that they have not put the GTAs on the internet. But of all the things that we could criticize, there are also many things to praise from the state of Pará in the environmental sphere. They have proximity to businessmen, they have proximity to people who would have an interest in deforestation, but they are also sufficiently distant to be able to implement certain policies. And they also have an interest in receiving external investment, which depends on showing good internal results in terms of defense of fundamental rights and environmental rights. The image of Pará today is sold internationally in isolation from the image of Brazil. Although it is the Brazilian Republic that should be the one to do the diplomacy, today we have a situation in which the states need to go abroad and negotiate with foreign governments because the Brazilian government blocks negotiations and makes this difficult. The state of Pará has courageously, we recognize, tried to play this role of fighting for the Amazon Fund, of creating the Oriental Amazon Fund, as it did, and as it is working. It has sought alternatives that are up to it. It could do more, but it has been doing it. Municipalities, no. Municipalities, you can make this the rule even with Jair Bolsonaro. I think that the municipal sphere is always more complicated for you to have this defense of rights provided for in the legislation. The mayor of the municipality is often a logger, farmer, equipment store owner. They still use a very large capacity to influence, with fake news, with false information, and manage to get elected repeatedly with the promise of economic development from degradation, environmental destruction. And people believe this because they have no other knowledge, no other information. They elect and support these people. They support the Fire Day there in Novo Progresso.⁴⁴³ The municipal sphere is very difficult for us

⁴⁴³ On August 10th and 11th, 2019, Inpe detected 1,457 hot spots in the state of Pará, an increase of 1,923% s in comparison to the previous period. The fires prompted the formation of a smother that covered a large part of South America, moving as far as São Paulo and darkening the city's sky in broad daylight, an event later baptized "Fire Day." The Ministério Público investigates denunciations that the Fire Day was a coordinated action by

to deal with. It is not totally impossible; we have the example of Paragominas. Paragominas, in 2012, 2013, was perhaps one of the worst municipalities in terms of deforestation. Then it signed an agreement with Ministério Público. We started there the Green Municipalities program, which still exists today, and it became a model municipality. The environmental management of Paragominas became a model for the entire state. They have a strong, active environmental secretariat, they have equipment, they have systems, they have inspection, they have cooperation with the productive sector, in short, they have implemented a series of policies, stimulated by the state government and Ministério Público, and solved this problem. Now it seems that it is getting worse again, but for a long time, they solved the problem and serve as a model. Today, Green Municipalities has the support of more than 100 municipalities in Pará, based on the case of Paragominas. So we have this hope. But, in general, we have difficulties in the municipalities, a little more support in the state and, in normal times, we would have even more support in the federal government. Before the government of Michel Temer, of course, we sought a lot of support from Ibama, ICMBio, other environmental agencies. It was very good, very important this relationship we had. After [the Temer government] it has diminished. (Interview with a federal prosecutor).

Revolving-door between federal and local agencies; few hires from Amazonian universities

The four statements below were made by former employees of the Ministry of the Environment and an Ibama servant. They illustrate, on the one side, how common it was for actors involved with environmental policies at the federal level during the Workers Party administrations to also participate in the formulation of policies and implementation of institutions at subnational level, either as public servants or as NGO members. This “revolving-door” can be understood as part of what one interviewee critically framed as a “structural export of cadres from the Central-South” to the Amazon region. Bureaucratic or political positions in environmental institutions located in the Amazon would, historically and in the present, be predominately filled by people native from the Southeast (mainly from the São Paulo-Brasília axis), to the detriment of professionals trained in Amazonian universities. With the progressive expansion of university education into the Amazonian hinterlands, such a distortion becomes increasingly difficult to justify and maintain. On the other side, the excerpts reinforce the idea that, during the Bolsonaro government, some states, notably Pará, started to take the lead in environmental governance.

The states have started to act now, recently. For example, in these last three years that the federal government has retreated, the states are acting in a more consistent way. But this organization of the states is recent. When I left [the Ministry of the Environment] in 2008, I went to work with IPAM [Instituto de Pesquisa Ambiental da Amazônia]. Our focus started to be to try to take this debate to the states, to define state plans and targets for controlling deforestation. I did this between 2008 and 2009 in four states: Rondônia, Acre, Pará and Amazonas. (Interview with a former high-level employee of the Ministry of the Environment).

rural producers from Novo Progresso, Pará organized through social media with the purpose to support the flexibilization of environmental laws by Bolsonaro.

I went on to implement the first state agency for public forest management, IDFLOR, which is 15 years old now. [...] Pará was the first state, I don't know if the others managed to do it, I think [maybe] Acre, to create an institute to manage public forests. [...] The state of Amazonas is the most exemplary in terms of the internalization of higher education, but it is also something [that started] 20 years ago. Structurally, the Central-South exports its cadres, including in environmental governance. (Interview with a former high-level employee of the Ministry of the Environment).

Today in the federal sphere there is no such thing as a commitment to sustainability. The commitment of the federal government is to the destruction of the Amazon. So, we have state governments, for example, trying to do it. This initiative of TNC is in cooperation with the state of Pará. This has to be fostered. I think that the state of Pará has the conditions today to obtain foreign resources, even with all the difficulties from the federal government. It has been doing this, trying to promote this type of activity. (Interview with an Ibama servant).

Donation of federal lands to subnational states as a threat to environmental protection

The new two statements came from federal prosecutors. The first one confirms the understanding that the legislative changes inaugurated by Law 11,284/2006 and consolidated by Complementary Law 140/2011 resulted in the decentralization of competences to the states, which do not apply them “with the same rigor.” The second excerpt refers to another decentralization measure: the donation of federal lands to the states. In 2021 and 2022, around 3,9 million hectares of federal lands were donated to Roraima and 1,2 million hectares to Amapá.⁴⁴⁴ Transfer of federal lands to Roraima and Amapá gained momentum under the Bolsonaro government. It helped to boost the electoral campaign of allied politicians such as Antônio Denarium, a staunch Bolsonaro supporter reelected in 2022 for a second term as Roraima’s governor. However, the process actually began under the Workers Party’s administrations, attending to a demand of the states. Amapá claimed to have a comparatively small percentage of their territory under state disposal.⁴⁴⁵ In the case of Roraima, the transfer was announced by the federal government as a sort of compensation for the demarcation of the indigenous land Raposa Serra do Sol.⁴⁴⁶

⁴⁴⁴ ASSESSORIA DE COMUNICAÇÃO SOCIAL - INCRA. Repasse de terras da União para o estado de Roraima é finalizado pelo Incra (2 December 2021). Available at: <<https://www.gov.br/incra/pt-br/assuntos/noticias/repassede-terras-da-uniao-para-o-estado-de-roraima-e-finalizado-pelo-incra#:~:text=Governan%C3%A7a%20fundic%C3%A1ria-,Repassede%20terras%20da%20Unic%C3%A3o%20para%20o,Roraima%20%C3%A9%20finalizado%20pe lo%20Incra&text=Mais%20de%2053%20mil%20hectares,%20de%201%20milh%C3%A3o%20de%20hectares,ao%20Amap%C3%A1>> Accessed on 15 February 2023; NEVES, Larissa. Governo Federal inicia 2º repasse com doação de 1 milhão de hectares de terras ao Amapá. (G1, 8 April 2022). Available at: <<https://g1.globo.com/ap/amapa/noticia/2022/04/08/governo-federal-inicia-2o-repassede-com-doacao-de-1-milhao-de-hectares-de-terras-ao-amapa.ghtml>> Accessed 15 February 2023.

⁴⁴⁵ GOVERNMENT OF AMAPÁ. Amapá recebe transferência definitiva de terras da União” (15 April 2016). Available at: <<https://www.portal.ap.gov.br/noticia/1804/amapa-recebe-transferencia-definitiva-de-terras-da-uniao>> Accessed on 15 February 2023.

⁴⁴⁶RIBEIRO, Jeferson. Lula repassa terras da União a Roraima e diz que está pagando dívida (G1, 28 January 2009). Available at: <<https://bityli.com/wssj2>> Accessed on 15 February 2023.

In 2006 the federal government passed many competencies to the states. The states do not apply [the law] with the same rigor as the federal agency, because of political pressure. The research that is missing now is if state agencies are being rigorous. We know they are not. And some [competences] have even been passed on to the municipalities. The further the political sphere descends, the greater the influence. (Interview with a federal prosecutor).

A new phenomenon is that the Union is giving areas that used to be federal to the states through laws. Many issues that used to be only federal are now in the hands of the states. (Interview with a federal prosecutor).

Not political capture, but lack of technical and financial capacity as the main gridlock

The last two statements were given by a federal prosecutor and a former member of the Civil House of the Presidency. Differently from the respondents quoted above, both placed more emphasis on the lack of fiscal autonomy and technical capacity, instead of on the political capture by local agribusiness elites, as limiting factors to the environmental performance of states and municipalities.

The state of Amazonas has an initiative [of payment for environmental services]. They are timid initiatives, but the truth is that in the structure of the Brazilian federation, the states don't have much money. Most of the money is with the federal government. It is a federalism, a very centralized federation. So the power and the real money are in the hands of the federal government. But the state of Amazonas has it. It works. It's a start, it's not ideal, but it is a beginning. (Interview with a federal prosecutor).

When you say 'states of Brazil' you think they have the same capabilities. They are very different, Piauí and São Paulo, I mean, they are completely different entities. Formally they are states, but they are very different. Municipalities, then... They have no technical capacity, zero, zero. The majority, more than 80% of the municipalities, have zero. Indigence, poor things. And the constitution is based on the formal principle that they are [equal] entities, a crazy thing. What Mangabeira proposed was constitutional reform. Of course, this is very difficult, complicated. The boldest normative horizon would be to reform the constitution in this specific chapter of the federation. But until we accumulate political capital to do this, we have to deal with reality. How are we going to institute cooperative federalism without normativity? Consortiums. We went on a visit to the ABC consortium in São Paulo, which is a previous experience, very interesting in many aspects. They shared but ran into a series of legal and institutional limitations. One of the ways out that Mangabeira saw was this idea, later translated into the idea of consortiums. [...] There is the dimension of political co-optation of local agents, but I think that the question is really technical. Of course, it varies from state to state, [...] there are local idiosyncrasies. But in general technical incapacity is the main problem. A team to do things, to think, to formulate, to articulate. (Interview with a former high-level employee of the Civil House of the Presidency).

Putting together the interviewees' perceptions on the performance of subnational governments in the implementation of environmental policies and instruments, we can conclude that, as a rule, subnational states are more susceptible to political pressure and capture by local elites. As underscored by the respondents, in many regions deforestation finances electoral campaigns of city councilors and mayors, and illegal activities often are what creates and sustains local elites. Conservation is still unpopular among non-traditional and non-indigenous

communities living in and migrating to Amazonian municipalities. Vote-corralling practices by landowners and religious leadership are a reality, which puts the population even more easily against policies that try to induce change in their economic activities. Some interviewees did not put so much emphasis on lack of interest but mentioned the less advantageous financial and technical capacities that subnational governments have in Brazil's current federalist arrangement. Subnational states have a more limited budget, as most of the revenue collected remains in the federal government. Moreover, many have no perennial staff, being operated by a bureaucracy hired through political appointment, not meritocratic recruitment. During the Bolsonaro government this dynamic changed a bit, as some governors, notably that of Pará, started to take the lead in environmental governance to soften the negative impact brought by the complete retraction of federal initiatives.

Table 7: Interviewees' perceptions on the performance of subnational governments

Type of actor	General perspective	Caveats
Former NGO advisor	Most states and municipalities opposed PPCDAm; deforestation finances electoral campaigns of city councilors and mayors; logging and land speculation create local elites	There was positive dialogue with the Workers Party government in Acre, although they also felt intimidated
Former employees of the Ministry of the Environment	Ethno-environmental mosaics were possible in the Amazon because of a decree-law from the military dictatorship that federalized lands alongside highways; this was not the case in Cerrado. Conservation does not seduce anyone at local level; populations are under influence of loggers, who either control or are themselves deputies, councilmen, mayors. No government since Brazil's redemocratization has ever governed without the support of agribusiness. When command and control started to bite harder and the agro states revolted, Lula preferred the maintenance of the political pact. Action by the states is recent, started only with the Bolsonaro government. The fact that the Central-South export its cadres to Amazonian agencies contributes to their weakening	Inca did not register all federalized lands alongside highways; now states are claiming them and there is confusion over ownership in many areas. A pact with governors is unescapable. PPCDAm was not a top-down policy from Brasilia to subnational states; it was a horizontal action, except for strategic operations that could not be leaked. Amazonas is the most exemplary state in terms of internalization of higher education, even though it started only 20 years ago
Federal prosecutors	Deforestation control is an unpopular commitment, the more local the sphere of power, the more difficult it is to	While in the states there is work going on, municipalities are blocked

	<p>implement it. States do not apply the law with the same rigor as federal agencies because of political pressure and have even passed competences on to municipalities; the more local the political sphere, the greater the influence. De-federalization of public lands (transfer of lands from the Union to the states). States do not have much money; most of the revenue collected remains centralized in the hands of the federal government. Agribusiness interests block proposals to link GTAs to the CAR; their influence ends up hijacking the agenda. The states' refusal to publish GTAs is not so relevant; in general the Ministério Público has difficulties in municipalities, a little more support in the states and, before Rousseff's impeachment, even more support in the federal government</p>	<p>by electoral interests. The state of Amazonas has an emerging initiative of payment for environmental services and a sub-secretariat of organic production/agroecology but in general initiatives are inconsistent, more rhetorical than effective. During the Bolsonaro government, some states, notably Pará, have taken the lead in protection of fundamental rights. Municipalities did not follow suit, with exception of Paragominas</p>
Ibama servants	<p>No Amazonian state validates CAR due to lack of interest. Invaders of indigenous lands explicitly mention political speeches encouraging invasion as motivation. State agencies are more susceptible to political pressure, and municipal agencies even more; their bureaucracy is not hired by exams but political appointment. States have no perennial staff to execute policies; even when policies exist, they end up being used to favor allies. Decentralization increased expectation of impunity. Yet, decentralization is necessary and does not necessarily mean weakening. If society demands, municipal and state agencies will organize civil service exams and improve. States must be forced to do their job. There is money to advance CAR validation, but interests in the states block it. During the Bolsonaro government states showed more commitment. Pará tried to raise international resources independently from the Union</p>	<p>The government of Acre promoted public exams and improved its environmental agency. Local elites capture state structures more easily not only in the Amazon, but in whole Brazil. Pará and Mato Grosso evolved a lot in licensing, yet not in inspecting. Expectation of impunity by offenders is frustrated because Ibama is still legally authorized to act in a supplementary way</p>
Former employee of the Civil House of the Presidency	<p>States are very heterogeneous, municipalities usually do not have money or technical capacity</p>	<p>There is political co-optation but the main problems are financial and technical</p>

Source: own elaboration based on interview transcripts.

5.4 Horizontal coordination among environmental and land agencies

Besides the difficulties in strengthening sustainable production, the hegemony of a conservative supermajority in Congress, the greater resistance of subnational entities in taking concrete actions to restrain agribusiness expansion, a fourth gridlock curtailed the efficacy of PPCDAm: the mismatch between the performance of environmental and land agencies at the federal level. The institutional challenge of integrating objectives across distinct policy fields is called in the literature “horizontal coordination,” meaning the concentrated/fragmented distribution of administrative competencies among regulatory structures of equal hierarchy.⁴⁴⁷ Lack of horizontal coordination across environmental and land governance was pointed out by PPCDAm’s documents in relation to two different instruments: the Terra Legal Program, which originally aimed at granting land tenure to smallholders, and the Green Settlements Program, which sought to recover the environmental conditions of rural settlements.

Literature on the results of the Green Settlements Program, both gray and scholarly, is very scarce. Launched at the end of 2012, the program advanced in articulating partnerships with the Ministério Público and authorities of some states and municipalities.⁴⁴⁸ Yet, to what extent it was truly implemented and what were its outcomes still are inconclusive questions. The Green Settlements Program was mentioned only a few times in PPCDAm’s documents of reference and was not spontaneously brought up by any of the interviewees as an instrument relevant to the policy’s execution. Therefore, this subsection will deal only with the Terra Legal Program. The range of issues appertaining to land governance in the Amazon, of course, is much broader than individual smallholder titling. Particularly salient is the question of traditionality and the singular modes of territorial occupation it entails, which resonates with the entire discussion on ethno-environmental mosaics, collective ownership and community-based production processes that we touched upon above in chapters 4.1 and 5.1. However, as PPCDAm’s documents put a stronger emphasis on the contradictions of Terra Legal as policy dilemmas, these will be brought to the center of our analysis of the troublesome intersection between environmental and land governance.

As we saw, the Terra Legal Program was created by Law No. 11,952/2009 with the dual goal of increasing land tenure security for smallholders and reducing deforestation. Its conception and approval were articulated by Mangabeira Unger and a group of scholars supportive of his ideas, who were based on the Secretariat for Strategic Affairs at the time, and

⁴⁴⁷ KNILL; LENSCHOW, *op. cit.*, p. 3; LENSCHOW, *op. cit.* p. 92.

⁴⁴⁸ BRANDÃO JR., Amintas *et al.* Relatório desmatamento nos assentamentos do Estado do Pará. Belém: Imazon, 2013.

its execution was handled by the Ministry of Agrarian Development, within whose structure a Secretariat for Land Regularization of the Legal Amazon was created. Despite not being directly carried out by the Ministry of the Environment, Terra Legal is considered by some scholars a “specialized agenda” within the umbrella of instruments conceived in PPCDAm’s second phase, in the sense that the need to differentiate “legitimate” from “illegitimate” possessions in the Amazon was seen as a crucial step to reduce deforestation in the long run.⁴⁴⁹

Although a clear assignment of property rights is not a requirement to hold perpetrators of illegal deforestation liable (there are other manners to establish authorship than identifying a proprietor, as will be discussed in the next chapter), titling smallholders and family farmers who have long occupied the land was perceived as a way to draw a line between “fait accompli” occupations and those that may still elicit a response from the state. In 2008, the situation of 53% of the Amazonian lands was considered “undefined.” This included private properties with signs of illegality, possessions without legal recognition, undesigned areas, and a lack of consistent documentation of the physical location of rural properties registered in the systems of Incra and local notary offices.⁴⁵⁰

The program’s beneficiaries, in its original design, were occupants of federal public lands who could prove occupation before 1 December 2004 of an area of up to 15 fiscal modules (approximately 1,500 hectares), had Brazilian nationality, did not have any other rural property on Brazilian territory nor received land from agrarian reform and rural land regularization programs before, and practiced agriculture on the area to be regularized.⁴⁵¹ Companies, foreigners, employees of Incra, SPU, and state land agencies were therefore excluded from the eligibility criteria. The land transfer did not require any bidding process: areas of up to 1 fiscal module were donated by the government; areas from 1 to 4 fiscal modules were sold for prices varying from 10% to 80% of the minimum land market price; areas of 4 to 15 fiscal modules were sold for prices determined in Incra’s reference sheet and subjected to special indexes according to location, access conditions, occupation time, and size. Additional areas exceeding the limit of 15 fiscal modules had to be given up as a requirement for the remaining occupation to be titled. Payment could be extended over up to 20 years, with a 3-year grace period. In case of abandonment or payment default, the person lost the land but still was entitled to

⁴⁴⁹ CUNHA, Paulo Roberto. A política pública de regularização fundiária da Amazônia (2009): agenda, alternativas, ambiente político e a controvertida “fábula” do grilo (Doctoral Dissertation) – University of São Paulo, 2018, p. 168.

⁴⁵⁰ BRITO, Brenda; BARRETO, Paulo. Primeiro Ano do Programa Terra Legal: avaliação e recomendações. Belém: Imazon, 2010, p. 9.

⁴⁵¹ BENATTI, José; FISCHER, Luly. New trends in land tenure and environmental regularisation laws in the Brazilian Amazon. *Regional Environmental Change* 18, 2018, pp. 11-19, p. 14.

compensation for improvements. Regularized areas of up to 4 fiscal modules could not be resold for 10 years after regularization was completed or until the last payment was due, whatever happens later. Regularized areas larger than 4 fiscal modules, differently, could be resold after 3 years following titling.⁴⁵²

The regularization process was composed of five phases: enrollment, georeferencing, inspection (when applicable), titling, and post-titling monitoring. Lands claimed within the boundaries of municipalities listed in the Citizenship Territories program and the Green Arch Operation were given priority in the enrollment phase. Georeferencing was carried out by companies contracted by the Ministry of Agrarian Development and then validated by the organ's employees. Georeferencing costs for lands up to 4 fiscal modules were paid by the government, and those for lands larger than 4 fiscal modules were borne by the beneficiary. Regularization of lands up to 4 fiscal modules was exempted from the inspection phase, except if there was an infraction notice for environmental violation or work analogous to slavery linked to the land, if enrollment in the program was done through power of attorney instead by the occupant herself, or if there is conflict on the property. Titling encompassed concession of the right to use and ownership over the land. Post-titling monitoring was set to verify if no resolution clause was breached during the 10 years following titling. It should check, for instance, if environmentally degraded areas within the property were recovered. The policy's global goal was to grant 152,000 land titles and to shorten the average duration of titling procedures to 60 days.⁴⁵³

This first version of Terra Legal was severely criticized by a part of civil society and state authorities as an endorsement of land grabbing. In 2009, just 13 days after the enactment of Law No. 11,952/2009, federal prosecutors filed a complaint of unconstitutionality (ADI No. 4,269) before the Supreme Court, claiming that (i) the policy did not have safeguards against overlapping of regularized areas with territories of quilombola and other traditional communities; (ii) inspection should be mandatory to all property sizes; (iii) environmentally degraded areas should be recovered before titling, not after it; (iv) environmental violations other than deforestation of RL and APP should be considered cancellation causes; and (v) the 10-year period of the inalienability clause should apply to all property sizes. The complaint was decided by the Supreme Court in October 2017, 8 years later. The court ruled the policy constitutional, with a few adjustments in the interpretation of some of its provisions. For

⁴⁵² BRITO, Brenda; CARDOSO, JR. Dário. Regularização fundiária no Pará: afinal, qual o problema? Belém: Imazon, 2015; BRITO; BARRETO, *op. cit.*; BENATTI; FISCHER, *op. cit.*; CUNHA, *op. cit.*

⁴⁵³ BRITO; CARDOSO JR *idem*; BRITO; BARRETO, *idem*.; BENATTI; FISCHER, *idem*. CUNHA, *idem*.

instance, the Court determined that any interpretation that could give room for the regularization of areas overlapping with territories of quilombola and other traditional communities, or any interpretation that resulted in the decharacterization of the modes of land appropriation by those groups, was unconstitutional.⁴⁵⁴

Besides opposition from federal prosecutors, Terra Legal also faced an audit by the Federal Audit Court (TCU) in 2014. The audit report identified the following problems in the policy: (i) low rate of achievement of the titling goals; (ii) failure to prevent risks of land reconcentration, real estate speculation, and disordered expansion of the agricultural frontier; (iii) evidences of irregularity – 9% of the titles already issued were granted to beneficiaries who demonstrably did not meet the program's requirements (either hold a public or private position, were partners in non-agricultural companies or resided in another state), and another 39% of the beneficiaries had signs of non-compliance with the requirements (either were agrarian reform settlers, had another rural property in their name or in the name of their spouse, passed away, obtained most of their income outside the rural property, or did not follow the phases of georeferencing and inspection); (iv) the prices charged for properties from 1 to 4 fiscal modules was much lower than the ones charged for plots in Inca's settlements, and the prices charged for properties from 4 to 15 fiscal modules was much lower than market prices and Inca reference sheets; (v) lack of action to take back properties in case of non-compliance with cancellation clauses (the auditors conducted 47 direct observations and in 13 of them no direct occupation was found, confirming the inexistence of post-titling monitoring); (vi) lack of procedures to take back properties in cases of denied requests; and (vii) lack of accounting records of the operations. The auditors determined the Ministry of Agrarian Development to set up an action plan within 180 days to address these issues.⁴⁵⁵

In addition to the weaknesses pointed out by the Ministério Público and TCU auditors, other shortcomings were identified by the NGO Imazon: (i) limited reach of online denouncement channels, considering the small number of denounces against irregularities received; (ii) lack of enrollment restrictions to prevent different members of the same family of parceling up areas larger than 1.500 hectares; (iii) incongruities in the methodology to define land price and payment conditions; (iv) situations of slave labor and conflict over land could only come to the knowledge of Terra Legal implementers through official databases, which

⁴⁵⁴ BRITO; CARDOSO JR *idem*; BRITO; BARRETO, *idem*.; BENATTI; FISCHER, *idem*. CUNHA, *idem*.

⁴⁵⁵ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Auditoria de conformidade no Programa Terra Legal – Acórdão 627/2015; MENEZES, Thereza. A regularização fundiária e as novas formas de expropriação rural na Amazônia” *Estudos Sociedade e Agricultura* 23(1), 2015, pp. 110-130, p. 111.

were often incomplete due to under-reporting; (v) if land and environmental organs did not respond consultations from the Ministry of Agrarian Development within the unfeasible deadline of 30 days, this is interpreted as tactic consent to regularization, often running over areas that are planned to become conservation units or rural settlements.⁴⁵⁶

Some of the feedback received from TCU and civil society organizations led to changes in the program. A technical chamber to mediate the consultations made by Terra Legal to land and environmental agencies at the federal and state levels was created in 2013; integration with the database on land conflict of Comissão Pastoral da Terra (CPT) was sought from 2010 onward;⁴⁵⁷ Incra committed to donating a forest area to environmental agencies as a compensation for the looseness of environmental conditionalities.⁴⁵⁸

Most of the fragilities, however, could not be easily solved. In 2014, Federal Police and Ibama dismantled a criminal organization specialized in land grabbing in Novo Progresso, Pará, whose advertisement oriented buyers to enroll in the Terra Legal Program and register the property in the CAR as a safe way to obtain a title.⁴⁵⁹ In 2012, the CPT released a report revealing irregularities in land regularizations with the connivance of civil servants in the municipality of Lábrea, Amazonas. The episode resulted in the dismissal of the head of the local division of the Terra Legal Program. Moreover, there were denouncements that large farmers were being prioritized by the enrollment team of Terra Legal to the detriment of smallholders and extractivists, on whom the pressure to sell or leave the land by speculators, ranchers, and loggers intensified even more with the policy's implementation. Pressure to enroll in the program would also have been exerted by employees of Terra Legal, who would be trying to convince communities that until then demanded the creation of extractivist reserves that land regularization was a simpler, faster, and less bureaucratic way to obtain land security.⁴⁶⁰

While some scholars considered Terra Legal (in its original version) as an important first step in the arduous task of ordering what they frame as a chaotic state of affairs regarding land tenure in the Amazon, seeing the appointed weaknesses more as room for improvements than reasons to discontinue the policy,⁴⁶¹ others criticized it for removing from state control public lands that could be potentially designed to the creation of conservation units, recognized as traditionally occupied lands, or destined to sustainable rural settlements.

⁴⁵⁶ BRITO; CARDOSO JR., *op. cit.*; BRITO; BARRETO, *op. cit.*

⁴⁵⁷ BRITO; BARRETO, *op. cit.* p. 39.

⁴⁵⁸ MENEZES, *op. cit.* p. 123.

⁴⁵⁹ BRITO; CARDOSO JR., *op. cit.* p. 63.

⁴⁶⁰ MENEZES, *op. cit.* p. 119.

⁴⁶¹ BENATTI; FISCHER, *op. cit.* p. 18.

From the latter's standpoint, Terra Legal would be an "agrarian counter-reform": by precluding collective land uses and decharacterizing territories previously intended for rural settlements, the policy favors expropriation, facilitates the action of land grabbers, ranchers, and loggers interested in legalizing and increasing their possessions, reserves land for the expansion of the agribusiness frontier, triggers the increase of land prices, and consolidates private property and the formal land market as the only means available to gain access to land in the Amazon. The consequences of Terra Legal would include (i) a rush in the region to extend occupation up to 15 fiscal modules; (ii) expulsion or violent coercion of small producers; (iii) increase of deforestation (since regularization was perceived as a moment preceding a possible intensification of environmental inspection and recovery of degraded areas was not a precondition to titling but a cancellation clause subjected to post-titling monitoring); and (iv) fragmentation of properties among relatives to circumvent the limit of 1.500 hectares.⁴⁶²

Among the critics of Terra Legal was the National Confederation of Associations of Incra Servants (Cnasi), which accused the policy of "promoting agrarian reform as a complementary program to land tenure regularization." As pointed out by Menezes with reliance on Incra's data, "between 2015 and 2016 the number of families settled in agrarian reform projects fell 94%, while the number of titles issued increased 502%." Incra's employees saw Terra Legal as draining financial and human resources, reconverting territories, and co-opting beneficiaries who would otherwise be eligible for agrarian reform policies. While claiming to emancipate and empower smallholders, the program would have intensified land reconcentration, provoked a reduction in the provision of resources to support settlements, and transformed individualized regularization as the only remaining way to access land. According to this view, Terra Legal would follow a completely different logic from that which animated the formation of "an ethnic-environmental mosaic that redrew the map of the Amazon with large portions of public lands that became traditionally occupied lands or lands used for family agriculture," being in fact a point of reversal of this initial process, "by seeking to guarantee that the surplus of the Amazon public lands is legally reserved for the safe, profitable and legitimate expansion of the agribusiness frontier."⁴⁶³

If during the Workers Party administration there was controversy among civil society organizations, state authorities, and scholars about whether Terra Legal rewarded land grabbing or recognized *fait accompli* occupations, these groups were unanimous in condemning the modifications introduced in the program by Temer in 2017 as indiscriminate privatization of

⁴⁶² MENEZES, *op. cit.* p. 118.

⁴⁶³ MENEZES, *op. cit.* p. 13; 129.

public lands. Under the new statute (Law No. 13.465/2017), as we saw, the cutoff date was extended from December 2004 to July 2008, and, in some cases, even December 2011 or 2013; the maximum property size increased from 1,500 to 2,500 hectares, proof of compliance with the Forest Code became merely self-declaratory through CAR, noncompliance with the Forest Code no longer entailed title cancellation as long as the landowner signs a conduct adjustment agreement, and the regularization rules that before were specifically valid for the Amazon were expanded for the entire Brazilian territory.⁴⁶⁴ Bolsonaro, in his turn, changed the program's name to Titula Brasil and, from 2019 to 2022, granted without clear formal criteria nearly 370,000 rural titles, the majority of which in the Amazon. In the Bolsonaro government, titling seems to have followed a logic of vote corralling and favoring local allies.

Based on PPCDAm's documents, the reports on Terra Legal by state organs and NGOs, the findings offered by the literature on land regularization, and information presented in a lecture available on the internet by one of the interviewees, the interview guides included a question on the controversies surrounding the issue of titling. At the heart of the matter there was a clash between two different understandings of rural emancipation and empowerment. On the one side, there were Mangabeira Unger and the group of state employees and scholars supportive of his ideas, who were behind the conception and approval of the policy's first bill in 2009. On the other, there were a group of federal prosecutors, Incra employees, civil society organizations, and other social actors who opposed the proposal. To dig more into the subject, I formulated the question in a direction that could bring this tension to the fore:

From what I understood so far, at the time the Terra Legal Program was being discussed, there was a lot of debate about the role of Incra, whether the agency had the operational capacity to title a large volume of requests, and whether its staff wouldn't resist implementation because many servants were against regularization. Mangabeira would have proposed to extinguish Incra or create another organ to supplant it, transferring its competences. Dilma would have arbitrated the conflict suggesting a compromise solution of not extinguishing Incra but creating the Extraordinary Secretariat for Land Regularization within the Ministry of Agrarian Development to handle Terra Legal. Did you participate in this process? What was your vision at that time?

The actors to whom I posed this question were either former employees of the Secretariat for Land Regularization of the Legal Amazon within the Ministry of Agrarian Development, the Secretariat for Strategic Affairs, or the Ministry of the Environment, some of which were also affiliated with the Workers Party. I did not interview any employee from Incra (despite it being also an agency subordinated to the Ministry of Agrarian Development). Therefore, the excerpts transcribed below are considerably one-sided, and the interpretations

⁴⁶⁴ CUNHA, *op. cit.* p. 125-126.

drawn from them are admittedly limited. That notwithstanding, they provide interesting insights on how this clash between two different understandings of rural emancipation and empowerment – described by Cunha as “a battle for jurisdiction inside the Workers Party government”⁴⁶⁵ – was perceived by key actors involved in the implementation of PPCDAm.

The first two fragments were provided by a former employee of the Ministry of Agrarian Development who worked in the Secretariat for Land Regularization of the Legal Amazon created to execute Terra Legal. In his view, the duplication of functions proposed as a compromise solution to settle the conflict for jurisdiction within the Workers Party government worked for a while, but in general was very poorly designed. The program ran through both the Secretariat and Incra, intensifying the atmosphere of competition between the two organs for the same agenda.

I worked at the Secretariat for Land Regularization of the Legal Amazon, which was exactly that, an attempt to solve the problem. Since Incra was resistant, let's create an agency for this. So the secretariat was created. But the arrangement established to run the program was, to me, very bad. Because at the same time it created the secretariat, it did not take away any other competence from Incra. So we had a secretariat, which was direct administration, as we say, Executive Power *stricto sensu*, a secretariat within the Ministry of Agrarian Development. But there was also a Superintendency of Land Regularization inside Incra. So, the operation of the program continued to pass through Incra. It was not segregated. We created a monster, you know? Because there was an extraordinary secretary with a political mandate for regularization. We created a very crazy design, kind of duplicating the structure. It ended up working for a period. When you had this crazy design of two organs competing for the same agenda, if you have the right people, either it works better or it doesn't work. There was a time when it worked better and there was a time when it didn't. (Interview with a former employee of the Secretariat for Land Regularization of the Legal Amazon).

From his standpoint, Incra would hold two very different competences: agrarian reform and colonization, on the one hand, and management of public lands, on the other. Such concentration would prevent the agency from performing either one well, something that was perceived and acknowledged by high-rank members of the Workers Party. Yet, a dismemberment of the Incra's competences would stir up conflicts within the party and the agrarian movement and therefore was not set into motion. Disputes that followed the creation of the Terra Legal Program would only have made this latent problem explicit.

You can't solve Incra's problem in just a few administrations. [...] Incra, as such, should really be restructured, because it has two great attributions that, although they both deal with territory, are distinct. One is colonization and the so-called agrarian reform, that is, to distribute land ownership in a way that reduces social inequality. That is what Incra is for. The government has two mechanisms at its disposal: one is agrarian reform. You take a large property and divide it up among small properties. The second is colonization, you take a piece of land and put settlers on it. This technique, this logic of putting settlers inside, was abandoned because the Amazon

⁴⁶⁵ CUNHA, Paulo Roberto. A política pública de regularização fundiária da Amazônia (2009): agenda, alternativas, ambiente político e a controversa “fábula” do grilo (Doctoral Dissertation) – University of São Paulo, 2018, p. 260-265.

experience did not work. Maybe today Brazil doesn't need colonization anymore, but it needs agrarian reform. The other function is managing public patrimony, land management. This is an attribution that does not necessarily need to be within the same organ because they require different skills. [...] All this is mixed inside the agency. What happened with the creation of the Terra Legal Program simply revealed this problem. Dilma wanted a proposal to reformulate Incra. But this proposal did not come. Why not? Because restructuring Incra also means changing the power structure of a very powerful agency. It is an agency responsible for property. And I think that the internal disputes within the Workers Party, within the Brazilian agrarian movement, prevented this strategy from winning. On the other hand, the agribusiness didn't have much interest in this. Why would you want an agency that is efficient in the creation of settlements, if it is fine the way it is? (Interview with a former employee of the Secretariat for Land Regularization of the Legal Amazon).

The statement below was given by a former employee of the Ministry of the Environment who was involved in the drafting of Decree No. 6,321/2007. His interaction with Incra was mainly circumscribed to the topic of re-registration of rural properties in critical municipalities, a measure established in the decree with a view to making it harder for illegal loggers to obtain formal credit by presenting property titles. The magnitude of human resources, time, and money required by this task assigned to Incra would have aroused the indisposition and resistance of its staff, especially because the agency did not participate in the drafting of the decree.⁴⁶⁶ Moreover, the interviewee did not see Terra Legal exactly as a “specialized policy” within PPCDAm, as I conjectured at the beginning of this section following Cunha’s proposition.⁴⁶⁷ He rather described them as “parallel agendas,” policies with points of convergence but executed by different ministries. Given how frequently the issue of land regularization is cited as a central instrument to reduce deforestation by PPCDAm’s documents of reference, – and how strongly deforestation prevention and control was mobilized as a justification to approve Terra Legal,⁴⁶⁸ – the connection between both agendas may have been more rhetorical in a moment of policy formulation than operationally relevant in the day-to-day of policy implementation.

Incra was quite resistant during the whole process because it is an agency, it was already at that time, relatively weakened. Politicized. Because the national Incra is one thing and the Incra in the states has a certain political composition. Who nominates the state superintendents, the management positions in the states, there’s a political factor, of regional political articulation. Sometimes Incra’s leadership defines something and it doesn't go down. Incra had to make a huge effort to implement what we were proposing. For example, we proposed a general re-registration of rural properties in critical municipalities. In those 36 municipalities, all holders of property or possession had to go to Incra to re-register. This is almost a war operation. Everything has to stop, the guys have to really set up their stall there, receive [the requests], redo [the registrations]. At that time, we didn't have everything we have

⁴⁶⁶ Information given by another interviewee (former employee the Ministry of the Environment), who criticized the re-registration proposal for “confounding environmental regularization with land regularization.” He admitted that, if Incra had been heard in the drafting process, Decree No. 6,321/2007 “would have never passed.”

⁴⁶⁷ CUNHA, *op. cit.* p. 168.

⁴⁶⁸ CUNHA, *idem.*

today in digital terms, it was all paper. So, Incra was very resistant and it started to have to do the ‘sweeping,’ as we called it, the rural environmental registration of small properties. This is a heavy, expensive, costly and difficult movement to do. Incra was very resistant. Regarding the issue of land title regularization, I remember that the Terra Land program was being discussed at that moment and it was an important factor. But it kind of ran in parallel, you know? It was an agenda of the Ministry of Agrarian Development in which the Ministry of the Environment had an opinion. The PPCDAm, on the contrary, was an agenda of the Ministry of the Environment which the Ministry of Agrarian Development had to support; it is inverted. (Interview).

The next three fragments were provided by an individual who was a former employee of the Ministry of the Environment and a member of the Workers Party. The unresolved challenge of Terra Legal, in his view, was a certain incapacity of building safeguards, “anchors,” to prevent the policy from becoming solely a way to incorporate land into the formal market. If the policy managed to “properly change the land ownership structure and consolidate a new middle class of producers that, with technical support and research, develop a family agriculture compatible with the characteristics of the Amazon biome,” then it would have been a positive “instrument of transformation of the economic matrix of the Amazon toward a model of sustainable production.”

Terra Legal is a program that deals with the destination of public lands. According to the Constitution, the destination of public lands has to be linked to agricultural and agrarian policy. So, the first question is this. Did the Terra Legal correspond to an agricultural and agrarian policy for the Amazon in particular - today, the Terra Legal is for all of Brazil, but at the time it was only for the Amazon - or was it simply a land transfer program? [Did it aim] to recognize the legitimate right of those who owned [lands] or also to meet the demands of other sectors for expanding the agricultural frontier? Terra Legal lacked an anchor that could make it an instrument of change of the economic matrix of the Amazon toward a model of sustainable production. The Terra Legal, in the way it was being implemented within our government – it is a kind of self-criticism - would be serving much more to incorporate land into the market than to properly change the land ownership structure and consolidate a new middle class of producers that, with technical support and research, could develop a family agriculture compatible with the characteristics of the Amazon biome. Today, looking back, we have gotten much worse because, at the time, at least the priority was the small and medium-sized ones, the squatters, who had up to four modules. Today, Terra Legal has practically become a titling instrument. Title, title, title, uncoupled from any other policy. So if there were already flaws at the origin, now it is solely and exclusively a transfer of public lands to private initiative, precisely in a very exacerbated logic of opening up the Amazon once again for the expansion of the agricultural, farming frontier. (Interview with a former employee of the Ministry of the Environment).

Continuing with the explanation about why he believed land titling could have generative effects toward the organization of sustainable production and consolidation of a middle rural class in the Amazon, the interviewee brought to the conversation the argument that, because of the consequences of the conservative modernization carried out in Brazil during the military dictatorship, agrarian reform could not be any more justified as a fight against unproductive latifundium. The branches within the Workers Party that exerted more influence

on Incra at the time opposed the idea of consolidating a rural middle class through individualized regularization. Yet, to not lose control over the agenda, a part of the leadership agreed to collaborate with Terra Legal and tried to attract it to Incra by advocating that, with more resources, the agency would be up to it. Mangabeira and his team, in their turn, were radically against assigning Incra's staff to implement the program. Another point of disagreement between them was mandatory on-site inspection. Whereas Incra insisted that on-site inspection for properties of all sizes was essential, Mangabeira and his team thought this would result in the complete obstruction of the policy's goals and restricted hypotheses in which it was mandatory.

I've always been a bit of a Mangabeirist, but more for his philosophical system than for his politics. That book *False Necessities* is a libel. He says the following regarding the issue of land ownership: [we have] to assign a real owner, as people say, with an address and a CPF [personal identification number]. We need to create an agency to do this, because Incra is a vitiated, heavy, bureaucratic agency, with corruption too, in part that is true, and with an ideology still very much rooted in a vision of agrarian reform that is no longer the modern vision, you know? 'Against the unproductive latifundium.' Brazil no longer has them. Brazil is one of the few capitalist countries that modernized without making agrarian reform. Europe did agrarian reform, Japan did agrarian reform, the United States did agrarian reform, Brazil did no agrarian reform and advanced in capitalism. We don't need agrarian reform to develop capitalism, this is the central thesis. Why [would we need] an ideologized, bureaucratic, corrupt Incra? - I am exaggerating - So let's do away with this agency, create another and title everybody. In this sense it is close to what the current government is doing. This was the struggle. There was a lot of resistance, not only from the Workers Party, but from branches within the Workers Party that dominated, at the time, the Ministry of Agrarian Development, to which Incra as an agency was subordinated. It was a fight between internal political forces. It is one thing to confront Marina against Blairo Maggi. It is another thing to face the political forces of the Workers Party. The corporate, political, and ideological defense of Incra was imposed, - without making here any judgment - with the argument that if the government gives Incra the instruments, Incra would do it. It was not doing it or was doing it very slowly. Because in order to allocate a little piece of land you have to go there, georeference the whole land with a precision device. In other words, you have to go into the field, make tracks and enter the rivers, the forest. You have to georeference every single parcel, and only afterward give the title. They said, 'No, this does not exist. Let's just take it and give the title to whoever is there and the conversation is over.' This was the defense: if you didn't institutionalize land ownership in the form of a title, of an official document, so that these people could have access to the credit and technical assistance system and even be held responsible for environmental damage, there would be no way to reverse it. Mangabeira's idea was to really create a middle class in the countryside from this land titling process. But he didn't get one thing and Incra didn't get the other. We continued with Terra Legal without much result, and the problem of land designation continues. (Interview with a former high-level employee of the Ministry of the Environment).

The outcome of this fight of internal forces within the government's coalition was, in the interviewee's understanding, a tie. Both sides were able to block each other and the situation of undefined lands was not solved. By the end of the Workers Party administration, there were

still around 56.5 million hectares of undesignated public lands in the Amazon.⁴⁶⁹ He contested the idea that the ruralist sector was in favor of Terra Legal and the Ministério Público opposed it. In Pará, for instance, the program had the support of public prosecutors and the state government, whereas agribusiness associations raised a “crusade” against it.

Terra Legal had support from Ministério Público and even from the government of Pará. But the organization of large landowners, the Pará Federation of Agriculture and Livestock, the Pará Federation of Agriculture, they made a national crusade against the Terra Legal, because they felt harmed insofar as the Terra Legal first had limits. In the beginning, 4 fiscal modules; then 1,500 hectares, and finally 2,500 hectares, which is the limit allowed by the Constitution. So, today, if you are inside a land there and say that it is yours, this government goes there and gives you a property document of up to 2,500 hectares. If it is up to 4 modules, without any inspection. Above 4 modules, you have to have an inspection, but it can be done by satellite, you don't have to go there. Now there is a bill that is going to be voted on in the Senate, the 510 of Kátia Abreu's son, Irajá, that increases the concession of the title without inspection to 2,500. You don't need anything. You just need to declare yourself as the owner. If nobody complains, you already have an automatic title in the automatic system. That's what his project is. It is really a brutal process of privatizing the public patrimony in the Amazon. (Interview).

The two last excerpts came from a former employee of the Secretariat for Strategic Affairs. He claimed for himself authorship of the program's initial suggestion and attributed to Mangabeira, together with the Amazonian governors, the role of policy brokers, especially in the task of convincing Lula. He saw a part of Incra's employees as representatives of a “completely lunatic extreme left,” who ignored that in the Amazon, especially in regions of new frontier, an intense, informal, and uncontrolled land trade had already been a reality for a long time. Regularization, in his view, would simply give legal recognition to smallholders whose possibilities of insertion in the credit market were limited by the lack of title. Land reconcentration, expropriation of family farmers, intensification of speculation, many of the problems that Incra's employees identified as resulting from the Terra Legal Program would have already been happening in the Amazon way before the policy was implemented.

I participated [in the Terra Legal program] to a certain extent. I was the author of the suggestion to Minister Mangabeira, who absorbed it and sewed it together with the Amazonian governors. He and the Amazonian governors managed to convince Lula. I don't know if you know Lula. Lula is like this: he gives with one hand and takes with the other. So maybe he arbitrated in favor of land regularization, but then, once the law was approved, which was a law full of guarantees, [...] Lula handled it to the enemies of land regularization, which was Incra. The main enemy of land regularization is Incra. Incra had a completely lunatic extreme left that came up with arguments like ‘they are opening the doors for the expansion of capitalism in the Amazon. [...] This is going to make land trade possible’ - a comment from someone who knows absolutely nothing about the Amazon. If you go anywhere in the Amazon today, you went to Redenção. And Redenção is already an old frontier, I knew it when it was starting; today it is old, consolidated. When it is consolidated, it has fewer sales.

⁴⁶⁹ MOUTINHO, Paulo *et al.* Destinação de Florestas Públicas: um meio de combate à grilagem e ao desmatamento ilegal na Amazônia. Brasília: Amazônia 2030, 2022.

If you go to a new region, which was a frontier 5 years ago, 10 years ago, there are sales all the time. Because in the Amazon, mainly the small ones, they give up much more easily. Either they give up or they have a strategy [...] of capital formation here to later advance there, which has nothing to do with the land regularization bill. [...] Sometimes one or another parliamentarian, one or another rural worker union, overly ideologized [was against], but the great majority was completely in favor. You can see the anguish of the person who has no title. The person who doesn't have a title doesn't have security, can't give anything as a guarantee to get cheap credit. Then the credit that is obtained is informal, very insecure, very risky. (Interview with a former employee of the Secretariat for Strategic Affairs).

The real reason for Incra's resistance, according to him, was fear of losing power over territories, settlements, and beneficiaries in the Amazon. Granting full ownership titles for smallholders - "emancipating a settlement project," in his words - meant less budget, less prestige, and fewer job positions to Incra's bureaucracy, which would have grown accustomed to holding "plenipotentiary" powers in the Amazonian states. He illustrated his point by referring to the case of Rondônia. When the state was created, two of the three senators elected were Incra employees, and the third had a background in working with Incra; between one-third to half of Rondônia's first batch of elected deputies were Incra technicians; and many mayors successively reelected in the state were former coordinators of Incra settlements.

Incra doesn't want to do land regularization mainly because when Incra does it, Incra ceases to exist. If you go to the Amazon in places like Rondônia, this was incredibly clear. [...] Incra gives you a license to stay on your lot or Incra takes away your license to stay on your lot. Then you have to fight with Incra. Nobody wants to fight with Incra. Incra is too powerful, Incra says yes or no. Incra never emancipates a person. Incra never emancipates a settlement project. Why doesn't it emancipate a settlement project? Because then it has a settlement project to take care of, it has servants that will earn their salary working there. It will have people here in Brasilia to say 'we have such and such a project there, we have a lot of projects and we need budget for this, we need a budget to improve the road there.' Because Incra is responsible for the project, the infrastructure, support. This means money for the bureaucracy. And this bureaucracy doesn't want to lose this. [...] In the Amazon the Incra is plenipotentiary. In Rondônia it elected two of three senators, half of the bench. Several mayors were former managers of colonization projects there.

When the compromise solution of handling Terra Legal to Incra to calm down internal party forces was proposed, as the interviewee's reconstruction goes, Mangabeira protested. Hence the idea of creating a separate structure within the Ministry of Agrarian Development. The servants assigned to work in the newly created Secretariat for Land Regularization of the Legal Amazon, however, came mostly from Incra's cadres. This maneuver motivated the interviewee's description of Lula's negotiation style as "giving with one hand and taking with the other" [dar uma no cravo e outra na ferradura]. Four days after Lula signed the promulgation of Law No. 11,952/2009, Mangabeira resigned from his position as head of the Secretariat for Strategic Affairs and left the government.⁴⁷⁰

⁴⁷⁰ CUNHA, *op. cit.* p. 264.

Nobody from Incra wanted land regularization. The biggest enemy. So when they said 'give this to Incra,' Mangabeira got pissed off. He came to Lula: you can't give this to Incra, Incra is against it. Lula realized that Incra was against it, but he played the game. Then Lula conceded and created something else. They created the Terra Legal Program. But who comes to work in Terra Legal? Only Incra. So there were people from Incra in the Terra Legal. All the bosses were Incra employees, now working in Terra Legal. Officially it is not the same thing, but it is the same thing. [...] Incra raised a thousand excuses. The main one, which generated a huge delay, was the following. We need to do the georeferencing of the land. Because all the federal land collected in the Amazon by Incra, in reason of the Decree-Law No. 1174, was all measured, but it was measured with a theodolite, with a large margin of error at the time, to be able to do a feasible work under those conditions, this was the 1970s. The [Incra] guys said, 'We need to do this again, it's difficult with geodesic precision, we need such equipment, the regions are distant. [...] We don't have people to look and inspect, we have to inspect in loco.' Wow, I fought so hard for there not to be an on-site inspection of all the plots. Imagine that. We had to deal with, I don't know, 150,000 occupations in the Amazon. An on-site inspection in each one of them? You can look at a satellite photo, and with a single visit you can see if there is conflict between occupants, if there is no conflict and it is within the limit, that's it. Then you had to measure your own guy's land. The synthesis is from Mangabeira. Lula handed over land regularization to the enemies of land regularization, after granting land regularization. (Interview with a former employee of the Secretariat for Strategic Affairs).

The version of the facts narrated by the interviewee above must be taken with a grain of salt in some aspects. In his doctoral dissertation about Terra Legal, Cunha demonstrated that the first draft of Law No. 11,952/2009 was actually a copy from a bill that had been proposed the year before by a ruralist federal deputy affiliated with PMDB, who had occupied a leadership position in Incra in the municipality of Marabá, Pará. Cunha also showed that the policy's text was not the work of a single person or agency but received contributions from a manifold of actors and organs, including high-rank servants from Incra who were supporting the initiative. The latter had more qualified information and technical expertise on the matter than the servants from the Secretariat for Strategic Affairs and played an essential role in the drafting process.⁴⁷¹

The "entrepreneurial action" of individuals working at the Ministry of Agrarian Development and the Secretariat for Strategic Affairs was an important condition for Terra Legal to come into existence. However, as pointed out by Cunha, it was the previous accumulation of multiple fronts of pressure demanding land regularization, on the one hand, and the resignation of Marina Silva and part of her cabinet from the Ministry of the Environment, on the other, the necessary conditions for the program's approval. Silva strongly rejected the idea of subsuming under PPCDAm's axis of land and territorial planning proposals aimed at regularizing areas larger than 500 hectares, and, while she was in the government, suggestions in this direction remained marginal. Her vision for PPCDAm's axis of land and

⁴⁷¹ CUNHA, *op. cit.* p. 253-254.

territorial planning was not centered on individualized titling but on the creation of more conservation units of sustainable use, favoring collective land use by traditional populations.⁴⁷²

In policy evaluation processes, Clune contends, “it is commonplace for groups and causes that are initially detested to achieve moral respect in the end.”⁴⁷³ Today, more than 10 years after the creation of Terra Legal, there is a growing body of literature showing that ethno-environmental territorial mosaics, not individual titling, was what contained the bulk of deforestation.⁴⁷⁴ History (and science), one could say, have vindicated Marina Silva and proved her ideas right. Not for nothing, she was invited to be part of the government in Lula’s current third term and today leads again the Ministry of the Environment. Stating that clearer individual land property rights are not sufficient to discourage deforestation, however, is not the same as saying that regularizing land ownership of smallholders is a failed and undesirable policy goal *per se*. Individual titling is not necessarily a synonym of eradication of collective modes of land occupation. With sufficient precautions to prevent land reconcentration, there is room for a middle class of family farmers dedicated to agroecology to coexist with traditional territories and rural settlements supported by Incra. Completely neglecting the demand for individual titling could have the dangerous effect of pushing small- and middle farmers further to the extreme right, a political miscalculation that policymakers in Brazil cannot afford to make.

⁴⁷² CUNHA, *op. cit.* p. 299.

⁴⁷³ CLUNE, *op. cit.* p. 93.

⁴⁷⁴ PROBST et al., *op. cit.* p. 1019; OKIDA et al., *op. cit.*

CONCLUSION OF PART I

Part I sought to reconstruct the main policy conflicts, watershed decisions, and punts that mark the story of PPCDAm's formulation and implementation. The elements outlined by Clune as constitutive of policy processes, that is, reformism, interactionism, recursiveness, and long-run development, were present. PPCDAm was the outcome of political struggle between social groups and unfolded as a continuous, circular process of mutual adjustment among interested actors. Its trials and errors led, in a first moment, to incremental learning and efficacy gains, and, in a second moment, to open dismantling linked to electoral backlash.

Territorial planning and intensification of the state's presence in the Amazon had already been demanded by social movements at least since the 1970s. The arrival of actors with a background in social movements in governmental positions after Lula's first electoral victory, combined with events that attracted media attention such as the murder of activists and the second historical peak of deforestation, prompted Marina Silva and her team, with special credit to João Paulo Capobianco, to elaborate the plan. While Silva secured a solid bridge with civil society actors, who were invited to participate in workshops and actively contribute to building the policy, articulation between the highest level of the federal government and among different ministries was brokered by José Dirceu. An old problem finally found the conditions to enter the government's agenda with high priority. Other comprehensive policies for the Amazon were created in the 2000s, but the one that survived and gradually absorbed the others was PPCDAm.

PPCDAm's creation was enabled not only by the political will sustained by some of Lula's ministers, but also by the existence of a reservoir of mature policy proposals generated by civil society, ready-at-hand to be tested. Phase I of the plan was marked by the massive establishment of conservation units and demarcation of indigenous lands in critical or conflict zones, a "solution" drawn primarily from material handled by Amazonian social movements to government actors. Arranged in a network of protected areas, these especial land modalities formed ethno-environmental territorial mosaics that worked as a cordon sanitaire against the advance of the agricultural frontier over the forest. In Phase II, the creation of ethno-environmental mosaics was more residual, while monitoring and control continued to be enhanced, among which the development of satellite systems and the planning and execution of inspection operations stand out.

Lula's decision to transfer the coordination of PAS to Unger to please the Amazonian governors weighed on Silva's decision to resign. Her resignation opened the way for individual land titling under Terra Legal to gain traction. Different views on the desirability of collective

land ownership and traditional modes of production constituted perhaps the greatest internal conflict between the distinct groups of policymakers that were put together to design and concretize PPCDAm. One of the main dilemmas of bioeconomy is precisely how to conciliate nature's pace with the economy-of-scale logic, promoting the economic viability of sociobiodiversity products by democratizing access to them, not elitizing their consumption.

It was during Phase III that the policy delivered its best results. In 2012, deforestation reached its lowest rate, 4,571 km², an 80% reduction in comparison to the 2004 rate of 27,772 km². One year later, PPCDAm took a hit with the transfer of its executive coordination from the Civil House to the Ministry of the Environment, a change that weakened the decision-making power of its interministerial working group. Phase IV, already conceived in the context of budget constraint that succeeded Rousseff's impeachment, was less ambitious in scope and had to adjust the monitoring of its activities to the institutional limitations brought by the new political circumstances. In 2019, PPCDAm was terminated by the Bolsonaro administration, which drew electoral support from interest groups that profit from deforestation. The plan was reinstated in 2023 after Lula's third presidential victory and is currently in its fifth phase.

When we look at the plan's instruments, their efficacy oscillated between the low success of the "fizzle" and the transformative potential of the "compromise." While one can read the creation of ethno-environmental mosaics and the enhancement of monitoring and control tools as victorious examples of accommodations that made progress in changing reality, the manifold of initiatives designed to strengthen sociobiodiversity supply chains, as well as the decentralized arrangements that demand capacity from subnational organs to be functional and inter-institutional competition for the final say on land allocation, can indeed be qualified as "preordained fizzles." To be consolidated, a positive agenda needs not only more time and funding but also the gradual deconstruction of the existing array of public and private incentives to ranching and monocrop agriculture. To attain operational capacity, subnational organs must recruit new civil servants through examinations and under a tenured regime. Budget-impacting measures like this need societal backing to gain momentum, which in turn requires awareness of the threat posed by climate change and a positive view of public service by society. The land regularization program was designed by supporters of individual titling of *fait accompli*, *bona fide*, and small occupations, but its implementation was given to a bureaucracy that privileged collective settlements as the most suitable mode of territorial occupation for the Amazon.

Despite the many flaws and oppositions that limited the policy's success, the legacy of PPCDAm is one of positive institutional learning in how to reduce tropic deforestation amidst the rush for commodities such as gold, timber, soy, and beef that has intensified with economic

globalization. In ten years, actions gestated within PPCDAm shrank deforestation by 80%. Although from 2014 onward the rates started to grow again (even if without ever coming close to 1990s rates), this sharp initial decrease was no trivial achievement. Rather than a product of enlightened consumer markets or the solitary work of activists against the ill will of corrupt bureaucrats, the drop in deforestation was mainly the outcome of multiple state interventions by public organs in cooperation with civil society forces. The implementation story of PPCDAm is far from finished, as new challenges and proposals continuously emerge and the problem of land-use change in the Amazon evolves in response to a mutating context. Yet, the events that make up the policy's first four phases still constitute a rich reservoir of institutional knowledge and governance experience that can inform future transformative action in the Brazilian Amazon and elsewhere.

Table 8: Elements of PPCDAm's legal-institutional framework

Official name and goal	Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal – reducing deforestation in the Amazon
Responsible administration	Workers Party
Normative base	National Environmental Policy (Law No. 6,938/1981); Forest Code (Law No. 12,651/2012); Decree No. 6,321/2007; Decree No. 6,514/2008; Resolution No. 3,545/2008, Resolution No. 4,327/2014; among other norms
Governance structure	Executive, consultative, and transparency spheres. Executive sphere was composed of the interministerial working group; the executive committee; the mixed committee for joint implementation; the thematic subgroups and the conciliation chambers. Consultative sphere congregated the Forum of Governors of the Legal Amazon; the Forum of Environmental Secretaries of the Legal Amazon; the Brazilian Forum on Climate Change, and the Sustainable Amazon Region Forum. Transparency sphere materialized in the annual Technical and Scientific Seminar on the Analysis of Prodes Data. Coordination was held by the Civil House of the Presidency until 2013, then by the Ministry of the Environment
Main governmental actors involved	Civil House of the Presidency; Ministry of the Environment; Ministry of Science and Technology; Ministry of Agricultural Development; Ministry of Agriculture, Ministry of Mines and Energy; Secretariat for Strategic Affairs of the Presidency; Inpe; Ibama; Embrapa
Main civil society actors involved	Amigos da Terra; Conselho Nacional dos Seringueiros; Coordenação das Organizações Indígenas da Amazônia

	Brasileira; SOS Amazônia; International Conservancy; Confederação Nacional dos Trabalhadores na Agricultura; Greenpeace Amazônia; Grupo de Trabalho Amazônico; Instituto Centro de Vida; Imazon; Ipam; Instituto Socioambiental; The Nature Conservancy Brazil; WWF Brazil
General division of competences among the Union and subnational entities	Municipalities are responsible for licensing and inspecting activities or undertakings that cause or may cause environmental impact at the local level. Union is responsible for licensing and inspecting activities or undertakings located or jointly developed in Brazil and a neighboring country, on indigenous lands, in two or more states, of military character, or intended to mine radioactive material. The states are competent for licensing and inspecting all remaining activities or undertakings that use environmental resources in a way that is effectively or potentially polluting or capable of causing environmental degradation in any form
Scale	Regional scale (States of Amazonas, Mato Grosso, Pará, Acre, Tocantins, Amapá, Rondônia, Roraima and Maranhão) with local, national, and global implications
Beneficiaries	Immediate beneficiaries are indigenous peoples, traditional communities and family farmers; mediate beneficiaries are all humans globally affected by climate change
Financial dimension	Federal treasure as main source of funding. Budget ranged from BRL 394 million to BRL 1.4 billion. Additional resources of BRL 1.2 billion came from the Amazon Fund
Implementation strategy	Create ethno-environmental mosaics in conflict zones; increase perception of risk by environmental offenders; raise economic attractiveness of sustainable production
Critical aspects that contributed to its efficacy (compared to PPCerrado, for instance)	Higher visibility and greater social sensitization toward the Amazon biome; strong organization of social movements; federal ownership of public lands; geographic distance from the most populated cities and the agribusiness' strongholds
Critical aspects that undermined its efficacy	Greater difficulties in advancing a positive agenda (strengthening production and commercialization of family farming, agroecology and sociobiodiversity products) vis-à-vis a negative agenda (territorial planning, inspections, fines, seizures, and embargos); preponderant reliance on executive orders in detriment to legislative bills to build the policy's legal architecture; resistance of subnational governments (states and municipalities) in taking concrete actions to restrain the expansion of agribusiness; mismatch between the performance of environmental and land agencies at the federal level

Source: own elaboration based on BUCCI, *op. cit.*

PART II: IBAMA'S ORGANIZATIONAL STRUCTURE AND CULTURE

This part of the dissertation continues telling the story of PPCDAm, now some distance “toward the street,” by turning to one of the agencies responsible for its implementation: Ibama, acronym for Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources). Ibama is responsible, among other competences, for licensing the suppression of native vegetation in areas located within federal jurisdiction and conducting inspection operations to combat illegal deforestation and other environmental infractions (primarily in areas located within federal jurisdiction, but in a supplementary character also in areas under the responsibility of subnational states and municipalities).

As justified in chapter 1, I chose this organization amidst dozens of others involved in the execution of PPCDAm because policy documents, audit reports, and scientific papers alike assign to the enhancement of monitoring and control instruments the largest share of credit for the 80% drop in deforestation in the Amazon between 2004 to 2014. By some accounts, this decrease represented the largest individual contribution ever made by a single country to mitigate climate change.⁴⁷⁵ As shown in the literature review, the institutional metamorphosis that made it possible for Brazil's main environmental agency to deliver such an astonishing result has received very limited academic attention to date.

Our aim in part II is to identify, describe, and analyze the main transformations undergone by Ibama during the implementation of PPCDAm. Given this study's focus on deforestation prevention and control, we restrict the investigation to changes that impacted, positively or negatively, Ibama's capacity to conduct inspection operations against illegal deforestation in the Amazon. This methodological decision requires leaving out, or at least paying less attention to, activities related to other competences exercised by the agency, such as licensing, registry of chemical substances, management of contaminated areas, standardization of environmental quality norms, control of biological material, prevention of environmental accidents and emergencies, promotion of environmental education, etc.

Part II is divided as follows. Chapter 6 explains the theoretical framework employed to make sense of Ibama as an organization, as well as its relation to the broader political and

⁴⁷⁵ CAPOBIANCO, João Paulo. *Amazônia, uma década de esperança: como o Brasil controlou o desmatamento entre 2004 e 2014 e está pondo tudo a perder*. São Paulo: Estação Liberdade, 2021; FONSECA, Igor *et al.* A desconstrução organizada da política florestal no Brasil: estratégias de desmantelamento e de resistência. In: GOMIDE, Alexandre; DE SÁ E SILVA, Michelle Moraes; LEOPOLDI, Maria Antonieta (eds.). *Desmonte e reconfiguração de políticas públicas (2016-2022)*. Brasília: Ipea, 2023, pp. 125-156, p. 115.

legal order wherein it is embedded. State organizations are complex objects, composed of intricate webs of formal rules and informal practices, resources and beliefs, layers of loyalties and implicit knowledge. They materialize in buildings, computers, and files as much as in common values shared by the servants. To render intelligible these and other features of state organizations, I rely on the notions of organizational structure and culture, operationalizing both concepts by breaking them into smaller elements: authority, nodality, treasure, and background with regards to structure; schemes, assumptions, events, and individual background with regards to culture. Moreover, in order to understand how organizational change intertwines with political and policy processes, this analytical framework is connected to a broader discussion on the building and dismantling of state capacity.

The remaining chapters are dedicated to reconstructing the transformations of Ibama's organizational structure and culture from 2004 to 2022. Chapter 7 addresses the timeframe that goes from Ibama's foundation until the arrival of the Workers Party in the federal Executive, roughly corresponding to the pre-PPCDAm period (1989-2002). In this first phase, Ibama's efforts to fight deforestation were, in general, quite precarious. Yet, some initial seeds of transformation were sown: new hires through civil service exams were authorized for the first time; the elements of an emerging doctrine of "environmental police power" started to be formulated; and weaponry began to be acquired.

Chapter 8 is devoted to Lula's and Rousseff's presidential terms, during which PPCDAm came into existence and delivered its best results (2003-2016). Throughout this period, there was a strong responsiveness between policy goals and Ibama's internal transformations. The agency underwent an intense process of capacity-building, which on several occasions was explicitly justified by the need to implement PPCDAm: four civil service exams were carried out; in the first ten years, budget increased; corrupt agents were investigated and expelled; satellite-based deforestation alerts became faster and more precise. Most importantly, Ibama developed what in the agents' jargon is called "doctrine of deterrence:" a set of guidelines of action grounded on the prioritization of targets of high visibility, immediate economic incapacitation of the offender, and shared responsibility across the supply chain that revolutionized environmental law enforcement in Brazil.

Chapter 9 covers the interim administration of Michel Temer and the final years of PPCDAm (2016-2018). This period was marked by severe budget cuts on environmental policies and the approval of several measures beneficial to the ruralist sector. Yet, differently from his successor, Temer did not appoint anti-environmentalists to lead Ibama. On the contrary, a renowned expert in environmental policy took over the agency's presidency. Under

her leadership, Ibama was partially spared from the widespread slowdown of environmental policies imposed by Temer's fiscal model. Important innovations occurred in this period: the destruction of equipment began to be published in the media; alternative funding from the Amazon Fund was secured to keep inspections going; a new mode of enforcement, the indirect conversion of fines, began to be implemented; operations targeting financial institutions and upstream/downstream supply chain actors involved in deforestation were intensified.

Chapter 10 narrates the changes made in Ibama by the government of Jair Bolsonaro (2019-2022). Besides extinguishing PPCDAm, the Bolsonaro government weakened legislation, restricted participatory forums, reduced budget for environmental policies, centralized decision-making, retaliated agents for the destruction of equipment, introduced delaying conciliation hearings, imposed censorship on the servants, weaponized disciplinary procedures, unjustifiably dismissed and reshuffled servants, erased Ibama's performance in official communication channels, verbally attacked and threatened environmental servants, appointed loyalists (mostly lawyers and military officers) to top-level positions, subordinated Ibama first to the Army and later to the Federal Police, among other dismantling measures. In this chapter, we also shed light on the civil servants' response to the authoritarian assault. The reaction of Ibama's tenured staff to these attempts to paralyze environmental law enforcement was not passive indifference. On the contrary, the servants engaged in different tactics of resistance, such as low-profiling, strengthening associations of civil servants, opening up channels for whistleblowing, and activating informal inter-institutional alliances.

CHAPTER 6. THEORETICAL FRAMEWORK

6.1 Environmental law enforcement agencies as organizations

Since Weber's definition of ruling organizations as "institutionally oriented political enterprises" ultimately reliant on applying (or threatening to apply) physical coercion to "the appropriation, expropriation, redistribution, or allocation of powers of government,"⁴⁷⁶ scholars have proposed different analytical tools to understand their functioning. Directing our attention to studies dedicated to forest bureaucracies, Herbert Kaufman, in his famous investigation on the U.S. Forest Service, sought to identify the factors influencing the decision-making of individual district rangers. His conceptual framework comprised "formal controls," defined as "those aspects of organization which are consciously and deliberately manipulated in order to bring about a preconceived pattern of administrative decisions and behavior," as well as "unpremeditated pressures," defined as factors that are "unintentional, unplanned, and frequently beyond the limited controls of men."⁴⁷⁷

Formal controls included devices and techniques such as authorization; direction; budgeting; recruitment; examination; appointment; transfer; promotion; and training. Unpremeditated pressures, in turn, encompassed factors such as individual values and experiences; structure of subnational governments; character and size of the "client population;" topography and climate in the local environment; the ranger's network of loyalties; inter- and intra-level relationships; and, most significantly, something Kaufman called "organization personality," "philosophy," "general conviction," "moving spirit," or "guiding statement of principles."⁴⁷⁸

Although the two organizations shared some similar challenges (according to Kaufman, "western legislators" who represented agricultural interests and opposed forestry policies succeeded in limiting the power of the U.S. president to create new national forests), the 1940s U.S. Forest Service greatly differs from 21st-century Ibama. Distinctions in the historical, socioeconomic, political, and ecological conditions of both countries, their administrative rules regarding public service, and their very understanding of what a forest is and what forest protection should be about, are too many to expose here. Right off the bat, one can notice significant differences in their scope of activities (U.S. rangers back then were

⁴⁷⁶ WEBER, Max. *Economy and Society – A New Translation* (transl. TREIBE, Keith). Cambridge: Harvard University Press, 2019, p. 495.

⁴⁷⁷ KAUFMAN, Herbert. *Field Man in Administration: How the administrative behavior of a District Ranger is influenced within and by the United States Forest Service* (Doctoral Dissertation) – Columbia University, 1950.

⁴⁷⁸ KAUFMAN, *ibid.*

mainly dedicated to timber management, while contemporary Ibama rangers are primarily devoted to investigating, stopping, and sanctioning environmental offenses) and prevailing ideal of forest protection (whereas the U.S. Forest Service was animated by a “philosophy of conservation,” Ibama, in general, embodies a political ecology of “socioenvironmentalism,” linking environmental protection with recognition of territorial rights of family farmers, indigenous peoples and traditional communities).

Another difference lies in how the two organizations framed the conversion of forestland into pastureland or cropland. Kaufman’s ranger is described as operating in a “slow-motion world,” in which the “life span of a tree is the fundamental unit of time, and the slow processes of botany and geology the regulators of pace.” Given the impossibility of “hurrying nature,” there would rarely be the need for “drastic and complete revisions of current plans.” Even fire control was “planned well before catastrophe strikes,” and conflicts with cattle ranchers caught grazing in protected areas could be solved with “unhurried caution,” by “consulting with the owners and working out an agreement whereby they were granted several years in which to find new pasture for their stock.” Conversely, such type of land-use change in contemporary Brazil (still more in the Amazon than in other biomes) invariably evokes the notions of “deforestation,” “biodiversity loss,” “climate emergence,” and “point of no return.” Here and now, forest destruction is unavoidably (and fortunately, one could add) attached to a sense of immediacy, urgency, irretrievability. Deforestation became, to parcels of national and international public opinion, a synonym of barbarism, a visual representation of Armageddon, a prelude to the “end of the world.”⁴⁷⁹

Correspondingly, Kaufman’s model does not accommodate factors that hold capital importance to understand the formation and transformations of Ibama. It does not address the impact of the federal government on the agency’s functioning, nor does it take sufficiently into account the active and collective role of the rangers in building the organization’s goals. Even when he describes phenomena such as “self-initiated action,” “discretionary range in decision-making,” and “upward flow of information, ideas, and opinions,” the emphasis is always on how these “devices” or “techniques” are used by the central administration to “instill” in the ranger “a predisposition to act in an organizationally prescribed pattern[.]” Although Ibama is not, of course, devoid of hierarchy, the type of policy contributions that its rangers have space to make goes beyond transmitting data up the organizational pyramid. Ibama rangers do not assist managers in planning the annual operation schedule; they are the ones who collectively

⁴⁷⁹ KRENAK, Ailton. *Ideas to Postpone the End of the World*. Toronto: Anansi International, 2020.

decide on it. Moreover, Kaufman's implicit reliance on the notion of *intentionality* to build his primordial conceptual distinction (formal controls vis-à-vis unpremeditated factors) misses the fact that informal processes are not devoid of intention.

Notwithstanding all these divergences between Kaufman's approach and our research object, his investigation bequeathed an important insight into organizational theory: to understand the functioning of an organization, one should look at the "realization in action" of the set of values, principles, interests, and habits shared by the organization's members. In his explanation of why rangers acted and decided the way they did, Kaufman awarded pride of place to those factors amounting to common patterns of thought and behavior, which he subsumed under the terms "organization personality," "philosophy," "general conviction," "moving spirit," etc. These reflections provide a springboard for the elaboration of this research's theoretical framework, which pivots on the notions of organizational structure and culture to comprehend how political changes impact the capacity of an environmental agency to realize its policy goals.

6.2 State capacity-building

When exposing Clune's implementation model as a heuristic scheme to approach PPCDAm, we referred to the expression "alluvial formation" to describe the long-term process of state building. The geological metaphor designates the slow movement whereby granular sediments of sand and rock are carried and deposited along the course of a river, culminating in the consolidation of soil where there used to be water. This image provides a good entry point to the theoretical discussion on state capacity. Let us begin by revising selected scholarly contributions on state capacity and dismantling, with a view to fine-graining our analytical framework to tackle the case of Ibama.

In the second half of the 20th century, a part of development theory was essentially concerned with debunking the myth that industrial revolutions are purely private processes. Studies on early and late European industrialization emphasized the key role of the state in affecting the forms and rate of capital accumulation and mitigating its negative distributional effects.⁴⁸⁰ Studies on more recent industrialization processes in developing countries were dedicated to unveiling the conditions for effective and "deeply penetrating state interventions"

⁴⁸⁰ RUESCHEMEYER, Dietrich; EVANS, Peter. The State and Economic Transformation: Towards an Analysis of the Conditions Underlying Effective Intervention. In: EVANS, Peter; RUESCHEMEYER, Dietrich; SKOCPOL, Theda (eds.) *Bringing the State Back In*. Cambridge: Cambridge University Press, 1985, p. 44.

aimed at directing capital accumulation, steering investment decisions of economic elites, inducing transition from agrarian to industrial economies, and advancing redistributive policies. State effectiveness was then understood primarily in terms of industrial development, GDP growth, income level, and revenue creation (the latter associated with the capacity to extract a share of the surplus from the dominant classes).⁴⁸¹

Definitions of development in the 21st century began to incorporate insights from other analytical perspectives, notably the capability-approach. While development continues to be articulated in these studies as the provision of complex collective goods to increase human wellbeing and flourishing, this delivery is not equated with passive consumption but is rather regarded as entailing “expanded possibilities for action” co-produced by state and society.⁴⁸² Through this lens, environmental and territorial protection can arguably be described as a collective good co-produced by state agencies (Ibama, ICMBio, Funai, etc.) in partnership with indigenous communities, traditional populations, and family farmers living in protected territories. Correspondingly, the notion of state capacity has been revised to more adequately reflect the engagement of non-state actors as co-producers of capability-expanding services.

Evans, Huber and Stephens break state capacity into two subcomponents: (i) state-society relations or “embeddedness”; and (ii) bureaucratic capacity and autonomy.⁴⁸³ Embeddedness refers to the maintenance of “dense ties to society,” both as a “source of intelligence” in policy formulation and as a means of reaching out to non-state actors during policy implementation. In their account, vibrant state-civil society relations require “political networks that bring political activists whose origins involve connections to formal political and professional networks into close relationships with marginalized grassroots groups for extended periods of time”. They also depend on the existence of progressive parties “strong enough to consistently pursue programmatic goals rather than always being pre-occupied by making compromises in order to protect themselves from electoral defeat, but not so hegemonic that they dominate civil society rather than partnering with it.”⁴⁸⁴

The second element of state capacity – bureaucratic capacity and autonomy – refers to features attributed to well-functioning public services. These include meritocratic recruitment, continued training, long-term career rewards on a par with private sector alternatives, and the

⁴⁸¹ RUESCHEMEYER; EVANS, *op. cit.* p. 54.

⁴⁸² EVANS, Peter; HUBER, Evelyne; STEPHENS, John. The Political Foundations of State Effectiveness. In: CENTENO, Miguel; KOHLI, Atul; YASHAR, Deborah (eds). *States in the Developing World*. Cambridge: Cambridge University Press, 2017, pp. 380-408, p. 386.

⁴⁸³ EVANS; HUBER; STEPHENS, *op. cit.* p. 386.

⁴⁸⁴ EVANS; HUBER; STEPHENS, *op. cit.* p. 388; 402-403.

“inculcation” of a distinctive esprit de corps sufficiently cohesive for the servants to be able “to valorize the accomplishment of shared projects.”⁴⁸⁵ Capacity, in this more circumscribed sense, means the ability to formulate “holistic and long-term strategies transcending partial, short-sighted demands from profit-seeking capitalists[.]”⁴⁸⁶ The presupposition animating such possibility of “transcendence” does not imply that state managers have superior knowledge about societal problems or solutions, nor that they are able to angelically rise above the antinomies of civil society. It simply denotes that, due to “structural removal from concern with short-run profit considerations,” state managers can form “a perspective distinct from that of private members of the dominant class.”⁴⁸⁷

From this assumption, it becomes clearer that bureaucratic autonomy does not mean insulation from civil society or politics. On the contrary, embeddedness in civil society is a precondition for the success of capability-expanding policies. Moreover, one should never lose sight of the fact that the formation of state capacity is, in itself, a political project.⁴⁸⁸ In actuality, the social group from which the bureaucracy must seek a certain shielding, if it wants to effectively bring about changes in reality, are the economically dominant classes. We can thus complement Carpenter’s definition of autonomy as the ability of an organization to sustain “patterns of action consistent with their own wishes, patterns that will not be checked or reversed by elected authorities, organized interests, or courts,”⁴⁸⁹ with Trimberg’s proposition that a segment of the bureaucratic apparatus can only be considered relatively autonomous when those who hold high posts (i) “are not recruited from the dominant landed, commercial, or industrial classes;” and (ii) “do not form close personal and economic ties with those classes after their elevation to high office.”⁴⁹⁰

At this point, considerations about historically evolved relationships between the educational system and labor market are brought to the center of the analysis. For if state organizations want to recruit candidates who, besides possessing “a wide array of skills and keen motivation,” do not originate from the dominant landed, commercial, or industrial classes, it does not suffice to establish a “regular flow of elite university graduates” into “official careers

⁴⁸⁵ EVANS; HUBER; STEPHENS, *op. cit.* p. 407.

⁴⁸⁶ SKOCPOL, Theda. Bringing the State Back In: Strategies of Analysis in Current Research. In: EVANS, Peter; RUESCHEMEYER, Dietrich; SKOCPOL, Theda (eds.) *Bringing the State Back In*. Cambridge: Cambridge University Press, 1985, pp. 3-43, p. 14.

⁴⁸⁷ RUESCHEMEYER; EVANS, *op. cit.* 53.

⁴⁸⁸ CENTENO, Miguel; KOHLI, Atul; YASHAR, Deborah (eds). Conclusion. In: *States in the Developing World*. Cambridge: Cambridge University Press, 2017, pp. 409-422.

⁴⁸⁹ CARPENTER, Daniel. *The Forging of Bureaucratic Autonomy: Networks, Reputations and Policy Innovation in Executive Agencies, 1862- 1928*. New Jersey: Princeton University Press, 2001, p. 4.

⁴⁹⁰ TRIMBERG, Ellen Kay. *Revolution from Above: Military Bureaucrats and Development in Japan, Turkey, Egypt and Peru*. New Jersey: Transaction Books, 1978.

that are of such high status as to keep the most ambitious and successful from moving on to non-state positions.”⁴⁹¹ In societies where high education is a privilege confined to the upper classes, recruiting servants from top universities can become just another means of “locking in” members of the elite,⁴⁹² who are granted stable and well-paid public positions while the lower classes remain subjected to more precarious work conditions in the private sector, be it formal or informal. Truly meritocratic recruitment goes hand-in-hand with the democratization of university education. Impact assessments of socioeconomic and racial quotas in the Brazilian educational system have already proven that quota students have an equal or even better academic performance than non-quota students, resulting in the inclusion of minorities in conditions of social vulnerability without compromising academic excellence.⁴⁹³ One could argue that inclusion policies at the university level over time also reflect positively in the bureaucracy, as graduates originally stemming from lower social strata enter administration through public service exams, a virtuous circle that gradually contributes to improving the overall performance of state organizations.

Even if a state segment manages to recruit skilled personnel with no ties to dominant economic classes, its autonomy will always be relative, provisional and contingent in relation to politically organized interests. Both policy formulation and implementation depend on political decisions, and, in functioning procedural democracies with minimally competitive elections (arguably the case of Brazil between the two impeachment processes of 1992 and 2016), bureaucracies completely isolated from the need to negotiate with elected politicians are neither possible nor desirable. For this reason, Bersh et al. suggest one should rather speak of “porous bureaucracies” surrounded by a “semipermeable membrane” that allows for a “combination of openness to societal inputs and protection from undue pressures,” “preserv[ing] the organizational integrity and goals of the bureaucracy, but also permit[ing] the bureaucracy to receive information and resources from society.”⁴⁹⁴

⁴⁹¹ SKOCPOL, *op. cit.* p. 16.

⁴⁹² GRAHAM, Lawrence. *Civil Service Reform in Brazil*. Austin: University of Texas Press, 1968, p. 35-36, 86-88.

⁴⁹³ SILAME, Thiago *et al.* O efeito das cotas: desempenho acadêmico dos estudantes cotistas da Universidade Federal de Viçosa – Campus Rio Paranaíba. *Revista Brasileira de Ciência Política* 33, e193375, 2020, pp. 1-36; PINHEIRO, Daniel *et al.* Impactos das cotas no ensino superior: um balanço do desempenho dos cotistas nas universidades estaduais. *Revista Brasileira de Educação*, v.26, e260020, 2021, pp. 1-30; DOS SANTOS, Jocélio Teles (org.) *O impacto das cotas nas universidades brasileiras (2004-2012)*. Salvador: CEAO, 2013.

⁴⁹⁴ BERSH, Katherine; PRAÇA, Sérgio; TAYLOR, Matthew. Bureaucratic Capacity and Political Autonomy Within National States: Mapping the Archipelago of Excellence in Brazil. In: CENTENO, Miguel; KOHLI, Atul; YASHAR, Deborah (eds). *States in the Developing World*. Cambridge: Cambridge University Press, 2017, pp. 157-183, p. 164.

Another way of describing the porous interface between bureaucrats and politicians is through the notion of public service bargains, proposed by Hood and Lodge. They argue that at the core of any state organization, servants and politicians typically exchange competence and loyalty for reward and responsibility. The authors call these arrangements public service bargains, meaning any agreement, explicit or implicit, written or unwritten, expressed in convention, formal law or a mixture of both, which “can be understood as the product of some sort of equilibrium” between the forces or interests of servants and elected politicians.⁴⁹⁵ Under conditions of democratic normality, politicians strive to enter into some sort of agreement with bureaucrats on the principles and conditions of policy development. An adjustment of interests (even if conflictual), rather than a unilateral offense to ascertain full control, is the usual outcome of the brush between political actors and civil servants.

Bureaucratic autonomy is said to be relative, provisional and contingent vis-à-vis politics because processes of bureaucratic autonomization ultimately can always be politically reversed. Executive orders can be revoked, statutes can be altered, and in the limit, constitutions can be replaced. That notwithstanding, some strategies can be adopted by public servants to impose a higher cost on politicians for the reversal, giving leverage to the bureaucracy and enlarging its room for maneuver. Besides *strategies*, the literature has also identified a number of *conditions* that facilitate the attainment of bureaucratic autonomy. Four of these conditions and strategies bear resemblance to the circumstances underpinning PPCDAm’s impact on Ibama: (i) divisions within the dominant class and pressures from subordinate classes; (ii) deficit of adequate knowledge by dominant classes about indirect redistributive policy outcomes; (iii) success of pivotal bureaucrats in building network-based coalitions to promote the organization’s reputation before public opinion; and (iv) combination of high dispersion and low centralization of decisional power in the design of organizational chains of command.

Divisions within the dominant class and pressures from subordinate classes, as pointed out by Evans et al., can create windows of opportunity to enhance bureaucratic autonomy. When “the pact of domination has serious cleavages within it,” “threats from below [can] induce the dominant classes to grant greater autonomy to the state.” Moreover, in such a scenario of elite fragmentation, “subordinate classes [can] acquire sufficient power to undo monolithic political control by the dominant classes.” Although these compromises also run the risk of resulting in the “balkanization” of the state through “the capture of different parts of the state apparatus by different interests,” they most likely tend “to concede, virtually by necessity,

⁴⁹⁵ HOOD, Christopher; LODGE, Martin. *The Politics of Public Service Bargains: reward, competency, loyalty – and blame*. Oxford: Oxford University Press, 2006, p. 6-7; 12.

a certain space for autonomous action to the state apparatus[.]”⁴⁹⁶ One must be cautious, though, when probing whether a determined divergence constitutes an episodic disagreement or a serious cleavage within elites. Splits between agrarian, industrial, and financial capital, foreign and domestic capital, or, more importantly to our case, higher and lower echelons of agribusiness (a distinction usually mirrored in the pair “modern vs. backward” rural elites), cannot be presumed but should be concretely demonstrated.

Deficit of adequate knowledge by the dominant classes about indirect redistributive outcomes, as also argued by Evans et al., can likewise increase the space of bureaucratic action to formulate and implement impactful policies. Just as opposition to state intervention is expected to be stronger when redistributive policy effects are “direct and plainly visible,” cases in which redistribution is a “by-product of policies initiated and justified on other grounds” are less likely to face resistance from dominant classes.⁴⁹⁷ This proposition helps to partially explain why the Legislative approved statutes hardening environmental command and control instruments in the late 1990s and early 2000s, – that is, before the full-fledged implementation of PPCDAm, – but from the mid-2000s onward, bills strengthening sanctions to environmental offenders started to be systematically blocked. Unaware of the impacts that the advance of an environmental agenda could have on their economic activities (or skeptical about the efficacy of its implementation), the rural caucus was not particularly willing nor able to offer effective opposition to the creation of Ibama in 1989 and the enactment of the Environmental Crimes Act in 1998. This changed as soon as environmental law enforcement began to be implemented and the redistributive effects of environmental and territorial protection became clearer to landowners, which prompted increasing opposition from the ruralist caucus.

Bureaucrats can also amplify their space of action vis-à-vis elected politicians, as contended by Carpenter, when they succeed in forming network-based coalitions and, through them, build a solid reputation for their agencies before public opinion. The assumption here is that external actors tend to refrain from interference if a strong network-based reputation embedded in an independent power base (e.g. environmental agencies with connections to national and international media and NGOs) imposes generalized public costs on any actor who attempts to resist the agency’s interests. Autonomy is enlarged when pivotal servants can convince “diverse coalitions of organized interests, the media, and politicians of the value of their ideas and their bureaus.” In their turn, coalitions tend to be more stable the more diverse the profile of their supporters. Persuasion is also considered to be more effective when it relies

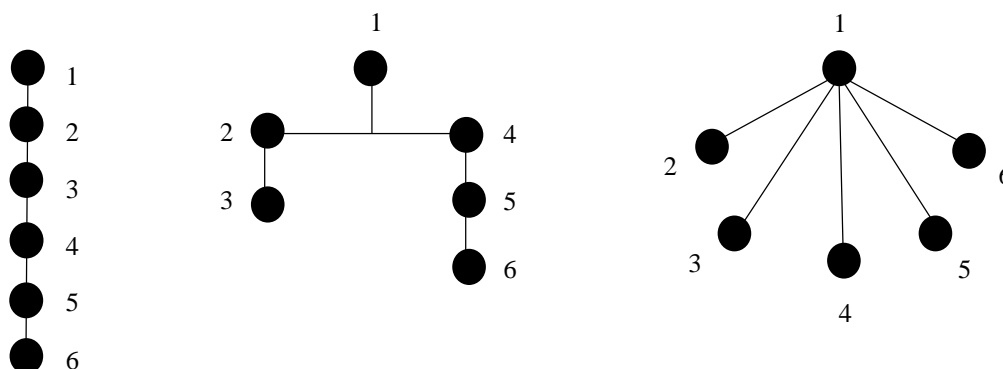
⁴⁹⁶ RUESCHEMEYER; EVANS, *op. cit.* p. 64.

⁴⁹⁷ RUESCHEMEYER; EVANS, *op. cit.* p. 66.

on a narrative that rhetorically explores the idea of experimental incrementalism to inculcate in citizens and politicians a belief in the agency's unique and adaptive character.⁴⁹⁸ This strategy of reaching out to the media and other non-state actors to enable a space of action was employed by pivotal Ibama servants with relative success in two moments that will be discussed in detail: when Ibama's social communication office started to activate contacts in national and international newspapers and television programs to publish images of rangers destroying equipment with a view to amplify deterrence, and when Ibama's presidency managed to convince the steering committee of the Amazon Fund to waive its traditional additionality criterion and finance the lease of trucks and helicopters that were essential to the continuation of inspection operations in the Amazon.

Finally, the impact of politics on bureaucracies can be partially cushioned through organizational structures designed with high dispersion and low centralization of decisional power. This argument was proposed by Santos, who distinguished between three ways to accommodate decisional units within an organization: chaining them across different hierarchical levels (a disposition he called control integration or vertical complexity); distributing them in the same hierarchical level (compound or horizontal complexity); or concentrating command in the organization's top position (centralization).⁴⁹⁹

Figure 1: Control integration, compound complexity and centralization



Source: DOS SANTOS, *op. cit.*, p. 134; 136.

Santos applied this framework to the organizational charts of different agencies in the Brazilian federal administration from 1945 to 1970, having arrived at three general conclusions. First, structures with high compound complexity tend to be more resistant to external

⁴⁹⁸ CARPENTER, *op. cit.* p. 17; 30-32.

⁴⁹⁹ DOS SANTOS, Wanderley Guilherme. *O ex-leviatã brasileiro*. Rio de Janeiro: Civilização Brasileira 2006, p. 132; 134.

intervention than structures with high control integration. Second, structures with high control integration and low centralization of the top position are more resistant to external intervention the more stable their intermediate elite is. Third, structures with low control integration and high centralization of the top position are more resistant to external intervention the more stable their top elite is. Drawing on these observations, he argued that external intervention through capture of top positions can be averted through the combination of high dispersion and low centralization, in the sense that, at the very least, changing such structures increases the political costs for externals who want to interfere in the agency.⁵⁰⁰

Santos's argument does not stand too distant from what Rueschemeyer and Evans call the "decentralization problem." The latter contend that decentralization is paramount both to ensure more "efficient decision making" and "more effective political relations." Decentralization is not limited to mere geographical dispersion of offices, but rather requires "insulating certain aspects of the operation of its subunits from the control of the central bureaucracy." However, to avoid this insulation from resulting in loss of cohesion and coordination, it must be accompanied by "countervailing integration mechanisms." Such mechanisms can take many forms, such as dual control lines or a distinctive esprit de corps capable of providing coordination by combining relative autonomy with a shared sense of purpose.⁵⁰¹ The rearrangement of decisional units within Ibama's organizational structure to entail different patterns of control integration, compound complexity, and centralization emerges very clearly when one compares, as we will do in chapter 10, the internal division of competences to judge administrative fines under the Workers Party administrations and Michel Temer with the one enacted during the Bolsonaro government.

Other approaches draw on notions of bureaucratic capacity and autonomy convergent to those described above while further operationalizing them through quantifiable proxies in cross-agency comparisons. Bersh et al. measure capacity through four elements: proportion of civil servants vis-à-vis political appointees in expert careers; average turnover of civil servants; proportion of servants summoned to work in other agencies; and average salary. Autonomy, to them, is determined by two elements: proportion of political positions filled by party members and proportion of tenured civil servants who are party members. In their study, Ibama was considered as having high capacity but low autonomy.⁵⁰² Souza takes four components into account to measure capacity: proportion of temporary servants; proportion of servants in

⁵⁰⁰ DOS SANTOS, *op. cit.* p. 136-137; 146-147.

⁵⁰¹ RUESCHEMEYER; EVANS, *op. cit.* p. 56.

⁵⁰² BERSH; PRAÇA; TAYLOR, *op. cit.* p. 176.

specialist or generalist careers; proportion of political positions filled by tenured servants; and proportion of tenured servants fired after disciplinary procedures. She found that Ibama has a relatively high proportion of temporary contracts and layoffs. Therefore, and also considering that Ibama's specialist career was only structured in 2012, she concluded the agency has low capacity.⁵⁰³

By relying on different data collection techniques than those proper for quantitative cross-agency analyses, this in-depth case study complements and qualifies the findings of Bersh et al. and Souza. The relationship of tenured servants and political appointees with governing parties, as well as the reasons for the high proportion of temporary contracts and layoffs, are subjects that will be discussed in detail throughout the chapters. It will be argued that party membership of leaders and mid-level servants did not always entail a reduction in the agency's autonomy to implement PPCDAm. It was only from 2019 to 2022 that political interference seriously threatened the planning and execution of inspection operations against illegal deforestation in the Amazon. Moreover, a high proportion of temporary contracts and layoffs does not necessarily imply a negative connotation of instability, turnover and discontinuity of work. In the case of Ibama, temporary contracts reflect the need to hire firefighters in dry seasons, and many layoffs were the result of anti-corruption initiatives carried out under Marina Silva's management. As we delve deeper into each item of the capacity-autonomy formula based on interviews and documents, the same phenomenon can receive interpretations opposite to those offered by quantitative cross-agency comparisons.

6.3 Capacity dismantling and bureaucratic resistance

To make sense of the transformations that took place in Ibama during the Bolsonaro administration, the need for a concept diametrically opposed to capacity building arose. The theoretical challenge under Bolsonaro became how to produce analytical categories that are committed to democracy and the reduction of inequalities without slipping into purely denunciatory language loaded with normativity but lacking explanatory depth. In the field of environmental policy, this task can be translated as how to distinguish the measures taken by his government from other types of policy change without getting lost in watchwords and manifestos. Another analytical possibility is to shift the focus from what was done to the *conditions of possibility* for what was done. More than compiling the executive orders issued

⁵⁰³ SOUZA, Celina. Capacidade Burocrática para a Implementação de Políticas: Brasil e Argentina em Perspectiva Comparada. Brasília/Rio de Janeiro: Ipea, 2015.

by Bolsonaro on environmental policy, it is relevant to interrogate what contextual factors allowed his government to harvest political rewards from the erosion of state capacity in the domain of environmental policy.

A good way to start stitching together the conceptual pieces may be with the consecrated typology of policy change proposed by Streeck and Thelen. The authors analyzed liberalization processes initiated in the 1980s in industrialized Western democracies and identified five types of institutional transformation: displacement, layering, drift, conversion, and exhaustion. They defined displacement as the “slowly rising salience of subordinate [elements] relative to dominant” institutions. Layering was defined as the introduction “by the margins” of new elements to an existing set of institutions. This dynamic of differential growth through “active sponsorship of amendments, additions, or revisions” would gradually “crowd out or supplant by default the old system.” Drift, in turn, would occur when institutions “lose their grip on social reality” because of deliberate neglect to adapt their rules to changing external conditions. Conversion was understood as the redirection of institutions “to new goals, functions, or purposes.” Exhaustion was described as a “process in which behaviours invoked or allowed under existing rules operate to undermine these.” This gradual withering away could be motivated by self-consumption (the normal functioning of an institution undermines its external preconditions), decreasing returns (generalization inverts cost-benefit ratios), or overextension (limits to growth).⁵⁰⁴

What displacement, layering, drift, conversion and exhaustion have in common, in Streeck and Thelen’s account, is that they do not indicate “big changes in response to big shocks,” but “*incremental change with transformative results.*”⁵⁰⁵ These categories were developed to conceptualize one historically and geographically determined phenomenon: the advance of liberalism in industrialized countries of democratic capitalism. What Streeck and Thelen explicitly aimed with this framework was refuting “common wisdom in the welfare state literature” that mainly focused on “difficulties of retrenchment” and downplayed the “magnitude and significance” of pro-liberalization changes, as if they were “merely modifications on the surface of a fundamentally stable and self-reproductive social order.”⁵⁰⁶

The changes promoted by the government of Jair Bolsonaro in the environmental field cannot be deemed incremental, unless the meaning of “incrementalism” is so stretched as to

⁵⁰⁴ STREECK, Wolfgang; THELEN, Kathleen (eds.) Introduction. In: *Beyond Continuity: Institutional Change in Advanced Political Economies*. Oxford: Oxford University Press, 2005, p. 22-31.

⁵⁰⁵ STREECK; THELEN *ibid.*, p. 9.

⁵⁰⁶ STREECK; THELEN *ibid.*, p. 5-6.

lose all usefulness. In his first two years of presidential office, Bolsonaro issued more than two thousand executive orders altering, revoking, or introducing rules in environmental policies – an average of 3 orders per day.⁵⁰⁷ Not only the *process* of change was convulsive, but also its *result* was an abrupt discontinuity. As we will unpack below, Ibama’s 16-year track record of building enforcement capacity was interrupted by the severe impairment of its authority, nodality, treasure, and background, resulting in direct impact on PPCDAm’s outputs. In such a scenario, *dismantling* does arise as a fitting category to grasp the specificities of institutional and policy change in contemporary contexts of far-right authoritarianism.

The early origins of policy dismantling as an academic subfield go back to the experience of deregulation and welfare retrenchment in Europe and the United States in the 1970s and 1980s.⁵⁰⁸ At that point, scholars reflected on the strategies used by governments to conciliate cuts in social spending with a vote-seeking logic.⁵⁰⁹ In this initial approach, more focused on the Global North political landscape, dismantling would thus be a type of policy change seeking to reduce “traditional social democratic pro-welfare policies, [...] because of the overall context of permanent austerity.”⁵¹⁰

Later attempts to render the concept applicable to different political realities, usually accompanied by calls for “a more general theory of policy change”⁵¹¹ and “more solid comparisons across countries,”⁵¹² resorted to quantitative approaches that presuppose the possibility of establishing a measurement scale of change. Along this line, Bauer and Knill propose a distinction between policy density (number of policies and instruments) and policy intensity (strictness or generosity of policies), subdividing the latter into substantial intensity (level and scope of governmental intervention) and formal intensity (factors affecting effectiveness of policy outputs such as financial, personnel and organizational resources of implementing authorities).⁵¹³ Their classification of dismantling strategies varies along two axes (active/passive; high visibility/low visibility) and encompasses four types: by default (non-adjustment of policy levels to changing external conditions); by arena-shifting (deliberate

⁵⁰⁷ POLÍTICA POR INTEIRO. <<https://www.politicaporinteiro.org/2020/12/17/monitoramento-inedito-organiza-mais-de-2-000-atos-do-governo-federal-na-area-ambiental/>>. Accessed on 10 July 2023.

⁵⁰⁸ JORDAN, Andrew *et al.* Policy dismantling. *Journal of European Public Policy*, v. 20, n. 5, 2013, pp. 795-805, <https://doi.org/10.1080/13501763.2013.771092>.

⁵⁰⁹ BONOLI, Giuliano. Blame Avoidance and Credit Claiming Revisited. In: BONOLI, Giuliano; NATALI, Dvid. *The Politics of the New Welfare State*. Oxford: Oxford University Press, 2012, pp. 93-110, p. 102.

⁵¹⁰ BONOLI, *op. cit.* p. 105.

⁵¹¹ BAUER, Michael; KNILL, Christoph. A Conceptual Framework for the Comparative Analysis of Policy Change: Measurement, Explanation and Strategies of Policy Dismantling. *Journal of Comparative Policy Analysis*, 2014, pp. 28-44, doi:10.1080/13876988.2014.885186.

⁵¹² JORDAN *et al.*, *op. cit.* p. 797.

⁵¹³ BAUER; KNILL, *op. cit.* p. 32-40.

relocation of dismantling decisions to another political arena); by symbolic action (deliberate declaration of dismantling intentions by political actors); and active dismantling (politicians not only declare but actually dismantle).⁵¹⁴

Other studies have pursued more qualitative-oriented endeavors to conceptualize dismantling, by situating it in contexts of democratic backsliding and turning to the relationship between politicians and bureaucrats as an entry point to the discussion. Bauer et al. propose that authoritarian leaders with a negative view of the state tend to dismantle fragile bureaucracies by centralizing structure and resources, politicizing personnel and norms, and reducing accountability.⁵¹⁵ Morais and Gomide have shown that dismantling measures carried out by authoritarian politicians present new characteristics in relation to previous experiences of policy reduction, decrease, or diminution. Notably, actions taken by these leaders do not seem to follow expected patterns of incrementalism, policy accumulation, and non-explicit policy dismantling, rather displaying a tendency to dismantle by weakening institutional constraints and eroding policy capacities, what the authors call “institutional hardball.”⁵¹⁶

Correlate efforts to typify the modes of action that authoritarian leaders usually take in relation to the bureaucracies suggest that the formers can either side-line, ignore, or use the latter.⁵¹⁷ Bureaucratic reaction, in turn, is often classified as working (adjusting to the new regime), shirking (slowing down policies), or sabotaging (frustrating program goals).⁵¹⁸ The triptych side-line, use, and ignore has been considered insufficient to grasp the Brazilian case, as under Bolsonaro civil servants were not simply shunned or frowned upon but treated as enemies to be eliminated.⁵¹⁹ Systematic disqualification, explicit threats against, and undisguised contempt for the servants are more than simply means to sideline them. These practices have been subsumed under the rubrics of “institutional harassment” and interpreted as attempts at delegitimizing public service with the ultimate goal of disorganizing the state in

⁵¹⁴ BAUER; KNILL, *ibid.*

⁵¹⁵ BAUER, Michael; BECKER, Stefan. Democratic Backsliding, Populism, and Public Administration” *Perspectives on Public Management and Governance* 3:1, 2020, pp. 19-31.

⁵¹⁶ DE SÁ E SILVA, Michelle Morais; GOMIDE, Alexandre (eds). Introduction: The policy process in democratic backsliding: what have we learned from illiberal populist governments? In: *In the wake of illiberal populism: The policy process in democratic backsliding*. London: Palgrave Macmillan, forthcoming.

⁵¹⁷ BAUER, Michael *et al.* (eds). *Democratic Backsliding and Public Administration How Populists in Government Transform State Bureaucracies*. Cambridge: Cambridge University Press, 2021, p. 14-21.

⁵¹⁸ GUEDES-NETO, João; PETERS, Guy. Working, Shirking, and Sabotage in Times of Democratic Backsliding: An Experimental Study in Brazil. In: BAUER, Michael *et al.* (eds). *Democratic Backsliding and Public Administration How Populists in Government Transform State Bureaucracies*. Cambridge: Cambridge University Press, 2021, pp. 221-245, <https://doi.org/10.1017/9781009023504.011>.

⁵¹⁹ AGUIAR, Monique. Estudo introdutório e plano de organização do livro” in José Celso Cardoso Jr. *et al.* (org.) *Assédio Institucional no Brasil: Avanço do Autoritarismo e Desconstrução do Estado*. Campina Grande: EDUEPB, 2022, pp. 29-56.

favor of the market.⁵²⁰ The imposed atmosphere of fear, collectively experienced by government workers across different areas and careers, is brought forth as a useful heuristic tool to distinguish between democratic policy change and authoritarian policy dismantling.⁵²¹

The phenomena analyzed in the scope of this case study indicate that the triad work-shirk-sabotage deserves recalibration in one aspect. Working as a possible bureaucratic response to authoritarian dismantling can carry another meaning than that of adjusting to the new regime. In contexts of institutional harassment oriented toward the deconstruction of public policies, continuing to work does not necessarily mean docile obedience. On the contrary, it can mean direct confrontation with the generalized situation of inertia and paralysis desired by elected politicians. Therefore, depending on the circumstances, working can be interpreted as a tactic of resistance alongside shirking, sabotaging, and other means of action – be they individual or collective, overt or covert, sporadic or systematic, formal or informal.⁵²²

6.4 Organizational structure and culture

To grasp the transformations toward building or dismantling capacity undergone by Ibama, I propose to add a final layer of theoretical elaboration by operationalizing the concept of “organization” through the notions of structure and culture. Both words have a longstanding tradition in social theory and their use is never free of ambiguity. Therefore, they are employed in this research with rather circumscribed definitions. Structure is understood here as the complex apparatus of tools available to an organization to intervene in reality. These instruments can be divided into four kinds: authority, nodality, treasure, and background.⁵²³⁵²⁴

Authority corresponds to the set of rules that give concretion to the agency’s purpose by defining legal / illegal behavior based on the structure “who should do what, where and

⁵²⁰ DA SILVA, Frederico Barbosa *et al.* Assédio institucional no setor público e o processo de desconstrução da democracia e do republicanismo no Brasil de Bolsonaro. In: CARDOSO JR., José Celso *et al.* (org.) *Assédio Institucional no Brasil: Avanço do Autoritarismo e Desconstrução do Estado*. Campina Grande: EDUEPB, 2022, pp. 115-149, p. 122.

⁵²¹ DE SÁ E SILVA, Michelle Morais. Policy dismantling by capacity manipulation in a context of democratic backsliding: the bureaucracy in disarray in Bolsonaro’s Brazil. *International Review of Public Policy*, 3(3) 2022, <https://doi.org/10.4000/irpp.3001>.

⁵²² LOTTA, Gabriela *et al.* Action and Reaction: how bureaucrats cope with different forms of political oppression. In: DE SÁ E SILVA, Michelle Morais; GOMIDE, Alexandre (eds.) *In the Wake of Illiberal Populism: the Policy Process in Democratic Backsliding*. London: Palgrave Macmillan, forthcoming.

⁵²³ What I call “background,” Hood and Margetts call “organization.” The substitution aimed at avoiding confusion with the broader sense of organization employed in this dissertation.

⁵²⁴ HOOD, Christopher; MARGETTS, Helen. *The Tools of Government in the Digital Age*. London: Palgrave Macmillan, 2007.

when.”⁵²⁵ Correspondingly, it encompasses all statutes, laws, decrees, executive orders, judicial decisions, and internal administrative norms establishing Ibama’s competences and attributions. Changes in Ibama’s tokens of authority are described according to political cycle in subchapters 7.1; 8.1; 9.1; and 10.1. The guiding thread of this reconstruction is the genesis of the doctrine of deterrence based on a resignification of the agency’s rules by a group of agents, followed by its gradual consolidation as the “moving spirit” of the organization, subsequent political attempts to neutralize its application, and reactive tactics developed by the servants to resist forced demobilization.

Nodality refers to all channels, nodes, or nudges through which an agency can obtain or send information. It “denotes the property of being in the middle of an information or social network,” which endows the organization with a strategic position to draw in data.⁵²⁶ Ibama’s most important nodes to *obtain* information on deforestation are two satellite monitoring systems operated by Inpe: Prodes and Deter. The first generates annual reports; the latter sends real-time alerts. The most impactful channels to *send* information to civil society are formal and informal connections with the press. These connections are mobilized to amplify deterrence, achieve a better position in the “media battle,” and improve the agency’s image before public opinion. Subchapters 7.2; 8.2; 9.2; and 10.2 identify developments, limitations, and setbacks in these nodality tools according to political cycle.

Treasure denotes the possession of a stock of money or other kinds of material resources.⁵²⁷ It includes, for instance, budget, infrastructure, or access to alternative sources of funding. Subchapters 7.3; 8.3; 9.3; and 10.3 give an overview of the progression of Ibama’s budget, also unveiling how the Amazon Fund ended up becoming an alternative financing means that secured the leasing of helicopters and trucks for inspection operations, Ibama’s most expensive infrastructure contract.

Background means “the possession of a stock of people with whatever skills they may have.”⁵²⁸ It encompasses the variable repertoire of practices and capacities shared by the agency’s participants in the form of technical knowledge. In subchapters 7.4; 8.4; 9.4; and 10.4, we analyze changes in Ibama’s recruitment examinations, internal training courses, and moments of career-based socialization (such as interactions during fieldwork and official

⁵²⁵ LINDAHL, Hans. *Authority and Globalisation of Inclusion and Exclusion*. Cambridge: Cambridge University Press, 2018, p. 55.

⁵²⁶ HOOD; MARGETTS, *op. cit.* p. 5-6.

⁵²⁷ HOOD; MARGETTS, *op. cit.* p. 5-6.

⁵²⁸ HOOD; MARGETTS, *op. cit.* p. 5-6.

conferences), with a view to describing the circumstances of development, transmission, and registration of its institutional repertoire of action.

Culture, in its turn, is here understood as the set of common interests and values in which the agency's participants are socialized. This set of interests and values is transmitted through patterns of recruitment, training, and career-based socialization. The culture of an organization has "differentiating and enabling properties," as it "demarcate[s] bureaucracies from one another and from other organizations in their policy domain", as well as fosters "cohesion, coordination, and commitment" among the agency's participants.⁵²⁹ To render interests and values readable in the sources, I also break culture into four elements: schemes, assumptions, events, and individual background.

Schemes refer to any image, dictum, or figure deemed exemplar, either positively or negatively, by the agents. They are symbols that evoke the common identity of the agency, usually expressed by means of a metaphorical complex of words and images⁵³⁰ that discloses what the organization ought to be about.⁵³¹ The word "deterrence," for instance, which condenses the guidelines of action animating Ibama's inspection work, can be deemed a scheme that brings the organization's identity to language. Its visual representation finds maximum expression in the photos of rangers exploding machines used in illegal mining and deforestation printed on the cover of newspapers and proudly hung on the walls of Ibama's headquarters in Brasília. These pictures, analyzed in subchapter 9.2, capture and denote, probably with more eloquence than any speech, what the agency's spirit is about.

Assumptions mean the underlying presuppositions and frames of thought informing the use of schemes by the agents. They correspond to patterns of meaning ultimately reliant on irreconcilable worldviews or orders of values, which cannot always be rationally formulated as a clearly estimated goal or ideal. Assumptions go hand-in-hand with the acknowledgment that collective action cannot open up a range of practical possibilities without also closing down other practical possibilities.⁵³² The scheme of "deterrence," for example, relies on the framing of deforestation as, above all, a branch of "organized crime" that victimizes the poor and enriches the powerful. This framing is rooted in a certain worldview that rejects the march of agribusiness into the forest as a legitimate enterprise and supports state intervention to restrain an otherwise endless expansion of the plantation matrix.

⁵²⁹ CARPENTER, *op. cit.* p. 27.

⁵³⁰ CARPENTER, *op. cit.* p. 23-24.

⁵³¹ LINDAHL, *op. cit.* p. 112.

⁵³² LINDAHL, *op. cit.* p. 52.

Events account for the landmarks that chronicle the organization's history. These landmarks are not necessarily the "watershed decisions" interpreted as relevant by the researcher. They correspond to the episodes narratively chained by the agents themselves when telling a story that explains the agency's meaning and purpose to its members or outsiders.⁵³³ Out of a selection of which facts should be remembered and which should be forgotten, which actors and deeds deserve praising and which can fall into oblivion, the institutional memory permanently reconstitutes itself. The agents' perception of landmarks is not static but continuously open to reevaluation. Consider, for example, an event of great significance to the self-understanding of Ibama as an organization: the dismemberment of its competences in 2007 to create a second environmental agency, ICMBio. At that time, the word "dismantling" was abundantly used by the servants to denounce what they then understood as a "political option" for the "disruption of the Brazilian environmental policy itself."⁵³⁴ With the benefit of hindsight and under the comparative light of the Bolsonaro government (which considered merging back the two agencies), the initially traumatic creation of ICMBio has been reinterpreted by many (though not all) Ibama's agents as a "right decision."

Lastly, individual background relates to the socioeconomic origin of the agents, as well as their educational and professional trajectory. This encompasses the skills, abilities, and knowledge possessed by each member of the organization individually, along with the motives they attribute to their decision to apply for a career in Ibama. "Motive" is here understood as a configuration or context of meaning that appears either to the actor or to an observer as a relevant and appropriate basis for a piece of behavior.⁵³⁵ While the elements of structure are addressed separately in different chapters, the elements of culture permeate the entire part II. Transformations in the individual background of the public servants, in particular, are mainly addressed in subchapters 7.4; 8.4; 9.4; and 10.4.

⁵³³ LINDAHL, *op. cit.* p 68.

⁵³⁴ GOUVEIA, Maria Teresa. As conceituações de meio ambiente praticadas pelo corpo técnico do Instituto Brasileiro de Meio Ambiente (Ibama) na formação de sua cultura organizacional (Doctoral Dissertation) – State University of Rio de Janeiro, 2011, p. 52.

⁵³⁵ WEBER, *op. cit.*, p. 87.

CHAPTER 7. AN AMBIGUOUS INHERITANCE (1989 – 2002)

7.1 Authority: the four origins dilemma

Ibama, acronym for Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources), today Brazil's major federal environmental agency, was created in 1989, one year after the promulgation of the democratic constitution in 1988. Ibama's creation was the result of the merger of four organs: The Special Environmental Secretariat (SEMA), the Brazilian Institute for Forest Development (IBDF), the Fishing Agency (SUDEPE), and the Rubber Agency (SUDHEVEA). What this "merger" meant was that all "assets, budget, extra-budget and financial resources, competences, attributions, personnel – including inactive and pensioners, – positions, functions and jobs" of SEMA, IBDF, SUDEPE and SUDHEVEA were transferred to Ibama, which succeed them "in all rights, credits and obligations resulting from law, administrative acts or contracts, including respective revenues."⁵³⁶

Originally, Ibama was located within the structure of the Ministry of Interior, as the Ministry of the Environment did not exist autonomously yet. In 1991, a few months before the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992, president Fernando Collor created the Special Environmental Secretariat of the Presidency (Semam/PR). In November of that same year, Semam/PR was extinguished and the Ministry of the Environment was created.⁵³⁷ Ibama was then correspondingly transferred from the Ministry of Interior to the Ministry of the Environment.

The organs fused to form Ibama had very diverse purposes and characteristics. SEMA was linked to the Ministry of Interior and focused on urban and industrial pollution. It had been created in 1973 by the military regime in the wake of the United Nations Conference on the Human Environment held in 1972 in Stockholm. The creation of SEMA by a military regime that did not have environmental concerns in high esteem can be largely attributed to external "post-Stockholm pressure" and read as an attempt of the Brazilian government at the time to transmit a good international image. What had been originally conceived to be more symbolic than effective, however, ended up producing long-standing positive consequences. SEMA's staff played an important articulating role in the elaboration of the National Environmental

⁵³⁶ BRAZIL. Law No. 7,735/1989, article 4.

⁵³⁷ DE MOURA, Adriana Maria Magalhães (org.). *Trajectoria da política ambiental federal no Brasil. In: Governança ambiental no Brasil: instituições, atores e políticas públicas*. Brasília: Ipea, 2016, p. 18.

Policy (Law No. 6,938/1981), enacted still under the military dictatorship in 1981.⁵³⁸ The statute integrated policies until then treated separately, provided for the first decentralization rules under the model of cooperative federalism, and included participatory mechanisms for civil society. It is considered one of the few (if not the only) pieces of legislation promulgated during the autocratic regime that has been “received” in its entirety by the new democratic order (that is, whose full text has been unambiguously considered compatible with the novel constitution).⁵³⁹ In 1985, the Ministry of Urban Development and Environment was created, and SEMA was transferred to its ministerial structure.

IBDF was an agency linked to the Ministry of Agriculture, whose function was managing conservation units (by then, there were already at least 80 conservation units in the country since the first one was established in 1937) and enforcing the 1934 Forest Code. IBDF was created in 1967, also during the military dictatorship.⁵⁴⁰ Conceived and shaped under a repressive political context, the understanding of environmental conservation fueling IBDF’s activities was not one particularly sensitive to the participation of historically marginalized and culturally differentiated socioterritorial subjectivities. Conservation, in those circumstances, was either oriented to the “rational management” of natural resources, to avoid shortages that could hinder their economic exploitation, or strictly associated with the creation of protected areas restricted to scientific research and aesthetic fruition.⁵⁴¹

SUDEPE and SUDHEVEA were created, respectively, within the Ministry of Agriculture and the Ministry of Industry and Commerce, in 1962 and 1967, with the purpose of assisting fishing undertakings and fostering rubber extraction. They were, in the jargon of Brazilian administrative law, *agências de fomento*. “Fomento,” usually translated as “development,” “funding,” or “promotion,” in the case of SUDEPE and SUDHEVEA meant administrative interventions specifically aimed at stimulating fishing and rubber extraction. Environmental protection, therefore, was reduced to “operational islands” within the agencies’ administrative structures, as both were essentially dedicated to *fomento*.⁵⁴² Whereas SUDEPE was created before the military coup by the social democrat president João Goulart to attend to

⁵³⁸ DE MOURA *op. cit.* p. 29.

⁵³⁹ MACHADO, Paulo. *Direito Ambiental Brasileiro*. 27th ed. Salvador: Jus Podivm, 2020, p. 163.

⁵⁴⁰ DE MOURA *op. cit.* p. 15.

⁵⁴¹ CASARIN, Luan Felipe. Uma breve análise do Instituto Brasileiro de Desenvolvimento Florestal (1967-1989): entre o desenvolvimento e a floresta. *Research, Society and Development*, 12(4), 2023, pp. 1-13; CESAR, Christopher Pereira. Instituto Brasileiro de Desenvolvimento Florestal: um estudo evolutivo das competências da instituição (Undergraduate monograph) – Federal Rural University of Rio de Janeiro 2010.

⁵⁴² GOUVEIA, Maria Teresa. As conceituações de meio ambiente praticadas pelo corpo técnico do Instituto Brasileiro de Meio Ambiente (Ibama) na formação de sua cultura organizacional (Doctoral Dissertation) – State University of Rio de Janeiro, 2011, p. 53.

real demands of the fishing sector (both industrial and artisanal), SUDHEVEA was already conceived as part of the colonization policies envisioned by the military regime to the Amazon. As the second rubber cycle had already entered into decline by 1967, the purposes of SUDHEVEA assumed as much geopolitical as economic contours.

When Ibama was created, all these different institutional backgrounds had to come together under a single roof. The miscellany finds expression in the definition of Ibama's purpose by its foundational statute: "to coordinate, execute and enforce the National Environmental Policy and the preservation, conservation and rational use, inspection, control and promotion [*fomento*] of renewable natural resources." Coordination of the National Environmental Policy was a competence previously exercised by SEMA; preservation, conservation, rational use, inspection, and control were more immediate responsibilities of IBDF; and promotion of renewable natural resources was a function primarily attributed to SUDEPE and SUDHEVEA. This mix of varied attributions, different understandings of "environment," "conservation," and "development," and distinct organizational cultures, however, was not without conflict.

An interesting first-hand account of how tumultuous was the merger's aftermath is given by Maria Gouveia, whose dissertation investigated the multiple concepts of environment coexisting within Ibama in its early years. She worked at SEMA before being allocated to Ibama's division of ecosystems. The merger process, in her words, "was devoid of any space for the promotion of mobilization and dialogue." Servants inherited from SEMA, IBDF, SUDEPE and SUDHEVEA had divergent interpretations of how to execute the instruments provided for in the National Environmental Policy. Former IBDF agents had the 1965 version of the Forest Code as their main normative reference, deliberately disregarding later modifications made to it by the National Environmental Council (Conama). Part of SEMA's staff saw the inauguration of another agency as unnecessary and feared that their prior pivotal role in policy articulation could be diluted in the new institutional environment. Some servants coming from SUDEPE and SUDHEVEA recalled the transition as a "traumatic rupture," as they had to completely "forget what was done before" in terms of *fomento* and, "overnight and without any guidance," "learn from scratch" a whole new set of skills in order to deal "with the situation of the environment."⁵⁴³

Gouveia was not the only one to call attention to the conflictual atmosphere of Ibama's bootstrapping. In 1992, a report commissioned by the government to the consulting firms Price

⁵⁴³ GOUVEIA, *op. cit.* p. 60.

Waterhouse and Geotécnica identified a “conflictive organizational environment” and “lack of internal integration” as weak points of the newly created organization, problems associated with what the consultants called “the four origins dilemma.” The report’s goal was to provide an institutional diagnosis and draw recommendations for Ibama’s structuration. Hiring international private consulting groups was a practice quite in line with the new managerialism ideals that informed Brazilian public administration during the 1990s. Alongside fragmentation, the consultants pointed out the following fragilities undermining Ibama’s potential: lack of clearly defined mission and objectives, deficit of informatization, diffuse internal attributions, inefficiency of training mechanisms, understaffing, absence of guidelines and policies, and inefficacious use of resources. Conversely, the agency would have as positive features certain “islands of motivation” and “technical excellence” among its personnel, great institutional capillarity, capacity to raise external resources, perception of the need for integration, and deep dissatisfaction with the state of affairs, framed in the report as a condition sine qua non to improvement.⁵⁴⁴

In the years that succeeded the creation of Ibama, the resolution of daily conflicts arising from the different understandings of environment, conservation, and development possessed by former SEMA, IBDF, SUDEPE and SUDHEVEA servants led to a gradual stabilization, consolidation, and uniformization of the agency’s core, a process Gouveia called “the environmentalization of Ibama.” In the course of this process, the “developmentalist” remnants from SUDEPE and SUDHEVEA were almost totally erased. That was not only the perception of the servants absorbed by Ibama (“today, fishing is already out [of the agency’s scope], rubber is also out”),⁵⁴⁵ but also the subject of a legal opinion issued together with the report by Price Waterhouse and Geotécnica. “Fomento,” according to the legal opinion, despite being mentioned in Ibama’s foundational statute, was “not the main goal of the agency,” as it needed to be interpreted as “strictly subordinated to the National Environmental Policy,” that is, seen solely as a reminder that “socioeconomic development can be made compatible with environmental conservation and ecological balance.”⁵⁴⁶ This reasoning may seem byzantine today, but at the time it provided subsidy to the first bifurcation faced by Ibama in the shaping of its organizational culture: “fomento” was sidelined and eventually faded from the organization’s identity.

⁵⁴⁴ PRICE WATERHOUSE; GEOTÉCNICA, Fortalecimento institucional do Ibama. Archived in Ibama’s library, 1992, p. 18.

⁵⁴⁵ GOUVEIA, *op. cit.* p. 61.

⁵⁴⁶ PRICE WATERHOUSE; GEOTÉCNICA, Fortalecimento institucional do Ibama. Archived in Ibama’s library, 1992, p. 10.

Elements stemming from SEMA and IBDF, on the contrary, projected themselves onto the agency's future and initially prevailed in imprinting a mark on the organization's identity. They were, nonetheless, often in collision with each other. Servants coming from SEMA, for instance, were inclined to understand the environment as "socially constructed territory," whereas those coming from IBDF tended to see it mostly as "physical-geographic space."⁵⁴⁷ As we will see in the next sections, this proto-socioenvironmentalism of SEMA, if one could call it such, became more and more dominant within Ibama as the years went by, even though IBDF's conservationist approach has never completely vanquished among the more hardline enforcement units. With time, there was a certain accommodation of servants in different divisions of Ibama: those derived from SEMA ended up being allocated to environmental protection and licensing, while those from IBDF went to the division of biodiversity and forests. "Old rancor" among servants, as one agent interviewed by Gouveia framed it, gradually gave way to "coexistence."⁵⁴⁸

Internal disputes for the meaning of environment, however, were not the only instantiation of the fierce "battle for jurisdiction" fought by and in Ibama in the dawn of Brazil's redemocratization and the wave of institutional rearrangements that followed suit. Ibama also had to go through the demarcation of its external boundaries vis-à-vis other organizations, a task that was particularly salient regarding Ministério Público. Strongly empowered by the Public Civil Action Act (Law No. 7,347/1985) and the Constitution of 1988, Ministério Público emerged in the new democratic order as a permanent institution (that is, whose existence cannot be suppressed even by constitutional amendments) with a wide range of competences, among which prosecuting criminally liable conducts and defending collective interests. As we saw in chapter 2 while reviewing literature on prosecutorial enforcement, two key instruments for the defense of collective interests (which in Brazil indisputably encompass socioenvironmental rights) are public civil actions and conduct adjustment agreements.

Institutions legitimated to file public civil actions and sign conduct adjustment agreements are exhaustively listed by the Public Civil Action Act. Besides Ministério Público, the list includes the Defensoria Pública (a permanent institution whose main competence is promoting human rights and defending individual and collective rights of those in need), the Union, states and municipalities, public autarchies, state companies, mixed-capital companies, public foundations, and civil society associations constituted for at least one year that have the

⁵⁴⁷ GOUVEIA, *op. cit.* p. 96.

⁵⁴⁸ GOUVEIA, *op. cit.* p. 64, 98.

protection of the environment (or the rights of racial, ethnic, or religious groups, public and social heritage, among other hypotheses) within their purposes.

Ibama's status in the new constitutional order was not that of a permanent institution but of a "public autarchy." Technically, autarchies are part of what is called *indirect* public administration: they are organs subordinated to the Executive branch while endowed with legal personhood and administrative and financial autonomy. As a public autarchy, therefore, Ibama is equally authorized to file public civil actions and sign conduct adjustment agreements to protect environmental rights and claim civil reparation for collective environmental damage. Here we find a first overlapping between the sphere of action of Ibama and Ministério Público, an overlay that, up to this day, has consequences for the relationship (mostly cooperative, but sometimes conflictive) between these two public organs. This first overlapping between Ibama and Ministério Público regarding the defense of environmental interests is, to a certain extent, "intentional" or "by design," in the sense that the multiplicity of legitimate plaintiffs was foreseen by the Public Civil Action Act as a guarantee that collective interests would not be left unprotected. The defense of collective rights should be taken so seriously in the new constitutional order that it was considered better to create an endless source of positive conflicts of jurisdiction (when two or more organs claim to be competent over the same subject) than run the risk of neglect and inertia in a situation of strict compartmentalization of competences among the agencies.

In the early 1990s, however, a second overlapping between the scope of action of Ibama and Ministério Público started to take form, this time regarding criminal persecution of environmental illicit acts. At that point, there was already the understanding that illegal deforestation was simultaneously subjected to criminal, civil and administrative liability, and that these three spheres are autonomous (acquittal or conviction in one sphere does not bind the others). Civil liability requires three elements (action, damage and a causal nexus linking both) and entails a duty to compensate or make reparation for the damage caused by the offense. Criminal liability refers to behaviors statutorily qualified as crimes and, in ultima ratio, punishable with imprisonment. Administrative liability refers to behaviors statutorily qualified as administrative illicit acts and cannot be punished with imprisonment.⁵⁴⁹

At the beginning of the New Republic, it had not been yet consolidated that criminal persecution should be a competence privately held by Ministério Público. This was particularly troublesome in relation to illegal deforestation because the Forest Code of 1965 explicitly

⁵⁴⁹ GOULART, Catarina; BRAUNER, Maria Claudia. A tríplice responsabilidade ambiental e a responsabilidade penal da pessoa jurídica. *Juris*, 26, 2016, pp. 71-87.

authorized employees of forest agencies “to initiate, preside over and carry out police inquiries, draw up arrest records and initiate criminal lawsuits in cases of crimes or misdemeanors involving forests and other forms of vegetation, work instruments, documents and products resulting from them.” This provision allowed for the consultants of Price Waterhouse and Geotécnica to write in 1992 that “in case of criminal infractions established in forestry legislation, Ibama is competent to initiate criminal investigations and criminal lawsuits as determined in articles 32 and 33 of the Forest Code. [...] Therefore, there is no dependency nor subordination; both institutions have procedurally the same degree of competence.”⁵⁵⁰ This second overlapping, differently from the one concerning collective interests, was not an intentional consequence of legislative design but rather derived from the non-revocation of the old Forest Code, whose procedural norms on crimes or misdemeanors involving forests remained in force in a changing institutional context.

The two points of overlay between the attributions of Ibama and Ministério Público – to file public civil actions and sign conduct adjustment agreements, on the one hand, and lead criminal persecution against environmental illicit acts, on the other – played an important role in the first years of the new constitutional order, at a time when the newly created Ibama was still drawing and asserting its organizational boundaries. By now, both issues have already been resolved. Ibama’s legitimacy to file public civil actions and sign conduct adjustment agreements has been confirmed in different court rulings.⁵⁵¹ Furthermore, no one contests that criminal persecution is an exclusive competence of Ministério Público, while Ibama is primarily restricted to the administrative dimension of environmental protection.

Notwithstanding this gradual accommodation and definition of attributions that took place during the first decade of the New Republic, a slight tone of rivalry still seems to permeate institutional relations between Ibama and Ministério Público to this day; relations otherwise mostly characterized by cordiality and cooperation. Ibama servants and federal prosecutors interviewed for this research praised each other’s work much more than they complained about it. Criticism from prosecutors to the environmental agency, when there was any, was directed at Ibama’s involvement (or perceived lack thereof) in “Amazônia Protege,” a project headed by Ministério Público aiming at filing massive amounts of public civil actions against deforesters

⁵⁵⁰ PRICE WATERHOUSE; GEOTÉCNICA, Fortalecimento institucional do Ibama. Archived in Ibama’s library, 1992, p. 53.

⁵⁵¹ See decision of the 1st Federal Regional Court (TRF-1) in the procedure No. 003061-39.2008.4.01.4100. <<https://arquivo.trf1.jus.br/PesquisaMenuArquivo.asp?p1=200841000030649&pA=200841000030649&pN=30613920084014100>>. Accessed on 10 October 2023.

in the Amazon. Prosecutors also appeared to want to have a say in the definition of Ibama's inspection targets (especially in what concerns the beef chain, to redirect inspection to slaughterhouses that did not sign conduct adjustment agreements with Ministério Público). Ibama servants, in their turn, criticized the softness of the conduct adjustment agreements signed by Ministério Público with slaughterhouses. Given the prosecutors' reluctance to enforce the breached agreements in court even with evidence of recurrent violations, Ibama decided to embargo and fine non-compliant slaughterhouses in the scope of an operation that, in the account of a servant, aroused the discontent of some members of Ministério Público. At stake in these disputes is the prerogative to autonomously plan strategies of environmental protection in the Amazon, as opposed to the task of subordinately executing orders delegated from another organization.

Returning to the period subject of this chapter, by 1997 it still was not clear to Ibama's staff, to the government, or to the community of policy experts what the agency's focus in fact was. In its first seven years of existence, Ibama had been directed by twelve different presidents (meaning an average presidential term of only seven months), prompting a scenario of impermanence and leadership turnover that further compounded the difficulties inherited from the merger. The situation was so confusing that a team of employees of the Ministry of the Environment and the Ministry of State Administration and Reform was commissioned to elaborate another proposal for restructuring Ibama. Their report was elaborated in a broader context of administrative reform that took place during the presidency of Fernando Henrique Cardoso. The reform was headed by the economist Luiz Carlos Bresser-Pereira, then Minister of Federal Administration and State Reform, and deeply inspired by (although substantially differing from) the British and the Interamerican Development Bank's experience with the application of "New Public Management" principles.⁵⁵² The core idea underlying Bresser-Pereira's plan was to replace a "bureaucratic administration" – described as "rigid, ineffective, focused on itself and internal control," and "based on *a priori* control" – with a new "managerial administration" that would be "flexible, efficient, focused on serving the citizens/clients and "based on *a posteriori* control."⁵⁵³

In the evaluation of the 1997 report, to be translated to Ibama's institutional reality this replacement should take the form of a "management contract" [contrato de gestão] signed

⁵⁵² LEITE, Leonardo Queiroz. História da Reforma Gerencial do Estado de 1995 (Doctoral Dissertation) – Getúlio Vargas Foundation, 2019.

⁵⁵³ BRAZIL. Ministério da Administração Federal e Reforma do Estado. Plano Diretor da Reforma do Aparelho do Estado. Brasília, 1995, p. 13-18.

between Ibama, the Ministry of the Environment, and the Ministry of State Administration and Reform. The contract would specify the “individual and joint responsibilities” of each organ, their respective “strategic objectives, goals, performance indicators, and resources necessary for their fulfillment,” as well as the “products” to be delivered by Ibama within a given time. As a counterpart for committing to these contractual obligations, Ibama would be “rewarded” by being elevated to the status of an *agência executiva*, which in practical terms means greater autonomy (reflected, for instance, in the prerogative of enacting the bulk of the agency’s regulatory framework through internal ordinances instead of presidential decrees).⁵⁵⁴ The signing of fixed-term, output-oriented *contratos de gestão* was perceived by reformers as the “key instrument” to clarify Ibama’s institutional objectives and transform them into “feasible operational actions.”⁵⁵⁵

Besides reinforcing the earlier diagnosis elaborated by the consultants of Price Waterhouse and Geotécnica, the authors of the 1997 report emphasized the need for decentralization (supplementary action by Ibama in areas under the responsibility of subnational governments should be strictly transitory); internal integration (the goals of Ibama’s decentralized units should be coordinated under a single institutional strategy); clearer separation of functions with other organs of Sisnama (while Conama’s scope is *national*, Ibama’s is *federal*), and standardization of management procedures (avoiding “personalism,” individual pursuit of “implicit policies” and “random resource allocation” based on “political affinity”). The authors highlighted the importance of supporting “spontaneous leaderships,” prospecting “effective political sponsorship,” and holding periodic training and evaluation in the process of overcoming the four origins dilemma and forging a new organizational identity. They also suggested Ibama should partner with NGOs to raise awareness in civil society about the role of subnational governments in environmental protection, encouraging citizens to direct demands to these organs.⁵⁵⁶

Notwithstanding the efforts employed by the Ministry of State Administration and Reform, plans to transform Ibama into an *agência executiva* never got off the paper. There is no documental evidence attesting to the signing of *contratos de gestão* by Ibama with that purpose. In 1999, an auditor of the Federal Audit Court stated that studies on the matter were still “in progress” and the terms of the *contratos de gestão* were “still being negotiated” with the Ministry of Administration and State Reform. In 2002, one year before the change of

⁵⁵⁴ DI PIETRO, Maria Sylvia. *Direito Administrativo*. 33th ed. São Paulo: Forense, 2020, p. 1069-1070.

⁵⁵⁵ BRAZIL. Ibama. Projeto de Reorganização Institucional. Archived in Ibama’s library 1997, p. 16.

⁵⁵⁶ BRAZIL. Ibama. Projeto de Reorganização Institucional. Archived in Ibama’s library 1997, p. 14-17.

administration following Lula's election, a third report on Ibama's institutional restructuring was elaborated, this time by the agency's own staff. Attached to the report, there were a draft *contrato de gestão* covering Ibama's core competences and a proposal to outsource Ibama's "non-core" competences (such as provision of infrastructure in protected areas) to civil society organizations [*organizações sociais*]. Contrasting these fragments with PPCDAm's policy documents and other reports elaborated on Ibama's organizational structure in the coming years, it seems that these two managerial strategies pursued under Cardoso's presidency – transforming Ibama into an *agência executiva* and delegating a portion of its functions to *organizações sociais* – were abandoned when Lula's and Marina's appointees took office in the agency, as we will see shortly.

Concomitant to and way more important than the attempt to reform Ibama under the aegis of new managerialism, the Environmental Crimes Act (Law No. 9,605/1998) was enacted in 1998. The statute represented a turning point in Brazil's environmental policy and played an essential role in the process of organizational differentiation undergone by Ibama in its initial decade of existence. It empowered the agency with more robust instruments to conduct environmental inspection, by establishing criminal and administrative penalties for conducts harmful to the environment, as well as special procedural rules for criminal and administrative proceedings regarding environmental violations. With the enactment of the Environmental Crimes Act, Brazil became one of the few countries to have an "environmental criminal law,"⁵⁵⁷ and perhaps the country with the strictest environmental criminal law of all. One respondent described eloquently the significance of the "stronger legal tools to enforce behavior" provided by the Environmental Crimes Act to the awakening of a certain "latent power" in Ibama:

It was a constitutional order as we know it, but there was no stronger legal tool to enforce behavior. In 1998, for the first time Brazil created an environmental criminal law. Because there was the fauna law, the fishing law, the Forestry Code and so on, but they all had administrative punishments. And until then Brazil had not structured itself to have a well-finished organization, a well-finished common tool to impose behavior in the environmental area. [...] In 1998 the Environmental Crimes Act was created and it became a heavier issue from the point of view of inducing social behavior on the actions of the state, because [environmental offenses] became a crime. So, that functional device started to have to be enforced. As environmental crimes have to do with the administrative sphere, which is Ibama's attribution, society started to bring to Ibama a kind of power that did not exist before, [that was] latent, potential not yet exercised. (Interview with an Ibama servant).

The approval of a highly restrictive command and control regulation of the caliber of the Environmental Crimes Act, in the perception of the same servant quoted above, was only

⁵⁵⁷ DE MOURA, *op. cit.* p. 18.

possible because it happened in an unrepeatable window of opportunity opened by the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 and enabled by the benightedness of the agribusiness on the disruptive potential of environmental policies. Enthusiasm for having hosted an international mega-event joyfully met the ignorance of landowners of the impacts that the advance of an environmental agenda could have on their economic activities (or their skepticism about the efficacy of its implementation), and the ruralist caucus was not particularly willing nor able to offer effective opposition in this initial moment. This changed as soon as environmental law enforcement began to bite harder during the full-fledged implementation of PPCDAm and the redistributive effects of environmental and territorial protection became clearer to landowners.

From 1989 to 2002 the environment became an important issue for the nation. There was the UN Conference in 1992. The National Congress, the same that today is blocking a lot of things, approved everything easily. Why? Because it was cool, it was beautiful, it drew attention. Nobody thought about the practical consequences, not even the ruralist sector, of what was actually going to happen. (Interview with an Ibama servant).

The Environmental Crimes Act provided for strict rules regarding both criminal and administrative liability. As mentioned above, the same act of removing vegetation in disconformity with legal rules can ensue criminal and administrative sanctions in Brazil, as the two spheres are autonomous from each other. In terms of criminal penalties, for instance, the Environmental Crimes Act punishes the destruction or damage of vegetation in permanent preservation areas with one to three years of imprisonment plus a fine. (Whereas it should be noted that, under Brazilian criminal law, incarceration *must* be replaced by alternative sanctions such as community service if the act carries a sentence not exceeding four years, plus other conditions). In terms of administrative penalties, the statute authorized environmental agents to issue warnings and fines, seize “animals, products and by-products of fauna and flora, instruments, items, equipment or vehicles of any kind used in the offense,” destroy products, suspend sale or fabrication of goods, demolish constructions, and embargo activities as part of their regular exercise of “police power.” Apparently, this was the first time that the expression “police power” was employed in a legal text in connection with environmental protection – the meaning and implications of such an “environmental police power” are more extensively discussed in chapter 7.3.

A cascade of administrative norms was approved in the wake of the enactment of the Environmental Crimes Act to give concretion to the legislative piece by regulating inspection activities in more detail. Here we can cite the Administrative Act [*Portaria*] No. 53-N/1998, which approved Ibama’s first Manual of Inspection; the Decree N° 3.179/1999, which described

conducts harmful to the environment that amount to administrative offenses and detailed procedural rules on administrative sanctions; the Administrative Act [*Portaria*] N° 230/2002, which approved Ibama's bylaws; and the Normative Instructions [*Instruções Normativas*] N° 7/2002 and 8/2003, which structured the phases of the administrative sanctioning procedure within Ibama.

At this point, it may be worthy to take a snapshot view of how an administrative sanctioning procedure related to illegal deforestation should be structured under the above-mentioned norms. An administrative sanctioning procedure has four phases: detection, inspection, judgment, and enforcement. Illegal deforestation could be detected through multiple information channels. According to Ibama's manual, inspection actions could be (i) programmatic, when triggered by a previously established inspection plan; (ii) ordered, when commanded by superior solicitation; (iii) judicial, when determined by court order or request from the Ministério Público; (iv) reported, when launched in response to formal and informal denouncements; (v) supplementary, when covering up the inertia of environmental agencies of states and municipalities; (vi) emergency, when necessary to curb infractions of high environmental impact; and (vii) ex officio, when carried out on the agent's own initiative. However, Ibama's most important source of information to detect illegal deforestation already was, by far, a satellite system developed and monitored by Inpe called Deter. At that time, the system had a maximum resolution of 25 hectares.⁵⁵⁸

After detecting a deforestation location,⁵⁵⁹ Ibama's inspection coordinators assigned a team of rangers to conduct an on-site inspection. Coordinators usually stayed in the Coordination of Inspections and Operations, a subdivision of the Board of Environmental Protection [*Diretoria de Proteção Ambiental*] located in Ibama's headquarters in the federal capital, Brasília. Rangers, in turn, were mostly allocated in decentralized units (then called *Gerências Executivas*) spread across the country. Inspection teams should be composed of at least two agents.

Upon arriving at the chosen location, the rangers' inspection goals were twofold: (1) to collect evidence of materiality and authorship of illegal deforestation and (2) to take precautionary measures to immediately cease the practice of illegal deforestation and guarantee

⁵⁵⁸ SCHMITT, Jair. *Crime sem Castigo: a efetividade da fiscalização ambiental para o controle do desmatamento ilegal na Amazônia*. (Doctoral Dissertation) – University of Brasília, 2015, p. 29-32; BRAZIL, INPE. *Deter*. Available at: <<http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/deter/deter>> Accessed on 01 March 2021.

⁵⁵⁹ RAJÃO, Raoni; VURDUBAKIS, Theo. On the Pragmatics of Inscription: Detecting Deforestation in the Brazilian Amazon. *Theory, Culture & Society* 0(0), 2013, pp. 1-27, p. 8.

that the application of sanctions would be effective. In theory, precautionary measures included, as we saw, embargo, seizure, destruction, demolition or suspension.⁵⁶⁰ Collecting evidence included, for instance, taking the testimony of individuals eventually found on site or in nearby farmhouses, checking on whose behalf the property located in those geographical coordinates is officially registered, and photographing signs of intentionality. Wooden logs obstructing side roads, grass seeds in the soil, clandestine airstrips, and fallen trees pointing in the same direction, all these elements indicate that deforestation was not accidental but premeditated, hastened by the use of a massive iron chain pulled by two tractors (the *correntão*) and motivated to open pasture. After the inspection, the rangers produced a report detailing the evidence collected and the actions executed on-site, whenever possible with colored pictures attached.⁵⁶¹

If the collected evidence was considered substantive enough to prove authorship and materiality, the inspection report produced by the rangers was transformed into an infraction notice [*auto de infração*], which immediately opened a sanctioning administrative procedure. The offender was notified and given twenty days to present a written defense. After receiving the defense and consulting the legal opinion of Ibama's attorneys (public prosecutors previously assigned to the agency's legal team) on the case, the so-called "judging authority" had thirty days to decide upon the matter. The first judging authority was the Executive Manager [*Gerente Executivo*] in charge of the decentralized unit under which jurisdiction the offense was committed.⁵⁶² This means that the administrative decision is issued by the same agency playing the role of the accuser, for which reason the decisional act is not properly a judgment but a homologation, even though both words are employed as synonyms by the legal texts. Homologation expresses better that the kind of administrative judgment at stake in Ibama's sanctioning procedure is not a decision handed down by a third party uninvolved in the conflict but rather a ratification of an act previously issued by the same agency.

If the infraction notice was homologated and the defendant convicted, in addition to confirming the precautionary measures of embargo, seizure, destruction, demolition or suspension mentioned above, the responsible Executive Manager should apply a fine and could impose a prohibition to enter into contracts with the state for up to three years and a suspension of participation in financing programs offered by the state. Fines could range from BRL 1,500 to BRL 50,000 per hectare unlawfully removed.⁵⁶³ The offender had the right to appeal to

⁵⁶⁰ BRAZIL. Law Nº 9.605/1998, article 72.

⁵⁶¹ RAJÃO; VURDUBAKIS, *op. cit.* p. 1-27.

⁵⁶² BRAZIL. Ibama. Normative Instruction No. 7/2002, article 14.

⁵⁶³ BRAZIL. Decree No. 3.179/1999, articles 1º, 2º, and 25 to 40.

Ibama's President for a second trial. Subsequently, he could scale up and require a third trial with the Ministry of the Environment. Lastly, the offender could appeal the Ministry's decision and request a fourth trial to the National Environment Council (Conama).⁵⁶⁴ In parallel, at all times the offender could file a judicial lawsuit seeking to quash the infraction notice, as the exhaustion of administrative proceedings is not a requirement for an individual to access the judicial system in Brazil.

If the infraction notice was not reviewed and quashed in the Judiciary, and if the condemnatory decision was sustained by all instances of appeal, the procedure entered its last phase: enforcement. Seized products were given proper destination (destroyed, sold or donated to non-governmental "institutions with charitable purposes"). The offender was given five days to pay the fine voluntarily with a 30% discount.⁵⁶⁵ The fine could also be parceled up to sixty installments or "converted into the provision of services to improve and recover the quality of the environment,"⁵⁶⁶ cases in which the 30% discount was not applicable. If voluntary payment did not occur, Ibama included the offender's name in a database of individuals and companies with past due and unpaid pecuniary obligations to the federal public administration.⁵⁶⁷ As Ibama's competences do not include discretion to directly enforce its own decisions against the offender's property (an exception being the precautionary measures), the agency has to file a judicial lawsuit to enforce fine collection through the attachment of the offender's assets.⁵⁶⁸ The subdivision responsible for pursuing Ibama's interests in court was the Coordination of Judicial Litigation, part of the agency's General Attorneyship [*Procuradoria Geral Especializada*], where prosecutors assigned to assist Ibama's interests were located.

The Manual of Inspection enacted in 1998 established the duties of inspection coordinators and inspection agents. These duties include complying with inspection plans; abstaining from favors that imply the receipt of benefits for lodging, transportation, food, or gifts of any kind; participating in training courses; presenting inspection reports; filling out inspection forms "attentively, concisely and legibly" by detailing facts with "objective information and specific legal framework," as to avoid giving cause to annulment of the infraction notice; announcing themselves and approach people in a "polite and formal way" during inspection actions; and keeping secrecy about inspection actions. Given the relevance of documentality to environmental enforcement (even the slightest incongruence in inspection

⁵⁶⁴ BRAZIL. Ibama. Normative Instruction N° 8/2003, article 17.

⁵⁶⁵ BRAZIL. Ibama. Normative Instruction N° 8/2003, article 44, §2°.

⁵⁶⁶ BRAZIL. Ibama. Normative Instruction N° 8/2003, article 25, III and IV.

⁵⁶⁷ BRAZIL. Ibama. Normative Instruction N° 8/2003, article 37.

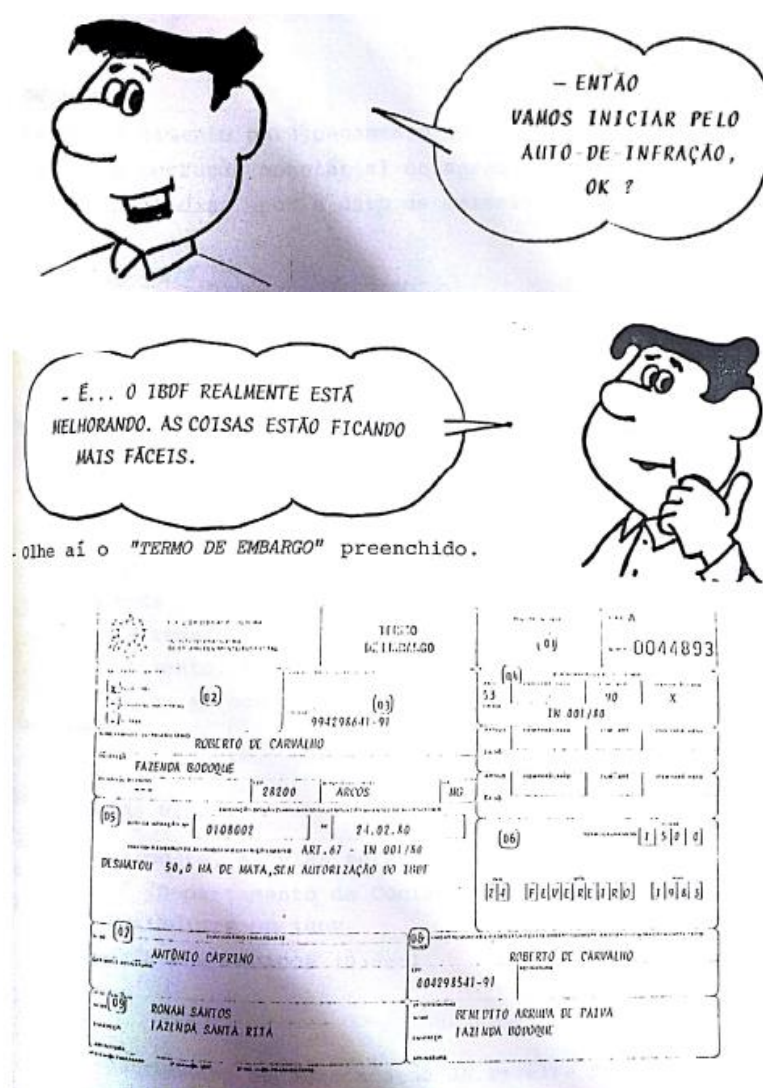
⁵⁶⁸ BRAZIL. Law N° 9.605/1998, article 25 and 71, IV.

documents could be exploited by offenders to judicially quash administrative procedures), the manual made an effort to systematize the different types of forms routinely used in inspection operations. Moreover, the manual posited guidelines for the use of firearms and uniforms. For instance, it forbade the handling of firearms in crowded places, banned the use of high-caliber weapons in urban areas, and allowed for the customization of badges or emblems in the uniforms since they justifiably represent the “singularity” of a determined task or mission).

By providing a clearer and denser protocol for inspection activities, Ibama’s first manual of inspection brought substantial improvements compared to the manuals previously elaborated and used by IBDF and SEMA. Instructions contained in IBDF’s manual had a somewhat childish approach, which to a certain extent infantilized forest rangers and underestimated their capacity to handle documents and procedures. SEMA’s manual did not share this trait, rather providing sober step-by-step instructions on how to fill inspection forms, as well as schematizations of administrative procedures, summaries of specific legislation, and glossaries of technical terms.⁵⁶⁹ SEMA’s manual, however, was more focused on the individual behavior expected from the inspection agent during fieldwork, providing less or no orientation on aspects related to operational planning and infrastructure, such as team assignment and firearm handling. The figure below illustrates how IBDF’s manual instructed agents on the writing of inspection forms. In the first image, one reads “Let’s begin with the infraction notice, ok?”; in the second, “Yeah... IBDF is really improving. Things are getting easier. Here is a filled-out term of embargo.”

⁵⁶⁹ Secretaria Especial do Meio Ambiente (SEMA), “Manual do Fiscal” (archived in Ibama’s library 1988).

Figure 2: Lessons from IBDF's inspection manual

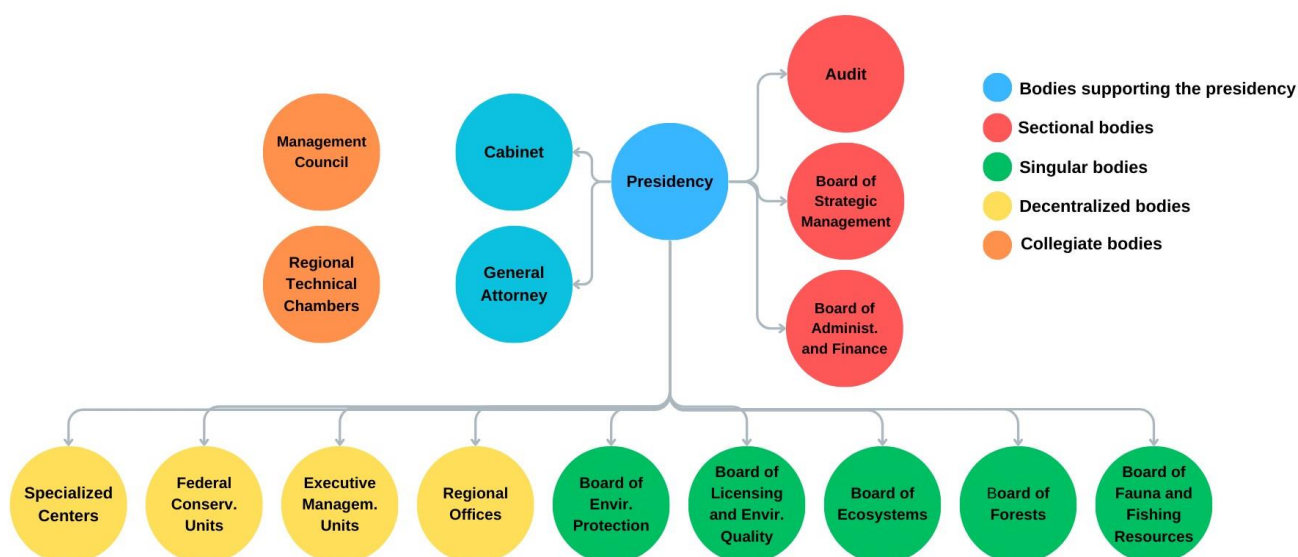


Source: Instituto Brasileiro de Desenvolvimento Florestal (IBDF), Departamento de Contabilidade e Finanças: Sistema de Arrecadação – Manual do Fiscal [n.d.], archived in Ibama's library.

Empowered by the diversity of administrative sanctions provided for in the Environmental Crimes Act and translated into internal procedures by the Manual of Inspection, Ibama started to more clearly associate its institutional image with the activity of inspection. The agency was still responsible for a vast array of competences other than inspection, such as licensing, management of protected areas, registry of chemical substances, standardization of environmental quality norms, control of biological material, prevention of environmental accidents and emergencies, promotion of environmental education, among many others. Yet, one can notice a continued organizational effort to narrow and channel the agency's attributions. By 1998, activities related to *fomento* had already been expelled from Ibama's core identity. Despite being explicitly authorized to file public civil actions and standing in a gray area with regard to the possibility of prosecuting environmental crimes, Ibama centered its institutional

energies in the administrative sphere, only exceptionally adopting the strategy to file public civil actions and never developing the potential to become a criminal persecution body. After being subjected to successive rearrangements since the agency's foundation in 1989, Ibama's organizational chart had the following structure by 2002:

Figure 3: Ibama's organizational chart in 2002



Source: own elaboration based on Decree No. 4, 548/2002. Inspection fell within the responsibility of the Board of Environmental Protection and decentralized units in each of the 27 subnational states.

In this section, we sought to give a detailed account of how the dense web of legal norms enacted in Ibama's first decade of existence structured inspections. But how were these norms implemented in practice? As outlined by Gouveia, command and control operations were the main stage in which conflicts derived from the different understandings of environment, conservation, and development shared by Ibama's servants came to the surface. Having described environmental law enforcement as envisioned by legal texts and institutional reports, let us now examine, with reliance on the testimony of interviewed Ibama servants and related academic literature, how anti-deforestation operations in the Amazon before PPCDAm (that is, roughly from 1998 to 2002) happened *in action*.

7.2 Nodality: anti-deforestation operations before PPCDAm

The respondents' general perception of Ibama's performance in deforestation prevention and control from 1989 to 2002 was that despite undoubtedly representing an advancement in relation to IBDF, the agency's efforts in combating illegalities in the Amazon

were very precarious. In the words of the most senior Ibama servant interviewed, a “joke.” The agency had inherited a mostly untrained staff; monitoring satellite tools had low resolution and a one-year time lag; infrastructure was drastically insufficient; operations lacked strategic planning, media communication plans, and intelligence support. Inspection was centered on volume and physical presence. Collection of evidence on authorship and materiality did not rely on sophisticated technology: cleared area was calculated manually, based on the agents’ step count and the odometer of their vehicles. Ibama’s institutional communication strategy was to announce operations beforehand in the press. Instead of dissuading deforestation, this alerted and drove loggers to hide, frustrating the possibility of catching illegal acts in flagrant.

Most significantly, the instruments available for Ibama to steer compliance – administrative fines, land embargos, and product seizures – were highly ineffective. A derisory percentage of the total amount of issued fines was in fact collected,⁵⁷⁰ since fine collection ended up depending on the costly and sluggish judicial procedure of attachment of assets, and could be defied in multiple instances of administrative and judicial appeal. Land embargos did not entail any financial or commercial consequences for the offender, who was still able to contract credit and sell goods produced in the embargoed area. Even when the agents managed to seize the machinery employed in the illegal activity, geographical conditions made transportation completely impracticable. Thus, the agents ended up having to assign the offenders themselves as trustees of the seized goods. As soon as the agents turned their backs, the bulldozers, chain saws and tractors were put back into use.

In 2001, 2002, what we had in terms of operational capacity in the agency, I felt like a guy in a unit with severe operational limitations. [...] We had an old staff, mostly without training. [...] How could I adopt remote inspection with geomonitring? There was no condition. [...] Deforestation at that time was measured annually; there was no real-time detection system. We received the polygons of deforestation to fight them one year later. Then we called the press, gathered a meeting in Brasília with everyone that would combat deforestation. Rangers and vehicles from all over the country came to Brasília. We announced in the press that we were going into combat. The bandits who were deforesting, ‘oh, they are coming, let’s dismantle [the camp], let’s remove the machinery.’ We went with these vehicles on the main access roads to the Amazon looking for deforestation. We took that data and the instruments we had, to locate more or less where it was, there was no precise GPS yet. [...] Then you get a vehicle, hit the road and boom! There is deforestation. Dammit, where is the guy? He left a long time ago. Did he see in the press that we were coming? Let’s measure [the deforestation]. Then I would take the vehicle, look at its odometer, and make a vertex by driving along the road. We marked a vertex, then counted the footsteps, estimating the size of a human step. We made another vertex and calculated the area. A highly imperfect area. We had to issue an infraction notice over an area we had no way of certifying was really that area. The tractor is there. Can we take it away? No. Then the tractor would be entrusted to the trustee. Then you get the bandit, put the equipment in his hand, and say that this equipment is seized and cannot be operated. Then you leave, and he goes back to using the equipment. It was a joke. [...]

⁵⁷⁰ SCHMITT, *op. cit.* p. 36.

But that was what we had in our hands at that time. We made a lot of effort to fight with the means we had (Interview with an Ibama servant).

What happened until then? Ibama applied a fine, embargoed the area and went to another deforestation spot; applied a fine, embargoed the area and went to another. (Interview with an Ibama servant).

At that time, we had no leg. The idea of communication was totally wrong. They wanted to stop deforestation based on 'I'm coming over there.' Because we didn't have the tools to let the guy do it. 'I'm coming!' Then everybody stopped [deforestation]. That was the strategy (Interview with an Ibama servant).

As we saw, Ibama was already authorized to apply the sanctions of fine, seizure or destruction of the products used in the infraction, embargo, total or partial suspension of activities, and temporary exclusion from public procurement and financing programs. Nonetheless, the sanction of destruction was not routinely adopted, as the hypotheses for its application were not specified in Ibama's internal regulations yet. Fines could be contested in up to three levels of appeal, without prejudice of judicial review at any time. If the infraction notice was not quashed in the Judiciary, and if the condemnatory decision was sustained by all instances of appeal, the seized products should be either destroyed, sold or donated to non-profit entities, and the offender was given a deadline to pay the fine voluntarily. The fine could be converted into the provision of services to improve and recover the quality of the environment. If voluntary payment did not occur, Ibama had to file a judicial lawsuit to enforce the fine collection through the attachment of the offender's assets.

In other words, even when the rangers managed to overcome all operational difficulties regarding the collection of evidence in the field to prove authorship and materiality and were able to open an administrative case against an identified individual, the consequences for that person were practically zero. Offenders commonly contested in court the motivation for Ibama to inspect that particular slot of land, arguing the agents' choice of target was not systematic but casuistic, and insinuating they intended to solicit bribes.⁵⁷¹ Quite often offenders were granted favorable judicial rulings, as it was not unusual for judges at that time to tacitly deny application of the Environmental Crimes Act.⁵⁷² Moreover, even when after long administrative

⁵⁷¹ RAJÃO; VURDUBAKIS, *op. cit.* p. 8.

⁵⁷² Archival research conducted by Paulo Barreto *et. al.* in the Federal Court of Appeal of the 1st Region (which has jurisdiction over all Amazonian states) found that 52% of all appeals against Ibama's precautionary measure of seizure were reverted by the Judiciary. The judges' main arguments for restituting the seized products to landowners ("the offender proved ownership over the product"; "the product is irrelevant for the proceedings"; and "the product is a work tool") were not grounded on the Environmental Crimes Law (Law N° 9,605/1998, as we already saw), but on the Criminal Procedure Code. In the Brazilian law-world, the maxim *lex specialis derogat legi generali*, more than a persuasive convention, is a statutorily binding rule (Law N° 4,657/1942, article 2°, §2°). Applying the general Criminal Procedure Code instead of the specific Environmental Crimes Law to decide over the restitution of products seized in environmental inspections is, therefore, unlawful. An inquiry about the

and judicial proceedings the sanctions were confirmed, enforcement was still extremely weak. Embargos did not prevent the offender from making profits in the area, seizure was a fiction due to the difficulty of transportation, and attachment of assets was a virtually impossible remedy, owing to countless delaying procedural tactics and other wealth shielding mechanisms (e.g. interposition of henchmen, *laranjas*) that have a long-standing tradition in Brazil's history.

The difficulties undermining Ibama's inspection performance were compounded by a lack of strategic planning. The set of rules defining the agency's competencies and attributions available at the time – mainly comprised of the National Environmental Policy, the Forest Code, the Environmental Crimes Act, and subsequent internal regulations – was not sufficient to provide a sense of orientation, a horizon of motivation to the agents in their daily tasks. It was not capable of coordinating organizational action and failed to articulate a representation of Ibama's identity disclosing what the organization *ought* to be about. Despite countless efforts to reorient Ibama's focus – successive institutional restructurings, the attempt at putting institutional goals into contractual clauses and delegating functions to NGOs, – they have proven insufficient to generate concrete results in terms of reducing deforestation in the Amazon, which reached its historical peak of 29,059 km² in 1995 and its second historical peak of 25,396 km² in 2002, under Ibama's watch. As we will see shortly, in the respondents' reconstruction of this conundrum of events, such a situation of indeterminacy radically changed in 2004 with the implementation of PPCDAm.

Despite the overall perception of ineffectiveness and precariousness as characteristics jeopardizing Ibama's performance from 1989 to 2002, two important internal developments were accomplished in this period. The first was the internalization and stabilization of the meaning of “environmental police power” as a guiding concept for inspection activities. The proto-doctrine of environmental police power, as elaborated and put into practice by Ibama's first inspection coordinators, can be read as a forerunner of the doctrine of deterrence, which was a set of guidelines of action later elaborated in the mid-2000s that played a key role in the expressive reduction of deforestation achieved under PPCDAm. The second relevant measure taken before PPCDAm that created preconditions to the policy's later success was the authorization for the organization of Ibama's first civil service exam aimed at hiring new environmental agents. Both developments deserve a closer look.

sociological motivations of such judicial resistance could draw upon existing analysis of the socioeconomic profile of Brazilian judges. Cf. BARRETO, Paulo *et al.* A destinação dos bens apreendidos em crimes ambientais na Amazônia. Belém: Imazon, 2008, p. 25.

7.3 Treasure: the implied effects of police power, or how to get away with guns

The murder of the Brazilian Funai agent Bruno Pereira and the British journalist Dom Phillips by order of financiers of illegal fishing in the indigenous land Vale do Javari, Amazonas, in June 2022, added dramatic contours to the long-standing issue of firearm possession by Funai personnel. According to the agency's foundational statute, the "exercise of police power in matters pertaining to the protection of indigenous peoples," stands among its attributions since 1967.⁵⁷³ Yet, still today Funai considers this provision as "generic and insufficient," thereby requiring additional regulation to be fully applicable.⁵⁷⁴

Seen as needing more robust legal support, firearm possession by Funai agents and firearm storage in Funai bases have thus been sporadic and unsystematic. The base located in Vale do Javari, for instance, kept a few weapons, but these were removed in 2020 by order of the Bolsonarist military officer nominated to coordinate the unit. This removal (simultaneous to the approval of presidential decrees easing access to weapons by civilians)⁵⁷⁵ was a factor that facilitated the killing of Bruno Pereira and Dom Phillips, who went out on an expedition in a notoriously conflictive area. The intention of Bolsonaro's appointees at the time was to remove firearms from all Funai bases in Amazonas,⁵⁷⁶ which increased calls by Funai agents and the public opinion for urgent regulation of firearm possession by the agency's personnel. Although Bolsonaro's intent of removing weapons from all Funai bases was not fully achieved, the long-awaited regulation of firearm possession by Funai still did not happen, and agents to this date have to request support from the Federal Police and Ibama to carry out higher-risk operations.

Differently from Funai, the right of Ibama's agents to use weapons on duty is not under dispute today. As early as 1998, updated training in firearm handling was already considered an "obligation" of inspection agents,⁵⁷⁷ and probably the first image that comes to the mind of Brazilians today when they think of Ibama is an armed ranger burning tractors in the middle of the forest. This difference in treatment is often explained with recourse to Law No. 10,826/2003

⁵⁷³ BRAZIL. Law No. 5,371/1967, article 1, VII.

⁵⁷⁴ BRAZIL. Funai. Relatório de Gestão do Exercício de 2014, p. 171.

⁵⁷⁵ Bolsonaro issued more than 40 executive orders facilitating access to weapons by civilians. See INSTITUTO SOU DA PAZ. Relatório Anual 2021. Available at: <<https://soudapaz.org/wp-content/uploads/2022/08/Relatorio-Anual-SDP--2021.pdf>>. Accessed on 10 July 2023.

⁵⁷⁶ LORRAN, Tácio. Governo quer desarmar bases de proteção da Funai em todo o Amazonas" (Metrópoles, 16 June 2022). Available at: <<https://www.metropoles.com/brasil/governo-quer-desarmar-bases-de-protecao-da-funai-em-todo-o-amazonas>>. Accessed on 10 July 2023.

⁵⁷⁷ BRAZIL. Ibama. Administrative Act ("Portaria") No. 53-N/1998, article 5.

[*Estatuto do Desarmamento*] as further regulated by Decree No. 5,123/2004 (and subsequent modifications), which lists exceptions to the general ban on carrying weapons. “Ibama and ICMBio servants designated for the execution of inspection activities” are on the list, while there is no mention of Funai.

Two other legal texts previously invoked to justify the asymmetry were the 1965 Forest Code,⁵⁷⁸ which authorized “forestry officials” [*funcionários florestais*] to possess weapons, and the 1967 Fishing Code,⁵⁷⁹ which allowed officials in charge of fishing inspection to carry defense guns. Arguably, both categories apply to Ibama but not Funai. As the 1965 Forest Code and the 1967 Fishing Code were respectively revoked in 2013 and 2009, the right of Ibama’s civil servants to use weapons today is exclusively based on the 1967 Fauna Code,⁵⁸⁰ which equates officials in charge of hunting inspection with public security agents for purposes of carrying firearms. The agency interprets that every operation to fight illegal deforestation in the Amazon is potentially an action to combat illegal hunting – a creative interpretation, so to speak, necessary due to the difficulty in approving bills that establish more clearly the right of environmental civil servants to carry weapons (we will return to this subject in subchapter 10.1).

Albeit convincing in a legal debate, these two lines of argumentation – Ibama was explicitly listed on Decree No. 5,123/2004, Funai was not; Ibama staff fit into the categories of forestry officials and fishing/hunting inspectors, Funai’s did not – are insufficient to explain the historical reasons for the two organizations to have developed so different understandings about the immediacy and scope of “police power.” Ibama civil servants started using weapons in the 1990s, long before being listed on Decree No. 5,123/2004. Moreover, as Funai was created after 1965, the question of whether its civil servants fit or not into the category of forestry officials and fishing/hunting inspectors for purposes of claiming the right to use weapons had no obvious answer. It was rather the work of reception and interpretation, especially if one considers that the old Forest Code contained a general reference to “forests that integrate indigenous patrimony.” Framing Funai’s agents as officials who operate in indigenous forests and therefore are authorized to carry guns would not have been unreasonable, whereas the possibility of such a direct interpretation has been precluded with the later enactment of Decree No. 5,123/2004.

I took this brief detour on the implications of police power for Funai, a partner agency in combating illegal mining and logging inside indigenous lands, to conjecture about other possible scenarios regarding the material conditions for the exercise of Ibama’s police power.

⁵⁷⁸ BRAZIL. Law No. 4771/1965, art. 24.

⁵⁷⁹ BRAZIL. Decree-Law No. 221/1967, art. 53.

⁵⁸⁰ BRAZIL. Law No. 5197/1967, art. 26.

In the years that followed its creation, the environmental agency could have adopted a more passive stance and refrained from requiring weapons, which would have made it, like Funai, more dependent on support from the Federal Police for higher-risk operations. Nevertheless, Ibama decided to interpret its police power provision – which had a similar wording and legal status to that of Funai – in a radically different fashion.

The next interview fragments were provided by the most senior Ibama employee with whom I had the opportunity to speak. In 1992 he left a public job in strategic planning for a post in Ibama and occupied several leadership positions within the agency, mostly related to inspection, until retiring in 2020, desolated with the dismantling process put in motion by the Bolsonaro government. In his account, upon entering Ibama, he helplessly witnessed illegal hunting and fishing happen “right under [his] nose.” With no protection to approach the offenders, his frustration with impunity grew. He started to reflect upon the impact that stronger police power could have on environmental protection.

When I arrived at [Ibama], I went out to manage turtles, mark dens. When I arrived at the dens, everything was ransacked, the guy was in the lake fishing for turtles. I couldn't do anything. I didn't have any power to do anything. Then I started to think that this agency should have much stronger police power than it does. Because the law says, article 1 of the law that created Ibama, that Ibama is responsible for, first, exercising the power of federal environmental police. It doesn't mean to exercise the power of administrative police to issue notices and I don't know what. No. It is to exercise the power of environmental police. If you think through it, we could even open criminal investigations. I started to realize this and said ‘I am going to set up the biggest federal environmental police force in this Brazilian state.’ (Interview with an Ibama civil servant).

Motivated by the idea of transforming a weak Ibama into the “biggest environmental police force” that Brazil had ever seen, together with other colleagues, the civil servant organized Ibama’s first inspection training course. Initially, this initiative had no authorization from Brasília. In the respondent’s words, he “borrowed some weapons” and “went into the forest” with a group of agents from his unit. The use of weapons in inspection, however, was something far from consensual within the agency in the early 1990s. Opposition came mostly from representatives of Ibama’s civil servant association, who, in the interviewee’s perception, “did not have a culture of confrontation,” and were reticent even about the adequacy of destroying equipment. Not at random, when the General Coordinator of Inspection heard about the inspection course, his first impulse was to threaten to sue the respondent for organizing it. The latter, nonetheless, managed to convince the institution’s leadership of his exegesis and overcome opposition from colleagues who had a different organizational vision for Ibama, by arguing that the institution’s police power was not strictly bound to any complementary regulation, the normative availability of the necessary tools and measures for law enforcement

being implied in the agency's founding statute itself. In the end, the respondent was not sued but promoted, and Ibama started acquiring weapons and training its staff in firearms handling, later working on the draft of an internal regulation detailing rules for the exercise of police power – the manual of inspection published in 1998.

On Lake Araguaia, I watched the guy steal, fish illegally, catch turtles, right under my nose. I couldn't do anything. Then we created an inspection course inside [Ibama's division] in spite of the General Coordination of Inspection in Brasilia, because I found an article in the Internal Regulations of [Ibama's division] that said that it was responsible for inspecting protection areas of chelonians in the Amazon. So I set up my course. I got some guys from my unit, taught them how to use a gun, took some classes in legislation, human relations, and psychology, and we went into the forest. I borrowed some weapons and we went to work. I was not going to let the guy steal animals in my face anymore. Then the general coordinator called me in Brasília and wanted to sue me. I told him: 'it's here, in the law. If there is something [wrong], you should take [the law] down.' Then, on the contrary, I became team leader. (Interview with an Ibama civil servant).

Winning this first “battle” for the meaning of environmental police power triggered a series of internal changes that reshaped the organization's identity completely. After succeeding in convincing his peers to accept weapons as necessary inspection items, the respondent began to steer newcomers into his more effusive notion of environmental police power. Assigned to lecture welcome training courses to new civil servants, the respondent dedicated considerable time in his initial speech to distinguish between “power of the police” [*poder da polícia*] and “police power” [*poder de polícia*]. Although differentiable by a single vowel, the two expressions conveyed opposite ideas.

Poder da polícia, in the doctrine that started to be delineated by the respondent in Ibama's first training courses in the 1990s, was a concept from the dictatorship. It amounted to unchecked violence perpetrated by state agents through illegitimate means to achieve illegitimate ends. In his quite graphic illustration, it was the “power to kill, to shoot, to arrest,” “the power to slap the guy's ear to the ground.” In other words, “the use of force without legal administration.” No state organ in a constitutional democracy has *poder da polícia*, preached the interviewee to his new colleagues, and any arbitrary practice lingering from the dictatorship's cellars could never taint Ibama. Environmental inspections cannot forgo the use of force, for sure, but the operative principle animating this use derives from a completely different normative source and has totally distinct outlines. *Poder de polícia* was the expression that best condensed the deployment of institutionalized violence by a state organ in a democratic constitutional order, restricting the use of force to legitimate means to legitimate ends. It indicates a power conferred and limited by the law, exercised by the state agent within the strict limits of her legal attributions.

I did the same adapted course to receive the newcomers. [...] Let's talk about Ibama's police power. The police? Do you think you have the power of the police [*poder da polícia*]? You don't have the power of the police. You have police power [*poder de polícia*]. [...] It is not the *da*, this concept of power of the police is a concept of the dictatorship. It is a concept of the use of force without legal administration. The power to kill, to shoot, to arrest; the power to slap the guy's ear to the ground. This is the power of the police. At that time, we said, you don't have the power of the police. You have police power. Everybody has police power. I created a lecture presenting Ibama's police power, making comparisons with other police forces and so on, telling what we could do. But it is the police power. Concepts of the dictatorship and the power of aggression, the power to kill, to exchange shots, were still present. Today they are not anymore. I always tell my agents: if you shoot your gun in the middle of the woods, just by shooting, you will respond just as a policeman who shoots on any public road has to respond for the gunshot. There is no such thing as shooting a guy running in the back. You're screwed. It is the progressive use of force. This applies to all agencies. I was demystifying this story [of *poder da polícia*]. Nobody has the power of the police. You have the power of the law. You have a police power that has been constituted by law. [...] This construction, I came building a doctrine, putting in the guy's head so that he would be aware of the powers that he has. I started to make this presentation. The guys would arrive, before taking office, I would present and leave them like this, racking their brains. (Interview with an Ibama civil servant).

As hinted at by the interviewee in the fragment above, one of the first outcomes of the application of the concept of police power to environmental inspections was the construction of the notion of “progressive use of force.” Although this notion was already discussed and practiced when weapons began to be part of the rangers’ routine, it was only inscribed in Ibama’s regulations with the enactment of the second Manual of Inspection in 2009, whose content will be thoroughly analyzed in subchapter 8.1. “Progressive use of force,” then and now, denotes the appropriate selection of forceful means by the environmental civil servant in response to the level of action of the person involved in or suspected of committing an illicit act, a decision that must be strictly subjected to the principles of legality, necessity, proportionality, moderation, and expediency.

Another consequence derived from the application of police power to environmental inspections was a clearer distinction between criminal persecution and environmental police power. By the end of the 1990s, Ibama’s personnel had already internalized that their scope of action was restricted to the administrative sphere, implicitly renouncing the prerogative of opening criminal investigations – notwithstanding that this attribution had been already interpreted as reasonably falling within the agency’s competences by the Price Waterhouse and Geotécnica report in 1992. Correspondingly, the interviewee guided newcomers in differentiating Ibama’s tasks from that of the judiciary police, a category that encompasses the civil and federal police.⁵⁸¹ While the judiciary police (in collaboration with Ministério Público)

⁵⁸¹ Under the 1988 Constitution, the Brazilian public security system distinguishes between five types of police: (i) federal police; (ii) federal highway police; (iii) federal railway police; (iv) civil police; and (v) military police. The federal and civil police have *judiciary* functions, that is, they act in a mediate and repressive way (after the

privatively hold the competence of opening and conducting criminal investigations, the limits of Ibama's administrative police power end with the cessation of the illicit act. Rangers can intervene to stop illicit acts by employing inter alia the measures of embargo, seizure and destruction, but for such acts to have consequences in the criminal sphere, they need to file a criminal denouncement like any citizen and handle the issue over to the judiciary police. As Ibama inspectors are usually the first (sometimes the only) state agents to arrive in remote deforestation spots, even if they have no criminal prosecution role, the idea that their primary mission is "to stop crime," has been gradually consolidated.

You have to understand the following: we are an administrative police. Our infraction notice is an administrative act. Our sanctioning procedure is entirely administrative. We are an administrative police of the Union. But we have the prerogative of exercising police power in the sense of stopping the illicit. PRF [Federal Highway Police, *Polícia Rodoviária Federal*] is an administrative police, it doesn't open inquiries. A prisoner of PRF has to be taken to the Civil or Federal Police. An Ibama prisoner has to be taken to the Civil or Federal Police. It is the administration stopping the illicit act. It doesn't have the power of prosecution. The power of prosecution belongs to the Judiciary Police. Ibama arrests the guy and takes him to the police station. [...] Fulfilling what the law that created Ibama determines, we intervene. The Civil Police is the Judiciary Police of the states; it intervenes when it is necessary. Intervention is to stop the illicit act. I am not the one to open an inquiry against the guy. I am not the one to make a criminal procedure against the guy. But I am the one to stop the crime. To stop crime, I have to have strength. Exercising environmental police power is a coercive measure. It is not asking 'for the love of God, stop it there.' There's no such thing. (Interview with an Ibama civil servant).

After explaining to newcomers where Ibama's police power ends and the judiciary police's duties begin, the interviewee then made a twist in his presentation and challenged the apprentices to answer which of the two institutions, in their view, had the most power. To the trainees' replies (the majority used to say it was the Federal Police), the senior employee countered with a series of prerogatives to intervene in productive activities that appertain exclusively to Ibama. Whereas the police need a warrant to enter farms and a judicial order to embargo land, seize products and destroy equipment, Ibama can do all this ex officio. Consequently, the measures that the environmental agency is authorized to take can be much more efficient in causing financial loss to the offender than those taken within a criminal procedure. Criminal justice in Brazil has historically acted as an instrument to incarcerate the black and poor, with the number of cases in which whites from the middle or upper classes served jail time for crimes related to environmental offenses being virtually close to zero.⁵⁸² In

occurrence of a criminal offense), by investigating individual offenses and assisting the Judiciary. The other three types of police have *ostensive* functions, meaning they carry out immediate prevention and repression, patrolling streets, highways, and railroads.

⁵⁸² BRAZIL. Departamento Penitenciário Nacional (Depen). Levantamento Nacional de Informações Penitenciárias Infopen - 2014, p. 69. Available at: <<https://www.justica.gov.br/news/mj-divulgara-novo-relatorio-do-infopen-nesta-terca-feira/relatorio-depen-versao-web.pdf>>. Accessed on 10 July 2023.

such a scenario of extreme racial and social selectiveness of the criminal system, administrative sanctions that hit wealthy agribusiness producers in the pocket assume even greater importance.

I would ask them: who has more power, the Federal Police or Ibama? The guys: 'ah, it is the Federal Police, the Federal Police and the Federal Police.' Why do you think so? Do the Federal Police have the power to shoot and kill others? No, they don't. They are the judiciary police; they do criminal prosecution. Who has more power to intervene? To enter a farm, do you need a warrant? No. The Federal Police does. Does the Federal Police have the power to embargo a cultivated area? No, they don't. It can make a criminal embargo, yes, but it doesn't have any effect, because it doesn't prohibit. Ibama's power to intervene in productive activity is very big. This is something that the police don't have. Do the police have the power to destroy equipment? No, only with judicial order. Does Ibama have the power to destroy equipment? Yes. The guy is already demystifying. I used to tell the agents: are you aware of the power you have? Of the responsibility that you have when you adopt this power? Are you aware? Imagine the following: you and the federal police officer. You both arrived at the farm, caught the guy in the act of committing a crime. The federal police officer caught the guy in the act and took him away. You caught him, fined him, seized the tractor, the machinery, and embargoed the area. Who does the guy want to get rid of? Ibama. It is making his productive activity unviable. The procedure of the Federal Police, he gives it to his lawyer, his lawyer goes there and advocates for him. But he is not losing money. Now, one day without running his business, he loses money. (Interview with Ibama servant).

The publishing of the first Manual of Inspection in 1998, with its provisions about firearm handling, represented the consolidation of an organizational view that saw Ibama's inspection branch as an environmental-administrative "police" force oriented to stopping environmental crime and causing financial loss to environmental offenders. Taking this mission seriously inevitably required weapons. Without protection, rangers could do little to cease illegal deforestation on the spot and would be left defenseless against potential reactions from loggers, often foremen of powerful economic actors who have the political connections and financial means to evade all sorts of criminal sanctions, and thus are more likely to perceive the destruction of machinery as a much harsher punishment.

The prevalence of this more "radical" understanding of the institution's role, if we could call it as such, was undoubtedly favored by the enactment of the Environmental Crimes Act in 1998. As we saw, this statute hardened law enforcement instruments and was a watershed in the history of Brazil's environmental policy, to the point that one servant considered it a device that unleashed a kind of power that did not exist before in Ibama, a latent potential that had not yet been realized. Nonetheless, other events have also contributed to the organization taking this path. Had not a nonconformist agent in the mid-1990s challenged the hitherto prevailing interpretation that authorization to use weapons could not be directly implied from Ibama's foundational statute, perhaps the organization would have taken a completely different course than it did. Maybe it would be today, along with Funai, calling for additional regulations to be able to allow the use of weapons by its agents, who in such absence would have been

rendered equally vulnerable during the Bolsonaro government. As a matter of fact, Bolsonaro attempted, several times, still as a congressman in 2013 and even more intensely as president from 2019 to 2022, to revoke the permission granted by Decree No. 5,123/2004 to Ibama's agents to carry weapons.⁵⁸³

Be that as it may, what is of our interest in this reconstruction of how an agent got away with guns and succeeded in advancing a bolder interpretation of the implied effects of police power is, on the one hand, the processes of specialization and cultural differentiation already noticeable inside the organization. Rules, routines, techniques, tools, and language composing the circumambient world of servants allocated to inspection became less and less relatable to those making up the everydayness of servants assigned to licensing or environmental education, for instance. On the other hand, this chain of episodes can be read as setting the stage for the genesis of the doctrine of deterrence in the 2000s, which postulated the prioritization of inspection activities on targets of higher visibility. As we will see shortly, the application of the doctrine of deterrence resulted – even if limitedly – in the redirection of a part of the coercive apparatus of the state against the owning class' wealth, an inversion in distribution patterns that has few precedents in Brazilian history. With the entry of new, different-minded servants during the Lula administration, organizational transformations originally triggered to deal with turtle egg thieves ended up being strategically re-channeled against the largest farmers, ranchers, and businessmen in the country.

In the next section, we examine the rules governing admission of civil servants during Ibama's initial years of existence, as well as the agents' perspectives on the turbulent staff transfusion from SEMA, SUDEPE, SUDHEVEA and IBDF to the new agency. Understanding how recruitment of personnel happened before 2002, when Ibama's first public exam took place, will put us in a better condition to assess the impact that public examinations had on Ibama's organizational structure and culture.

7.4 Background: praxis knowledge and admission through appointment

Political appointments or approval in public examinations are the only two ways to be admitted into the Brazilian bureaucracy. This duality of work regimes lies at the heart of the Brazilian administrative structure and culture in the New Republic and is key to understanding

⁵⁸³ In 2013, Bolsonaro proposed in the House of Representatives Draft Bill No. 5720/13, which aims to prohibit civil servants assigned to hunting inspection from carrying firearms.

the dynamics between Ibama's bureaucracy and elected politicians unfolding during the administrations of the Workers Party, Temer, and Bolsonaro.

Previously to the Constitution of 1988 – except for a short period during Vargas' administrations in which merit-oriented reforms in recruitment procedures were implemented in specific agencies, – political appointment was the predominant way to select public servants in Brazil. The Constitution of 1967, in its original text, established formal exams as mandatory for admission to the federal public service. Yet, this provision started to be relaxed two years later, and a set of amendments multiplying exceptions to the general rule were approved.⁵⁸⁴ Therefore, civil service cadres inherited from the military regime by the new constitutional order – Ibama's herein included – were almost entirely composed of political appointees, not of candidates approved in civil services exams. In 1988, formal exams became mandatory for the admission of public servants at all federative levels. An exception was made only for the fulfillment of direction, leadership and advisory positions (and, even then, maximum percentages must be observed). Servants who were part of public administration in 1988, regardless if recruited through political appointment or formal exams, were granted job stability under the new constitution – meaning their dismissal could only take place in reason of serious misconduct investigated in disciplinary proceedings.

Direction, leadership and advisory positions, the only constitutional exception to the general rule of recruitment through public exams, were later systematized by the reform carried out by Bresser-Pereira's team in 1997. They were grouped into a single acronym, DAS [*Direção e Assessoramento Superiores*]. The reform instituted two ways to fill a DAS position. The first is with an individual that already entered civil service through formal exam and holds a regular position [*cargo efetivo*] within public administration. In this case, the commissioned servant is entitled to cumulate the salary she received for the regular position plus a bonus.⁵⁸⁵ The other way to fill a DAS position is through free political appointment, which is not subjected to minimum qualification criteria. In other words, DAS functions should preferably be fulfilled by in-house servants initially recruited through exams. Yet, this is not mandatory, and the vacancies can also be occupied by externals. In both situations, DAS positions do not lose their commissioned nature. That is, occupants of DAS positions can be, at any time, freely dismissed by the authorities who appointed them. Holders of *cargos efetivos* lose the bonus and return to their original posts, freely appointed individuals are ousted from public administration.

⁵⁸⁴ DE REZENDE, Renato. Concurso público: avanços e retrocessos. In: DANTAS, Bruno Dantas (org.). *Constituição de 1988: o Brasil 20 anos depois*. 1st. ed., v. 2. Brasília: Senado Federal, 2008, pp. 268-328.

⁵⁸⁵ BRAZIL. Law Nº 9.527/1997, article 62.

Understanding the intricacies of DAS functions is important because most activities involved in monitoring, investigating and judging infractions related to illegal deforestation are either performed or coordinated by servants who work under this regime. In fact, the absence of legal minimum criteria to fill Ibama's numerous DAS positions, as we will see in subchapter 10.4 proved to be a critical factor that facilitated the imposition of dismantling measures by Bolsonaro's appointees, one of the main gaps through which they obtained control over environmental bureaucracies and paralyzed policy implementation.

Bresser-Pereira's reform was openly influenced by British new public management ideals. Reformers considered the extensive job stability granted by the 1988 Constitution as "not only greatly increasing the costs of the administrative machine, but also leading many employees to not value their position, as the distinction between efficiency and inefficiency lost relevance[.]" They saw the multiplication of DAS positions as the only incentive available "to award and motivate" civil servants, as the regime established by the new constitution would provide neither a "system of career promotions based on merit correspondingly accompanied by higher remuneration" nor ways of defining clear productivity criteria.⁵⁸⁶ Reformers criticized the difficulty of establishing performance bonuses and the "violent reduction" of career breadth (salary variation between entry-level and top-of-career positions), which in most cases did not exceed 20%. In such a scenario, they contended, "public managers were deprived of instruments to motivate their employees, except for bonuses for occupying commissioned positions (DAS)."

The purpose of DAS, thus, was "to give some rationality to the remuneration system and establish an incentive system for the most competent servants." Reformers wanted nominations to follow the logic of "a true market, where ministers and public leaders who are endowed with DAS compete with each other for the best personnel of the federal service," resulting in that "the most competent are rewarded." Vouching that the quality of competitors would be secured by the maintenance of mandatory exams for all other non-DAS positions, they pledged that "just a minority of [DAS] functions [would] be occupied by commissioned servants." In their words, "the assignment to DAS positions of meritless persons, usually coming from outside public office," would be "an exception, not the rule."⁵⁸⁷

⁵⁸⁶ BRAZIL. Ministério da Administração Federal e Reforma do Estado. Plano Diretor da Reforma do Aparelho do Estado. Brasília, 1995, p. 13-14, 16, 18, 27-28.

⁵⁸⁷ BRAZIL. Ministério da Administração Federal e Reforma do Estado. Plano Diretor da Reforma do Aparelho do Estado. Brasília, 1995, p. 38-40. According to data disclosed by the Ministry of the Economy, in 2020 93% of all DAS functions were held by *concurados* and only 7% by outsiders. RIBEIRO, Mariana. Mais de 90% dos cargos comissionados no governo federal são ocupados por concursados (*Valor Econômico* 6 August 2020).

In brief lines, this was the broad legal framework that regulated (and, to a large extent, still regulates) admission of civil servants in Brazilian public administration in Ibama's first decade of existence. As we saw, it inherited the staff of the four organs merged to form the new environmental agency. The transition was guided by a set of provisions enacted 10 months after Ibama's creation,⁵⁸⁸ which created 700 high-level posts (or "analyst positions," whose minimal requirement is a university degree) and 500 middle-level posts (or "technician positions," whose minimal requirement is a technical or high-school certificate) to compose the permanent cadre of the agency. According to the statute, these positions should be filled primarily with former servants of SEMA, SUDEPE, SUDHEVEA and IBDF and, only in exceptional emergency cases (such as to control forest fires in conservation units or unforeseen pollution sources), with temporary hires, which could not exceed a non-extendable term of 180 days.

Ibama civil servants remember this initial moment of staff transfusion in a way that is quite different from the sanitized version registered in legislation and reform reports. As all of them made sure to remind me, the personnel inherited from SEMA, SUDEPE, SUDHEVEA and IBDF had been hired mostly, if not completely, through political appointment. The entry process into public service at that time was, as one agent put it, "very fragile." Some of Ibama's first environmental technicians had been originally hired as security guards at IBDF and changed functions after the merger. Others had been hired as administrative technicians to perform bureau functions but were abruptly assigned, without adequate training, to integrate inspection teams in the Amazon. In the account of an interviewee who joined the agency in 2009, a few older colleagues had difficulty with reading and writing, and literacy classes had to be organized by the first servants who entered through public exams in 2002.

[Ibama was still] a body that needed to modernize. Corruption was a terrible thing. Everything was totally analogic, with low technological level. There was a colleague here who gave literacy classes to old servants when he arrived. There was a kind of Mobral [alphabetization program] at Ibama. Here, in the interior of the Amazon, the way people entered public service was not through public exams. I worked with a person who was hired as a security guard at IBDF and then, when Ibama was created, became an environmental technician. He had been hired as a security guard without public exam; someone appointed him because they needed a security guard. Another colleague liked to watch the airplanes at the airport. He used to go to the fence to watch the planes landing. Then, one day, someone on the other side of the fence called him and said 'come here, do you want to work here?' He said: 'I want to; I don't have a job.' He joined Infraero [Brazil's public company for airport infrastructure] that way. There were not enough personnel and the entry process was very fragile. So, until today there are a few colleagues who have difficulty with reading and writing. The agency has modernized in some aspects, but it always carries the entire staff, mainly in the inspection department. Many people retired, especially in inspection. Today, analysts are the majority in inspection, but they were not until 2017, 2018.

Available at: <<https://valor.globo.com/brasil/noticia/2020/08/06/mais-de-90percent-dos-cargos-no-governo-federal-sao-ocupados-por-concursados.ghtml>>. Accessed on 10 October 2023.

⁵⁸⁸ BRAZIL. Law No. 7,957/1989.

Environmental and administrative technicians were the majority. They traveled a lot and were the bulk of the agency's manual labor. (Interview with an Ibama servant).

The [group that was in IBDF] were really administrative technicians that were, are inspecting, some of them still today. So the guy is an administrative technician, worked with photocopying, I don't know, and now he has a gun in his holster and is going to inspect in the Amazon. There really is a big difference. (Interview with an Ibama servant).

Still other civil servants worked in federal agencies not related to environmental policy and were recommended by acquaintances to positions in Ibama. This was the case of one respondent, who left a public job in strategic planning for a post in Ibama on a “friend’s invitation” in 1992, motivated by a desire to break out of the inertia that pervaded his previous professional environment and the “prospective of developing interesting work.” Some of them had initially entered public administration through exams, but the majority had been politically appointed and granted job stability with the new constitution. These agents, of course, presented very different qualification levels, and prior knowledge that many brought with them had important generative effects in the formation of the new agency.

Before joining the agency, I worked at [other state agency]. I was an information analyst. Then I met a friend who worked at Ibama as a chemical engineer. She invited me to work at Ibama. It was Collor’s government, nobody was doing anything, everybody was stuck, there was no prospect of developing any interesting work. Then she invited me to work at Ibama and I accepted. That was when my whole career changed. I didn't have an environmental background. I had a background in the area of government intelligence, so my training was on strategic planning in the scope of scenario analysis to subsidize governmental action. I am saying this because it helped me a lot in the construction of this new Ibama that came from the merger of four organs. (Interview with Ibama servant).

The situation of staff shortage was no better in other agencies linked to the Ministry of the Environment. The ministry itself operated until 2002 with a very tiny staff, composed either of employees borrowed from other agencies or outsourced employees with temporary contracts intermediated by international organizations like the United Nations Development Programme (UNDP). Chronic understaffing reflected the low political priority in the national budget that hiring and qualifying labor for environmental agencies had at the time. In the words of a former member of the ministerial team:

I remember that the Ministry of Environment, when Marina took over on January 1st 2003, had 13 career civil servants. We used to joke that who had the key to the Ministry of the Environment was the UNDP, because the rest were all hired by international projects. So, there were no staff. Ibama did, but it was also deficient. A lot of people were retiring. (Interview with former high-level employee of the Ministry of the Environment).

Older inspectors are often described by younger Ibama staff members as lacking formal training, but endowed with valuable abilities acquired through praxis, such as

identifying types of wood based on appearance, smell and texture⁵⁸⁹ and discovering signs of illegal boating activities from traces left on riverbanks. They were, as one agent who entered the agency in 1992 phrased it, “the kings of the woods.” This prevalence of analogical skills was consistent with the low level of technology with which Ibama operated until then.

When Ibama was created, they put together these four agencies and their personnel came along. An old staff, mostly without training. Academic contribution at that time was very little, at least in the inspection branch. They were ‘the kings of the woods,’ but we lacked that part of academia that helps to modernize processes, bring more efficiency. (Interview with Ibama servant).

In 2002, Fernando Henrique Cardoso’s last year in office, a public call for hiring Ibama servants was authorized for the first time in the agency’s history. 610 positions for environmental analysts were opened, and examinations were held in June 2002. As approved candidates were gradually called up to take office in the months following the announcement of the results, most of them properly began to work only in 2003. The arrival of the first servants approved through exams is widely regarded as a watershed event in the organization’s history. Both “old-school” and younger agents celebrate the boom of creativity that emerged from that “generational clash,” which proved to be an essential precondition to the results later achieved by PPCDAm. We will come back to the events surrounding this first exam in chapter 8.4, when comparing the public announcements and exam booklets of the four exams (2002, 2005, 2009, and 2013) that provided cadres for Ibama during the Workers Party administrations.

To sum up, despite the precariousness that characterized Ibama’s performance in deforestation prevention and control from 1989 to 2002, during this period important foundations for the later effectiveness of the agency in executing PPCDAm were laid. Ibama took the first steps in defining its internal and external organizational boundaries. Its first public service exam to hire new environmental agents was authorized. Senior civil servants stabilized the meaning of “environmental police power” as a guiding concept for inspection activities, and the agency gradually consolidated itself as an “environmental-administrative” police oriented at imposing economic sanctions on wealthy offenders.

⁵⁸⁹ RAJÃO; VURDUBAKIS, *op. cit.* p. 10.

CHAPTER 8. BUILDING CAPACITY AND AUTONOMY (2003-2016)

From its creation in 1989 until the beginning of the Lula government in 2003 and PPCDAm's formulation in 2004, Ibama's capacity to inspect illegal deforestation had remained very limited. Doctrinal elaborations around the notion of police power (and practical implications derived therefrom, most notably the acquisition of weapons), along with authorization of the first public exam to hire new servants, laid two important bricks in the structure of what was to become a high-performance environmental agency in terms of deforestation prevention and control. Yet, these measures by themselves were not sufficient to cause any meaningful impact. Groundbreaking change, in the perspective of the servants, came as the outcome of a policy implemented through a political decision following "a true change of government."

It was then, in 2004, that the government decided, Lula took over in 2003 and decided, the government decided to stop deforestation. It was a political decision. PPCDAm was created. Man, what a difference that made. I'll tell you the difference it made. [...] We were working to combat deforestation and didn't know what for. In what context, what objectives did I want to achieve by stopping deforestation? What was the public policy to be put into practice? Did I want to reduce emissions? How much? How much deforestation would I have to prevent to comply with the emission reduction policies of the Ministry of the Environment? [...] In the area of combating deforestation, we were born the day PPCDAm was born. It said what we should do. And on the day the National Plan for Climate Change [PNMC] was born, which said how much deforestation had to be reduced to reach the climate targets stipulated in the international agreements. Then we were born. Based on these policies, what they proposed, the result they expected, and the targets they stipulated, we started to direct our workforce (Interview with an Ibama servant).

The word "decision," four times reiterated in the quotation above, could not make clearer how the 80% reduction of deforestation in the Amazon experienced from 2004 to 2014 was not a spontaneous natural phenomenon nor a historical given, but resulted from a political choice taken by the Lula government in 2003. Crucially, in the analysis of another respondent, the agribusiness sector, which had fought "on the other side" of the presidential election won by Lula, at that moment exerted little or no influence on governmental decisions concerning environmental enforcement. Furthermore, since Lula's cabinet preferred to rely on "fresh blood" to structure new offices and initiatives, the 2002 entrants quickly climbed up to DAS positions within Ibama. Having entered the agency through meritocratic recruitment and then being politically appointed to leadership functions shielded from ruralist pressure, this group of servants finally started to put the environmental legal framework previously built in the first 15 years of the New Republic "to work at full speed."

All that [Constitution, Forest Code, Environmental Crimes Act] was there to be complied with, but nobody really put the machine to work with courage, as it should

be done. [...] Then the Lula government came in. A good part of the public servants that the government counted on to set up the office structure were newcomers. They didn't have much experience, but they had academic knowledge and a more up-to-date knowledge of the environmental issue, that we should conserve for use, not [simply] to protect. [...] This started to make internal transformations. At the beginning of the Lula government, there wasn't a massive presence of ruralists, gold miners, wildlife traffickers, all these sectors that are around [today], even because they were on the other side of the campaign. They had no influence. On the contrary, the government finally came to put the Brazilian legislation to work, the Constitution of 1988 to be enforced, the Environmental Crimes Act, the administrative aspects of it, for us to apply, at full speed. And a process of experimentation began in 2003, 2004, 2005.

This “process of experimentation,” as extensively described in chapter 4 above, included the creation of PPCDAm, whose executive coordination was jointly assigned to the Civil House of the Presidency and Ibama. As we saw, PPCDAm, of course, was not the only relevant initiative implemented at the time but rather a fraction, a node, in a dense framework of socioenvironmental governance that began to be built under Lula's first presidential term and Marina Silva's mandate as Minister of the Environment, which conceived PPCDAm as the “operational arm” of a three-front strategy together with the Sustainable Amazon Plan (PAS) and the Sustainable BR-163 Plan.

That said, it is interesting to notice how the advent of PPCDAm was incorporated into Ibama's collective memory as a “second foundational” moment, a watershed event, or, to reemploy the words of the interviewee quoted above, a “rebirth.” It was PPCDAm, not PAS nor the BR-163 Plan, the document mentioned by Ibama servants as a reference to justify and coordinate the agency's activity in official documents that announced the launch of high-rank inspection operations. PPCDAm gave a sense of orientation, a horizon of motivation to Ibama agents. *In the area of deforestation inspection, Ibama was born the day PPCDAm was born.* By articulating a representation of Ibama's identity and disclosing what the organization's purpose ought to be about, the policy succeeded in triggering profound transformations in the agency's organizational structure and culture.

Yet, before looking into how PPCDAm sparkled transformations in Ibama's authority, nodality, treasure, and organization tools (which are the subject of the remaining subsections), let us take a moment to dissect the profile of this “fresh blood” upon which the Lula government relied for restructuring Ibama's inspection branch around the task of combating illegal deforestation in the Amazon. Who were these candidates approved in the 2002 exam that rapidly reached leadership positions and initiated a small revolution in environmental law enforcement in Brazil? Although further biographical details cannot enter our analysis for the sake of confidentiality, more generic observations on their background and motivations when

joining the agency can help us to understand the semantic reservoirs and repertoires of action that were available to these servants and from which they, consciously or unconsciously, creatively borrowed strategies and schemes of thought to re-signify Ibama's institutional purpose and means of action anew under PPCDAm.

Changes in an organization as complex as Ibama, the largest environmental agency of an incredibly sociobiodiverse country, cannot be explained by the sheer will, however selfless, nor by the deeds, however heroic, of a handful of civil servants. This excursus on the personal background and motivations of specific agents should not be read as a eulogy to individual genius or exceptionality at the expense of neglecting the political and institutional factors implicated in the multi-faceted processes that contributed to the 80% reduction of deforestation in the Amazon from 2004 to 2014. What interests us is the intertwinement between these factors. Most of the servants appointed by Lula's cabinet to DAS positions in the first years of PPCDAm's implementation were middle-class individuals with higher education and no direct family ties to large landowners, who once at the job were given autonomy to enforce the law and deliver the politically established goal of ending illegal deforestation.

The iterations that resulted in Ibama's renewed inspection strategy emerged from a collective effort made by many actors, in and outside Ibama, in an incremental process of trial and error with progressive scalability. Part of this story – especially in what concerns employees of the Ministry of the Environment and other key institutions involved in PPCDAm's implementation – was told in chapter 4. Implementation requires a plethora of actors; some of them gain more visibility, their names being stamped on the cover of policy documents and their voices heard in television interviews, while others remain invisible, the excavation effort of bringing (even if anonymously) their actions to light being one of the biggest challenges of the research.

That being said, the respondents and informants interviewed for this research were in unison in appointing three individuals as the main ones responsible for the intellectual conception and practical execution of Ibama's novel inspection doctrine under PPCDAm. The reader was already introduced to the first of them in chapter 7.3 when we discussed the reinvigoration of the meaning of police power: The senior agent who left a public position in strategic planning to enter Ibama in 1992, motivated by a desire to break out of the inertia that pervaded his previous professional environment and the "prospective of developing interesting work." Upon joining Ibama, outraged with the widespread impunity for environmental offenders, he contested the interpretation that the agency was not authorized to use weapons by organizing a shooting course with his subordinates. This individual is widely recognized today

as one of the more important masterminds of Ibama's new inspection approach. Since he was one of the forerunners, started to work at Ibama ten years before the 2002 entrants, held several leadership positions in inspection, and is now retired, let us call him hereinafter "Patron."

The other two entered Ibama through the 2002 exam and were initially trained by Patron. Before passing Ibama's examinations, one worked as a teacher. Son of smallholder farmers and perceived as a good student at school, he saw academic life as a possibility of social upward mobility, the interest in teaching having been awakened by an enlightened teacher who left a mark on his formation by taking the students to field excursions. Determined to achieve better living standards than those his parents were able to give him, he graduated in math and biology and completed a master's degree in public universities, but soon got disappointed with the terrible working conditions to which school teachers are exposed in Brazil (he worked then for little more than the minimum wage), and started to study to pass exams for federal public positions. In 2002 he was approved to Ibama, whose work he already admired due to the media coverage of the 1992 UNCED and the impact that the "environmental issue" gained in national imaginary since then. He occupied different DAS positions within the agency, most of them related to inspection. After entering public service, he continued cultivating links with academia: his awarded Ph.D. dissertation on integrated inspection is widely regarded as a reference in the field of environmental policy, and the output of his post-doc research period is eagerly awaited for all those who have an academic interest on the topic of illegal deforestation. Because of his fondness for academic knowledge production (which he readily recognizes as very different – not necessarily superior nor inferior, just *different* – from the type of praxis knowledge acquired in the daily routine of a public servant), I will call him "Scholar."

The last character composing the triad of servants involved in the early development of Ibama's new inspection approach, also a candidate approved in the 2002 exams, had an academic background in law. Born in an urban middle-class family with "strong connections with nature" (his mother was a landscape designer), he militated in the student movement while in high school in the aftermath of redemocratization (to the point of taking part in national student councils), and in the early 1990s passed exams to study law in a public university. Law was his choice because he thought this formation would give him "knowledge about the power structure" and a "perspective of transformation of the world itself." Secondly, a law degree was seen as a secure path to a profession, a concern that, as a young middle-class person, he could not afford to ignore. At the university, he continued to participate actively in the student movement, a space that allowed him to get in touch with colleagues from outside law school, especially from the biology department.

There was practically no environmental law course in Brazilian universities at the time, as the topic was still very new, not only in Brazil but in “the whole world,” “even in developed countries.” At that moment, part of the Brazilian public opinion was still under the effect of the 1992 UNCED, whose intense media coverage was particularly successful in fascinating the urban middle-class youth to the environmental cause. After having participated at a biology conference on the invitation of friends from the student movement, he enrolled in optional courses at the biology department (one was a course on environmental impact), a possibility of multi-disciplinary formation offered by the university. This foray into other disciplines opened his mind to “a world completely different from law,” and he started to “get a taste” for the environmental area. After graduating, he got a job as a legal counsel at a municipal environmental secretariat, a position that he held for a short time, as soon after he was approved in the 2002 Ibama exam. Since then, he occupied several DAS positions in the agency, most of them related to inspection, and concluded a master’s degree in geography from a different public university.

During a certain period (no longer today), he was affiliated with left parties (smaller and more radical than the Workers Party), a personal decision about which he has always preferred to keep a low profile. Possibly this comes from the fear of being stigmatized, as few Ibama employees are affiliated with political parties and have a trajectory of political engagement. We will resume this topic in chapter 8.4, when analyzing the profile of some representatives of the 2005, 2009, and 2013 cohorts. What matters to us now is knowing that from his left-wing militancy in movements and parties the civil servant in question carried into his profession a “worldview of equality,” oriented toward a “fairer, more balanced world, without the preponderance of economic power over collective interests.” This perspective guided his actions as a public servant working in the environmental area, and subsidized his understanding that sustainable development necessarily requires preventing a minority from making “mediocre wealth” at the expense of the misery of others.

You can't carry environmental protection forward if you are held hostage by a degrader. [...] What happens in the Amazon, for example. One destroys an entire region to put cattle, without ever having been there. All that wealth [is] mediocre wealth, because it could generate much more wealth if it had sustainable development. Cattle degrades the land, the person who gets the money never shows up again, and people are left in misery. This is what it is all about. Sustainable development is a vision of the future where everyone can enjoy the environment and there are rules, so that no one destroys it for their own benefit to the detriment of the community. (Interview with an Ibama servant).

Because of his discretion about how the theoretical and practical knowledge acquired in student movements, legal practice, and left-wing parties influenced the elaboration of his

inspection approach, I will call the third idealizer of Ibama's new inspection doctrine at the beginning of PPCDAm by the codename "Strategist." Most likely, both Scholar and Strategist were trained by the first character, Patron, when they arrived in Ibama in 2003. Nevertheless, Scholar and Strategist soon climbed to DAS positions within the agency and, once holding coordination and management power, started to experiment with their own ideas of how to improve efficiency in environmental protection. Over time, their strategies became so far removed from the ones taught by Patron in his pioneering training courses that a later Ibama leadership could identify a "clear division" between "two very different inspection fleets." One more old-style, linked to Patron, and the other more modern, associated with Scholar. Patron's inspection school is based on ostensive, on-the-spot demonstrations of physical force, while the Scholar's method focuses on tracking and fining supply chain actors involved in the economic activity causing environmental damage. From the standpoint of this later leadership, the two approaches are complementary. Yet, a more technologized vision, closer to the Scholar's view, is the one that seems to have the upper hand and be in a position to dictate the next directions of environmental law enforcement.

They are very different. There are two takes, speaking now of inspection. There is an old group that wants to operate on the ground, kind of like infantry. And there is the modern group, which is the [Scholar's] group. The group that wants to hit the road has a lot to do with [Patron], who was for many years the director of inspection. [...] [Patron] is old school, infantry, hit-the-road, GEF [special inspection group] operations, TV appearances, he is different from the [Scholar]. They are two profiles. In inspection, you will see these two profiles. [Patron] knew he was heading for retirement because he is absolutely aware of the way these [new] operations are going, more about tracking the productive chain. He knows all this. But he has a different way of doing it: let's put men in the Amazon, burn the thing and fine it. I think, in fact, that there is a need for balance between the two positions. You can't do everything by [tracking] production chains. If you don't even have documentation and a bank, how are you going to [track] something completely illegal, a huge mining operation there in Munduruku, in the middle of an indigenous land? It is not tracking the production chain, nobody is financing anything, that is a crime, a crime indeed. There are times when [Patron] has to order the GEF men to go down there and burn everything. I think there has to be a balance. But it is very clear in inspection that there is this division: the more modern ones are with [Scholar], and the older ones with [Patron]. There is even a funny one with [Patron], he is a character. The GEF staff was making a fuss over traveling in a certain month, I don't know if there were many people on vacation, it was January or February. There is always less inspection at the beginning of the year, first of all because it rains, thus the number of illicit activities, in theory, drops. In the Bolsonaro government it is increasing, but historically the number of offenses fell in January. [Patron] wanted to carry out inspections. I remember him saying: I'm not going to call the GEF, I'm going to call the GEG, the geriatric special group. Then he got some old people who were arsonists, got in a helicopter and did some inspections. There are some very good stories. Some are unbelievable. He put a huge team, I think about ten rangers, pretending to be fishermen, something like that. They arrived without guns, pretending to be fishermen, all in a van, they were going fishing. When they got to the middle of the road, the helicopter came down with all the weapons, and they took the whole region by surprise, because they didn't realize that Ibama was coming. This is head on the ground. It looks like something out of a movie. [Scholar] will find all this very non-technical, very crazy. They are different. But they

worked together, so I think they end up complementing each other. Inside Ibama you can feel these two visions. The tendency, I think, is that the [Scholar's] tone will be consolidated in the future. (Interview with a former Ibama servant).

The reader may have noticed that this description of Ibama's two inspection styles leaves aside the contributions made by the Strategist. This erasure of his role in delineating the contours of Ibama's doctrine at the beginning of PPCDAm is mainly due to his discretion and preference for working backstage. His agency, however, was highlighted in the responses of other interviewees and finds further evidence in official documents related to the drafting process of Ibama's second manual of inspection and older newspaper articles on the first mega-operations against illegal deforestation carried out in the Amazon during PPCDAm. As we will see shortly, the strategy he devised was a middle-term between the Patron's infantry, hit-the-road approach and the Scholar's focus on supply chain traceability. These three characters, of course, were not the only ones involved in the implementation of Ibama's share of PPCDAm. Countless civil servants inherited from SEMA, SUDEPE, SUDHEVEA and IBDF, as well as numerous other candidates approved in the 2002 exam and several political appointees in the Ministry of the Environment, took part in this initial moment of strengthening inspection. Yet, if one were to point out the actors who were critical to such events, the contributions of Patron, Scholar, and Strategist unquestionably stand out.

Let us take some stock. Efforts by Ibama to combat illegal deforestation in the Amazon remained very limited in the pre-PPCDAm period. Personnel was mostly untrained; technology was precarious; infrastructure was insufficient; operations lacked planning and intelligence; the sanctions of fine, embargo, and seizure had negligible effects; destruction was not routinely applied. The elaboration of a revised notion of police power, along with the acquisition of weapons and the hiring of new environmental analysts through public examinations, were measures that marked the beginning of a gradual reconfiguration of Ibama's organizational structure and culture.

With the renewed sense of orientation provided by PPCDAm and the concomitant process of institutional experimentation triggered at the start of the Lula government, Ibama's civil servants, coordinated by Patron, Scholar and Strategist and working in cooperation with political appointees in the Ministry of the Environment, started to develop innovations in three complementary fronts in order to break away with the previous scenario of impunity hitherto prevailing in the Amazon and confer efficacy to environmental protection: prioritization of high visibility targets, immediate economic decapitalization of the offender, and shared liability across the supply chain. These iterations emerged out of an incremental process of trial and

error with progressive scalability. They were tested, evaluated, and over time gradually incorporated as guidelines of action into Ibama's set of rules, coming to compose the core of what today is called "doctrine of deterrence." In the next section, we will take a closer look at the semantic reservoirs and repertoires of action that were determinant to the genesis and consolidation of this doctrine within Ibama.

8.1 Authority: genesis and consolidation of the doctrine of deterrence

By 2004, as we saw in chapter 4, PPCDAm's first document of reference established one precept and two prioritization criteria to be adopted in the planning and execution of inspections against illegal deforestation in the Amazon. The precept was that environmental law enforcement should be not conceived in isolation but amidst a "culture of integrated environmental inspection." Integration here meant, on the one side, targeting by default other illicit acts usually associated with illegal deforestation (land grabbing, illegal possession of weapons, slave labor, tax evasion, money laundering, etc.), and, on the other side, involving civil society and the private sector in preventive initiatives of social sensitization and mobilization, as well as positive incentives to sustainable productive activities. Accordingly, the two prioritization criteria devised for inspections in that initial moment were public lands (undesignated, conservation units, and indigenous lands) and deforestation in private properties with more than 100 hectares.⁵⁹⁰

The circumscription of priority targets to public lands and private properties with more than 100 hectares was an important definition to start redirecting Ibama's coercive apparatus (which had begun to grow solid with the revised notion of police power, acquisition of weapons and massive hiring through public exams) from small, scattered clearings to large, heavily funded deforestation. Yet, a more refined and self-conscious formulation of the proper strategies required to induce behavior of those responsible for large, heavily funded deforestation was still to come. In that moment of institutional experimentation, when ideas on how to implement the PPCDAm were simmering and Ibama's newcomers were quickly promoted to DAS positions, one of the actors who was assigned a codename and whose profile was outlined above went to get inspiration from a reservoir of strategies that at first sight may seem to have little to do with anti-deforestation inspections.

In 2006 I went to an office in the interior of [...]. I started to build there what is called local planning, just for the office. It was me plus three other employees [to inspect]

⁵⁹⁰ BRAZIL. PPCDAm fase 1, *op. cit.* p. 23-24.

60 municipalities. In order not to sit and cry, I decided to do a theoretical study on war. Look how crazy. I read a book by a German guy, Clausewitz, do you know him? Clausewitz has a book called *On War*. It's a book about this thick. Well, it was not only this book, but I read this book at the time and I decided to organize it better by making, in quotes, a war. (Interview with an Ibama servant).

The reader may be acquainted with Carl von Clausewitz's classical treaty *On War*, most likely for the canonical aphorism "war is nothing but the continuation of politics with other means,"⁵⁹¹ later famously inverted by Foucault as "politics is the continuation of war by other means."⁵⁹² The reader then may also be posing the following burning question: What could a Brazilian environmental agent in the 21st century have possibly derived from the reflections of a 19th-century Prussian general and applied to anti-deforestation inspection operations?

A war in quotes. What the interviewee meant by this caveat was that war here should not be understood literally; first and foremost, it provided a powerful *metaphor* to apprehend deforestation and the efforts to combat it. Clausewitz constructed his war-politics schemata at the end of the Napoleonic Wars, assuming conflict as a two-way military fight between unified entities (usually imagined as states), which he analogically compared to a duel or litigation. Environmental law enforcement against illegal deforestation obviously bears no resemblance to a war in this sense. However, although we should not take the metaphoric use of warfare language in the context of deforestation prevention and control as an absolute referent, it should also not be disregarded as sheer rhetoric or an accidental analogy.

Positioning war as background metaphor for anti-deforestation inspections had at least one concrete implication to the command and control strategy devised by Ibama in the scope of PPCDAm. To fully understand this implication, it may be worthy to expand a bit on Clausewitz's concept of "center of gravity," which speaks to the core of his warfare theory. The author's well-known contention that "war is not merely an act of politics but a true political instrument, a continuation of political intercourse, carried on with other means" did not intend to be an abstract catchphrase, but to shed light on a very practical concern pertaining to the horizon of experience of generals and other actors involved in military conflicts: amidst so many circumstantial defeats and victories, advances and retreats, gains and losses that make up the reality of war, how to know whether a conclusive victory has been achieved?

⁵⁹¹ VON CLAUSEWITZ, Carl. *On War- Book I* (ed. by HOWARD, Michael Eliot; PARET, Peter). New Jersey: Princeton University Press, 1976, p. 87.

⁵⁹² FOUCAULT, Michel. *Society Must Be Defended: Lectures at the Collège de France 1976-76* (ed. by BERTANI, Mauro; FONTANA, Alessandro; transl. by MACEY, David). London: Picador, 2003, p. 15.

If “war is an act of force to compel our enemy to do our will,” he argued, victory is accomplished when the enemy’s fighting forces are “put in such a condition that they can no longer carry on the fight” and acquiesce to the political objective sought by the winning forces. It is in this “moment of translation” from a military outcome (e.g. army stampede on the battlefield) to a binding political outcome (e.g. signing instruments of surrender) that conclusive victory becomes recognizable.⁵⁹³ Such assumption provided the basis for what is considered Clausewitz’s “most important strategic concept,” the center of gravity, meaning the “focal point” to which the mass and energy of the fighting forces on either side converge. The author repeatedly asserted throughout the book that keeping one’s forces concentrated and concentrically attacking the enemy’s center of gravity was the “higher and simpler law of strategy.” “Act with the utmost concentration,” he wrote, “is in short the first principle” of warfare theory.⁵⁹⁴

Well, what was originally conceived as a system of principles to educate military officials in the arts of war – so that they could halt the expansion of “revolutionary quarrels” inspired by the French Revolution and prevent a new breakdown of the European monarchical order in case a second Napoleon emerged – was read by a young Ibama environmental agent in the early 2000s with a little leftist twist. If capital is the beating heart of the networks sustaining the conversion of forest into pasture or plantation, it should also point to the center of gravity of the forces fueling deforestation. This insight prompted the agency to include an implicit prioritization criterion in its efforts to curb forest destruction: its coercive apparatus, still under construction, should be redirected toward individuals, farms, or companies that had “higher visibility.” In the perception of the servants directly involved with the elaboration of Ibama’s inspection strategy, this meant concentrating institutional energies on the individuals with the most economic and political capital. Inspections should not generate voluminous piles of fines against “poor-as-church-mice henchmen,” chainsaw operators working in slave-like conditions, or egg turtle thieves. “Large local targets, mayors, important farmers, important companies” should rather be the primary target of inspection operations.

Our objective was not to cover all infractions that occurred in a region. We abandoned this objective because it was unfeasible. We decided to do some of the infractions very well done, complete. Preferably with a large local target, mayors, important farmers, important companies. It was the idea of deterrence: we don’t need to get everybody to induce general behavior. We can get one [person] and create general behavior, based on deterrence. Then our objective became feasible. We made large efforts in planning and data analysis, to choose good targets. When we got [a target],

⁵⁹³ SIMPSON, Emile. Clausewitz’s Theory of War and Victory in Contemporary Conflict. *Parameters* 47, n. 4, 2017, pp. 7-18, doi:10.55540/0031-1723.3100.

⁵⁹⁴ VON CLAUSEWITZ, Carl. *On War – Book VIII* (ed. by HOWARD, Michael Eliot; PARET, Peter). New Jersey: Princeton University Press, 1976, p. 617.

we called in the press to have local visibility. Social behavior started to change. Lots of people tried to regularize, deforestation data decreased, [...] society participation in Ibama's activities increased. So the institute of deterrence was achieved in that piece of Brazil there [...] despite resistance from several colleagues who wanted to go after all cases. What was their idea? 'If [a case] comes to Ibama, we have to do it.' No, we don't have to do it. We have limited capacity, so we will focus on the main ones. Because our strategic objective is no longer volume, but deterrence. Our objective became actually a psychological objective. (Interview with an Ibama servant).

The rationale behind this prioritization of high visibility targets was to increase the perception of risk by deforesters, what the interviewee called a “psychological objective.” Farmers would start to think twice before expanding into areas illegally deforested and grabbed, after hearing about the million-dollar loss of an influential neighbor whose herd was seized; banks would begin tightening their compliance protocols upon knowing of the skyrocketing fine imposed on a renowned financial institution. This change in inspection style would also mean a risk increase for the rangers, who before could go around issuing fines that would never be paid and embargoes that would never be respected without any threat to their lives.

It is no use putting a bunch of cars on the Amazon roads, fining all the deforestation that is occurring at the same time. You will never be able to solve it. Concentrate. Clausewitz's idea. You concentrate your energy; you win that main battle. You can even win the war with just one battle, because the other side gets demoralized; it can't fight you anymore. If we put 30 teams of three people, each car with three people, what are they going to do? They will fine the henchman [*laranja*], who will show up with the chainsaw hanging from the shoulder, the slave. 'I was the one who deforested.' The guy is instructed to say that: 'I did it.' Then they fine a henchman, who is poor as church mice, and move on to the next. They could fine without risking their life, without greater contradictions and antagonisms, if it were only the fine and the embargo. Because up ahead the henchman will put cattle there, five years later the guy has the land title. Now, with our strategy of deterrence, we go even in areas that were embargoed two years before. We take away the smart guy's cattle, 1 thousand heads of cattle, that's 1 million BRL. We take the cattle from that guy, put him on the cross with all the carnations for others to see, to discourage others from deforesting so that in two years there won't be any deforestation. You have to concentrate. You concentrate 30 agents, put in logistics – it is expensive, it is a very expensive operation, but it is the same you would spend with all those people spread out. And you defeat [deforestation] in that region. By dissuasion you induce social behavior in the macro area. (Interview with an Ibama servant).

Along with the prioritization of targets of higher visibility, Ibama also started concentrating resources on operations that resulted in the immediate decapitalization of the offender. This was mainly done through the real seizure of cattle herds and the destruction of equipment used in illegal mining or logging, measures that Ibama was already authorized to take but lacked detailed regulation. In 2008 a presidential decree (Decree No. 6,514/2008) defining protocols and criteria for seizure, destruction and embargo was enacted. Under the new rules, destroying the instruments used in the infraction became mandatory in three cases: (1) “when necessary to avoid their improper use;” (2) “when the circumstances make unfeasible

their transport and custody;” or (3) “when they may expose the environment to significant risks or compromise the safety of the population and the public agents involved in the inspection.” Seized goods could no longer be entrusted to the offender himself, but necessarily should be “kept under the custody of the entity responsible for the inspection, and only exceptionally entrusted to another trustee until the judgment of the administrative proceeding.” In practice, these devices empowered the rangers to incinerate any tractor, ballast engine, bulldozer, chainsaw, boat, and other equipment found on site. Transporting such heavy machinery from the middle of the forest all the way to an operational base was, in most cases, unfeasible due to the topography, vegetation, and rainfall regime on the terrain.

Provisions concerning embargo were, in comparison, the less strict ones: the measure should be restricted to the land parcel effectively used to perpetrate the environmental infraction, not being able to reach land parcels not correlated to the infraction. If the embargo is disrespected, the economic activity practiced in the area is suspended and its corresponding environmental licenses are canceled. Embargo of areas destined for family subsistence activities was expressly prohibited. As we discussed in chapter 4, employees of the Ministry of the Environment involved in the decrees’ drafting process suggested bolder embargo rules, but these were vetoed by other members of the governing coalition who took part in the meetings where the decree was agreed upon.

In parallel, another presidential decree enacted at the end of 2007 (Decree No. 6,321/2007) established clearer rules to identify priority municipalities; instituted mandatory “re-registration” of land titles in critical municipalities; and prohibited public financial institutions from giving credit to undertakings operating in embargoed areas. The package of decrees also established the legal basis for the shared responsibility of supply chain actors for environmental offenses. “Acquiring, intermediating, transporting, or commercializing any product or sub-product of animal or vegetal origin produced in an embargoed area” was transformed into an autonomous infraction, equally punishable by fine, embargo, seizure, destruction, and suspension. Ibama was authorized to require information about the suppliers of agroindustrial undertakings, and the omission of data or the provision of false information by the undertakings started to be considered an infraction.

All these legal innovations – introduced unilaterally by the Executive through presidential decrees with little or no involvement of the Legislative, still largely dominated by agribusiness representatives, as we discussed at length in chapter 5.3 above – were translated into guidelines of action and consolidated in the editorial form of an updated Internal Manual

of Inspection.⁵⁹⁵ The older version of the manual, dating from 1998, was substituted by a reinvigorated edition in 2009, which the servers mostly refer to by its abbreviation, RIF [*Regulamento Interno de Fiscalização*]. For the first time the word “doctrine” was enshrined in Ibama’s internal regulations. The ideas of concentrating institutional energy on targets of higher visibility, aiming at the immediate economic incapacitation of the offender, and extending liability across the supply chain gained a textual subtract and an official character. In the manual’s two-page foreword intended for the civil servants, we read the following:

Dear civil servant,

You are receiving the new Internal Regulation of Inspection [RIF] of Ibama. This regulation is the result of a great effort by the agency's employees and counts on the collaboration of lawyers from PFE/Ibama. [...] In preparing this regulation, we sought to converge past, present and future, reflecting unique experiences, organizing and orienting federal environmental agents in the struggles for environmental protection and, as a carrier of the future, paving the way for us to become an even stronger institution and be able to contribute to achieving the strategic objectives established by Brazilian society, especially the sustainable use of natural resources. The history of Ibama shows that the work done by inspection teams expresses heterogeneous experiences and knowledge. This fact, positive to a certain degree, translates into a great capacity for adaptation of the civil servants to the most varied social and environmental circumstances. Yet, it also produces aspects whose overcoming is desired. The most important undesirable aspect has been the insufficient standardization of inspection procedures, an insufficiency that often has negative repercussions on Ibama's capacity to sustain its procedures and strategic/operational planning. The search for the standardization of procedures is present in each device of the new RIF. The new regulation goes to the core of the problem of dispersion of energies, which generates little effectiveness of the actions aimed at environmental protection, by establishing deterrence as the central strategic objective of Ibama's inspection structure, understood as a condition of psychological nature capable of changing undesired behaviors and inducing new practices and conducts that are appropriate to the political will of the power center that establishes it. To achieve this strategic objective, the RIF guides the group of managers and civil servants working in inspection in their daily planning and execution process, and should be carried out with a concentration of efforts on large-scale and visible actions, with objectivity, technical quality, and zeal for discipline. It is noteworthy that the new RIF is part of the general plan to establish a doctrine, understood as a set of principles specific to Ibama's inspection and aimed at greater standardization and modernization of the activity. This new regulation, to become effective, will depend on other initiatives that have been implemented, such as the improvement of training courses for federal environmental agents, including preparation of operational coordinators and updated workshops, acquisition of equipment and uniforms, and adjustments in the planning and execution processes of the operations. But the guarantee that we are inaugurating a victorious process lies in the dedication of each Ibama agent in reading, reflecting and applying the rules. This fact will make our new RIF alive and influential.

Good reading, good work, and strength in the fight!

Problem of energy dispersion, deterrence as a key strategic objective, concentration of efforts on large-scale and visible actions, dissuasion as a condition of psychological nature, changing undesired behaviors and inducing new conducts that are appropriate to the political will of the center of power, inauguration of a victorious process. It is impossible not to detect

⁵⁹⁵ BRAZIL. Ibama. Administrative Act (“Portaria”) No. 11/ 2009.

the influence of Clausewitz's theory (or a creative Marxian interpretation thereof) in these words. The main concern expressed in the foreword, dispersion of energies, was linked to the heterogeneous backgrounds of Ibama's personnel, as the remnants of the four merged organs and the clash between old servants and newcomers were still very much on the edge. This diversity would have given the agency the advantage of adaptation, but in order to face the politically established challenge of halting the destruction of the Amazon, inspection procedures would have to gain technical quality and be better standardized.

Correspondingly, the second version of the manual of inspection crystallized deterrence as the "fundamental principle" of inspection. Servants assigned to work with inspection received a specific denomination: Federal Environmental Agents, abbreviated in Portuguese as AAF [*Agentes Ambientais Federais*]. To become an AAF, the servant had to successfully conclude inspection training courses and be summoned at the discretion of Ibama's coordination. She should also undergo ongoing qualification and periodic evaluations while being an AAF. The division of tasks in inspection teams and the attributions of different leadership positions were also established in detail. The AAFs' obligations included "to respect the hierarchical structure; to act ostensibly by wearing a uniform and driving an official vehicle; to be trained in the handling of firearms; and to fill out the inspection documents carefully, concisely and legibly, detailing the facts with objective information and specific legal framework, in order to avoid the annulment of the investigation." The correct fulfillment of such inspection documents was considered so fundamental to improving the quality of administrative procedures that the new manual provided roadmaps for the writing of technical opinions and guidelines for team building. The glossary of inspection documents was updated, and new modalities were created to facilitate the work of intelligence, one of the most interesting and less understood branches of inspection operations, which we will discuss more thoroughly in subchapter 8.3.

Rules concerning the issuance of professional gun permits to AAFs and the progressive use of force were also more detailed in the manual. Agents became authorized to conduct personal searches on offenders to collect weapons and deploy handcuffs. These measures, however, should be taken only when strictly necessary, for the shortest time possible, and under no circumstances with abusive vexation or embarrassment. By addressing in a "frank way" the thorny but "vital" issues of firearm possession and progressive use of force, as stated in the

memorandum that opened the manual's drafting procedure, it attended an old demand from inspectors, who had long claimed for clearer legal criteria to guide their actions in the field.⁵⁹⁶

Furthermore, the manual brought additional guidelines regarding uniforms and emblems, whose use aimed at conveying a "proper image of the AAF" and "helping to build an increasingly stronger and respected Ibama." Another concern was to establish more objective parameters to minimize the agents' subjectivity in defining fines. The document also made explicit that an AAF who is responding to a disciplinary procedure resulting from "serious disrespect of the manual's norms, to the operational execution, or the hierarchically superior authority" should be removed from operations. The creation of a special inspection group, abbreviated in Portuguese as GEF [*Grupo Especializado de Fiscalização*], was foreseen. It should be composed of AAFs with "proven technical quality and operational virtues," in situations that demand "above average efficiency and effectiveness," such as under "adverse weather and conjuncture."⁵⁹⁷

The last innovation introduced by the manual was the institutionalization of a national planning forum, in which AAFs from all over Brazil could jointly decide on strategies, targets, resource allocation, and other aspects composing inspection operations. This forum later became an annual meeting abbreviated as PNAPA [*Plano Nacional Anual de Proteção Ambiental*], cited by many respondents as one of the most important spaces of socialization and identity building shared by Ibama's inspection agents. These internalization and transmission techniques were so successful in consolidating the doctrine of deterrence as the gravitational point of Ibama's organizational culture that some civil servants refer to the manual in almost devotional terms. As one of them put it, the RIF is what an AAF needs "to have on the bedside table." In the words of another respondent: "It is our doctrine that trains us daily. Because the doctrine is not something that I will learn today and tomorrow I will never read it again. No, the doctrine has to be part of the agent, of the organizational culture."

RIF, AAF, GEF, PNAPA. Standardization often calls for abbreviation, as repetition benefits from techniques for condensing information. With the pardon of the readers less familiar with the Brazilian administrative jargon, who, at this point, may feel annoyed by the abundance of acronyms in this part of the dissertation, let me introduce the last ones that are of interest to this research. Alongside PNAPA, Ibama started to produce two other types of documents to support inspection activities: the so-called standard operational procedures, abbreviated as POPs [*Procedimentos Operacionais Padrão*] and the diagnosis of environmental

⁵⁹⁶ BRAZIL. Ibama. Minuta do Regimento Interno de Fiscalização. Archived in Ibama's files (2008), p. 2-5.

⁵⁹⁷ BRAZIL. Ibama. Minuta do Regimento Interno de Fiscalização. Archived in Ibama's files (2008), p. 2-5.

infractions, DDA [*Diagnóstico de Delitos Ambientais*]. As far as I'm aware, POPs and DDA were formalized between 2017 and 2020. Yet, for reasons of thematic pertinence, they will be anticipated here and then resumed in subchapter 9.1.

POPs are internal ordinances that establish scripts to guide AAFs in certain inspection tasks. Some of them are public, others are classified. Among those that are public, particularly relevant are POP 2952, which presents different methodologies for risk analysis in inspection operations (to help decide which assets should have priority for protection in case of conflict or how to proceed if Ibama vehicles are attacked by rioters, for instance) and POP 1549, which contains a checklist with the data that every operational plan must have (e.g. visual signs indicating confidentiality, description of the context, “theater of operations” – another concept of Clausewitzian origin – and targets, general and specific objectives, material resources, team members, schedule, budget, internal and external communication, legal norms, risk analysis, foreseen sanctions, etc.). The DDA, in turn, is an annual publication produced by Ibama's intelligence department. It gives an overview of the most common environmental infractions in each state in Brazil, containing a brief description of the offenses, their usual location, the main targeted species, and seasonality patterns. This regional x-ray provides the basis for the planning of next year's PNAPA.

All these planning and documentation techniques aimed, as the foreword to the new manual explicitly stated, to improve the quality of Ibama's inspection procedures, since their “insufficient standardization” had been identified as the “most important undesired aspect” standing in the way of effective results.⁵⁹⁸ The main reason for Ibama's obsession with standardization was the risk of judicial review against enforcement actions. Offenders commonly contested in court the motivation for Ibama to inspect their land, arguing the agents' choice of target was not systematic but casuistic, and insinuating they intended to solicit bribes.⁵⁹⁹ It was not uncommon that landowners were granted favourable judicial rulings, even with such a spurious legal argumentation. In the 2000s, around 52% of all appeals against Ibama's precautionary measure of seizure in cases related to illegal deforestation in the Amazon were reverted by the Judiciary. The judges' main arguments for restituting the seized products to landowners were grounded on the Criminal Procedure Code, not on the Environmental Crimes Act, therefore tacitly (and unlawfully) denying application to the latter.⁶⁰⁰ In such a

⁵⁹⁸ BRAZIL. Ibama. Minuta do Regimento Interno de Fiscalização. Archived in Ibama's files (2008), p. 2-5.

⁵⁹⁹ RAJÃO; VURDUBAKIS, *op. cit.* p. 8.

⁶⁰⁰ BARRETO *et al.*, *op. cit.* p. 25.

scenario, standardization and documentation techniques were conceived as mechanisms to reduce the agents' space of discretion and erect a shield of legality against judicial contestations.

With notable exceptions,⁶⁰¹ the Brazilian Judiciary was regarded as an institution that historically contributed more to the maintenance than to the transformation of the status quo. Ibama's servants were aware that the success of the new doctrine depended substantially on the agency's skilfulness in influencing the judges' view on the Environmental Crimes Act and obtaining their endorsement of the novel package of sanctions recently introduced into the Brazilian environmental legal framework within the scope of PPCDAm by dint of presidential decrees. Having this concern in mind, a set of operations was put into practice between 2008 and 2011, among which operations Pirate Cattle and Herd Bust stood out in relevance. Besides being carefully planned to test and build favorable judicial precedents regarding the lawfulness of immediate decapitalization measures, this sequence of actions also served to consolidate the doctrine of deterrence internally, demonstrating to those servants who were initially skeptical about its effectiveness that its underlying logic really worked.

Operation Pirate Cattle targeted farms irregularly located inside conservation units within the borders of Novo Progresso, Pará. Novo Progresso was listed as a priority municipality. Its first phase lasted six months, from June to November 2008. It targeted the farm Lourilândia, situated inside the Ecological Station of Terra do Meio. This area was chosen because there was already a disobeyed judicial order determining the removal of cattle heads from the unit. Jointly with the Brazilian Air Force, the State Military Police of Pará, the National Public Security Force, the Federal Police and the Federal Highway Police, and counting on an assembly of 115 men, 25 vehicles, one helicopter, and one tank truck filled with aircraft fuel, Ibama seized and auctioned off 3,300 heads of cattle. To be removed from the conservation unit, the herd had to be divided into four groups, each with around 800 cattle heads, and driven on foot for 200 km from Lourilândia to the municipality of São Félix do Xingu, where the auction organized by Ibama in partnership with Conab (a public company aimed at stocking agricultural products and guaranteeing food supply) took place. This journey lasted 18 days. Another 30,000 heads of cattle were removed from the Ecological Station of Terra do Meio by fourteen other farmers who were notified to do so by Ibama. This is how an interviewee who participated in the operation described its preparation and execution:

In Operation Pirate Cattle I, we took advantage of a favorable confluence of factors, because we are not dumb. There was a judicial order to remove cattle from a national park in Pará, a disobeyed order from a federal judge. In Brasília people told us they

⁶⁰¹ One cannot fail to mention the important role of Justice Herman Benjamin in the Superior Court of Justice (STJ). His academic work and craft as a judge were decisive to the development of environmental law in Brazil.

did not bet on it. This was the case we chose. Unavoidably, we always had controversies with the Judiciary, because the offenders go there trying to block us. In this case it was different, there was already a judicial order. That field was clean. So we went there and seized the cattle on this farm, already fine-tuning the tools of doctrine, regulation, and planning. [...] This operation was very dramatic. We spent six months there. [...] We took the cattle away from the guys. Practically all deforestation in the region collapsed. [...] What we had done so far was to fine and embargo, but what we did now was to take away the patrimony of those who were really profiting from environmental crime. [...] Then we learned. We already imagined what would happen, but it was good to collectivize that the doctrine worked. (Interview with an Ibama servant).

The second phase of Operation Pirate Cattle lasted approximately 10 months, from June 2009 to February 2010, and focused on the Jamanxim National Forest. There was no disobeyed judicial order addressing Jamanxim. The location was chosen because Ibama wanted to test the Judiciary. By setting up a situation that would certainly prompt a legal reaction by the offenders, it opened up the possibility to obtain a judicial decision favorable to the enforcement of Decree No. 6,514/2008. The agents seized 1,000 cattle heads from a well-known land grabber and local bully alias “Polish”, embargoed 50,000 hectares, and applied BRL 120 million in fines. The seized cattle were transported for 60 km, part by truck, part on foot, and donated to a governmental social program against hunger called Fome Zero. 40 agents from Ibama and the National Force and 18 vehicles were required to complete the operation, which cost around BRL 2 million. At least other 6,000 cattle heads were voluntarily removed from the conservation unit by farmers notified by Ibama.⁶⁰² The strategy to obtain a favorable judicial decision worked:

Then we went for Operation Pirate Cattle II in Jamanxim. That was different, it also was in a protected area but there was no judicial order. But we wanted to test the Judiciary. I wanted to create a precedent around an action of Ibama. I even had a conversation with the president of the Superior Court of Justice (STJ). [...] Just so that you have an idea, 23% of all deforestation in the Amazon in 2009 happened in Jamanxim. Look at the size of the problem. [...] Despite all the drama that this operation turned into, incredible things happened. A judge gave a decision against another judge in the same court. STJ had to break the tie. I had to explain why it was important to adhere to Ibama’s thesis. In the end, we took the cattle away from the guys. And the most interesting was that to achieve this we developed expertise, tested doctrine, adjusted regulations, created the modus operandi, trained field coordinators. We took the cattle away from the guys and zeroed deforestation in the region that year. (Interview with an Ibama servant).

Following Pirate Cattle, in March 2011 Ibama’s agents went for Operation Herd Bust. After Terra do Meio and Flona Jamanxim, the targets were five different municipalities in the states of Pará, Amazonas and Mato Grosso. From one operation to the other, the “theater of operations” in which Ibama’s doctrine of deterrence was tested gained progressive scale and

⁶⁰² INSTITUTO SOCIOAMBIENTAL. Ibama fecha operação Boi Pirata II (ISA 01 February 2010). Available at: <<https://uc.socioambiental.org/noticia/78396>>. Accessed on 10 July 2023.

evolved in a crescendo of complexity. Herd Bust resulted in the seizure of 5,400 cattle heads, embargo of 19,000 hectares, and application of BRL 83 million in fines. The seized cattle were also donated to Fome Zero.⁶⁰³ Ibama organized meetings with local farmers in each of the targeted municipalities, to persuade them to remove the remaining irregular cattle voluntarily. The meetings were not always peaceful. In one of them, a group of ranchers tied iron chains to the propellers of Ibama's helicopter to prevent the agents from returning to their base.

The climax of the process of combating deforestation, in my view, was Operation Herd Bust. [...] We seized five herds at the same time: three in Pará, one in Mato Grosso, and one in Amazonas. At the same time. I went in all these regions in person, as soon as the cattle was seized. I met with councilmen, farmers, rural unions. I said: 'to those who lost the cattle, there is no going back. We can take someone else's cattle too. In 15 days we will know through satellite if deforestation zeroed here. If deforestation zeroed, we won't take any more cattle from anyone here, because we have more to do.' This framing was allowed by the doctrine of deterrence. We don't need to stay there. Of course, there will be an infinite number of environmental infractions there. But the important indicator was reduction of deforestation. Given the limited resources we had in terms of logistics and personnel, it was the strategy of deterrence. We arrived there [saying]: 'this one lost the cattle. There is no point in rioting, setting tires on fire, throwing stones at Ibama's truck. There is no point in doing this. We will multiply our teams here until we take the cattle away from him. What we can do is the following: bring deforestation to zero – we will see it via satellite in 15 days – and we will not take any more cattle from anyone else. We will take the cattle from this guy, his is not going back, and we will send the team somewhere else, where probably there will be a greater need for us.' Operation Herd Bust brought another record and influenced until 2012 the deforestation drops in the regions where we operated. (Interview with an Ibama servant).

Although Operations Pirate Cattle and Herd Bust were not the only ones carried out in this period,⁶⁰⁴ they are regarded by the servants as important constitutive nodes in the chain of actions that tested and consolidated Ibama's new doctrine of deterrence. Their results have received different evaluations. As we saw in the literature review (chapter 2.4) and in the discussion on the limitations faced by PPCDam's command and control instruments vis-à-vis a positive agenda (chapter 5.1), there seems to be little contestation that the effect of inspection operations on local deforestation was drastic and immediate. Authors estimate that increased Ibama's presence helped avoid approximately 59,500 km² of deforestation from 2007 through 2011, without adversely affecting municipality-level agricultural production.⁶⁰⁵ Counterfactual simulations indicate that, in the absence of Ibama's actions, deforestation would have been 75% higher in the period. This correlation is also observable at the municipality level. While from

⁶⁰³ AGÊNCIA BRASIL. Operação do Ibama já apreendeu 5 mil cabeças de gado na Amazônia (São Paulo 27 April 2011). Available at: <<https://oglobo.globo.com/brasil/operacao-do-ibama-ja-apreendeu-5-mil-cabecas-de-gado-na-amazonia-2790553>>. Accessed on 18 July 2020.

⁶⁰⁴ Respondents also mentioned Operations Canada (which targeted deforestation of native species in the Atlantic Forest and their illegal substitution for Canadian pine) and Operation New Paths (which combated biopiracy) as important moments of preparation for the full blossom of the doctrine of deterrence.

⁶⁰⁵ ASSUNÇÃO, Juliano *et al.* DETERring Deforestation in the Brazilian Amazon: Environmental Monitoring and Law Enforcement. *American Economic Journal: Applied Economics*, 15(2), 2023, pp. 125-156.

2009 to 2010 deforestation decreased by 24.8% in the Amazon as a whole, in the municipality of Novo Progresso, for instance, the drop was significantly more pronounced: -83.6%.⁶⁰⁶

As Ibama's servants themselves wearily repeat, command and control is not a silver bullet solution to the problem of deforestation. Repressive actions alone cannot sustain low rates of deforestation in the long term. Without positive incentives to strengthen agroecology and sociobiodiverse productive chains, the task of containing forest-destroying forces will become increasingly arduous and limited. Yet, the fact that enforcement activities, like any other policy, have limitations, in no way diminishes their relevance. The process of capacity building undergone by Ibama under PPCDAm, in which the elaboration of the doctrine of deterrence was a central piece, was not a historical given nor a spontaneous development of the state of things, but the result of concerted human action, whose intricacies deserve reflection and analysis. The conditions for the resounding success of environmental law enforcement during PPCDAm should not be taken for granted. What until 2002 was still a relatively weak, fragmented, sectarian, and inefficient agency transformed itself, in the space of a decade, into an institution of technical excellence in inspection operations, recognizably responsible for "containing the bulk"⁶⁰⁷ of forest destruction in the context of one of the most significant reductions in tropical forest deforestation in recent history.

The hardening of command and control instruments marked a dialectical inflection in the attitude of agribusiness actors toward environmental legislation. Besides contesting fines and seizures in judicial lawsuits, the farmers also brought the complaints to their political representatives in the Executive and Legislative. It was in the context of Operation Pirate Cattle that Blairo Maggi began to toughen his statements against Ibama in the press ("few young boys who think they are saving the world") and, to placate the governors' discontent, Lula transferred the coordination of PAS from Marina Silva to Mangabeira Unger. Operation Herd Bust further intensified ruralist pressure in Congress to revise the Forest Code, a process that also served as a focal point for uniting different agribusiness actors around a common goal. Even respondents from other institutions who were reluctant to recognize Ibama's lion's share of credit for PPCDAm's results did not doubt that what tipped the scales and caused real nuisance among the ruralists were measures aimed at the immediate economic incapacitation of environmental offenders. As soon as this sector realized that – due to the work of a strong and empowered Ibama – the sanctions established in the Environmental Crimes Act were not dead letter but gained a concreteness that was very detrimental to their business, the rift between ruralists and

⁶⁰⁶ IPEA; GIZ; CEPAL, *op. cit.* p. 77.

⁶⁰⁷ ASSUNÇÃO et al., *op. cit.* p. 18.

environmentalists within the Lula government deepened, leading to Marina's resignation and ending up in the revision of the Forest Code in 2012. Led by an assembly of dissatisfied conservative forces and concluded during Dilma Rousseff's first term, the approval of the new code can be considered a foreshadowing of the political crisis that culminated in her impeachment in 2016.

At the beginning of 2003, not only Ibama, but all environmental agencies went through a very big strengthening process with public exams, hiring, etc. [...] We are not going to understand Ibama's role in that period if we do not understand the political institutional arrangement that was created. [...] Ibama was able to do what it did because, first, it had the mandate to do it and, second, it was at the center of an arrangement that articulated countless other institutions, notably the Federal Police, but also the Ministry of Defense, the Armed Forces, with the collaboration and participation of the states. [...] It is very important to understand the arrangement that allowed Ibama to fulfill that role. This really happened. It was a very strong empowerment. [...] It created an action of repression, it created tension against the forces that were really behind the dynamics of deforestation, which generated a political crisis. [...] When environmental policy, especially through command and control, started to exert very strong pressure, even though in the previous moment there was a collaborative relationship with the states, some of the more agro-exporting states revolted, and Lula clearly preferred the maintenance of the political pact than to pay for it. [...] This changed everything, because from that moment on, Ibama no longer had that protagonism, that centrality. It lost strength as a command and control agency to repress environmental illegalities. (Interview with a former employee of the Ministry of the Environment).

From Operation Herd Bust on, if you check the date, is when the discussion about the Forest Code started to boil over. Because that agency from 1989, with the Constitution of 1988, the Environmental Crimes Act of 1998, and the Forest Code from 1965 started to be enforced based on the strategy of deterrence. Of course, there were partner agencies, the Federal Police would take one case, sometimes the Military Police would take another, but the essence of the process was entirely conducted by Ibama. When the Forest Code was discussed, this whole thing was boiling. [...] All this shows the following. These actions of the institution reverberate in the world of politics. It is clear that this whole consortium, in my modest opinion, influenced the country to get where it is now. But as dialectics imposes itself, there is now, in this short time of national tragedy, the germ of a transformation again. (Interview with an Ibama servant).

A last development in terms of authority that occurred during the Workers Party period that must be highlighted was a simplification of the judgment phase in the sanctioning administrative procedure. We saw in subchapter 7.1 that previously offenders could have up to three appeals, which significantly delayed the application of fines. By 2012, the possibility of appeals had been reduced to one. Procedures were distributed among judging authorities according to the amount of the fine. Infraction notices equal to or higher than BRL 500,000 were judged entirely (first trial and appeal) at Ibama headquarters in Brasilia. Those that did not exceed BRL 100,000 were judged within the decentralized units. For those between BRL 100,000 and 500,000, the first decision was made in the decentralized units and the second in

the headquarters.⁶⁰⁸ By distributing decisional units across different hierarchical levels and geographical locations, the new system endowed Ibama's authority with less control integration and more compound complexity, to reemploy two terms of art defined in the theoretical chapter.

Table 9: Division of competences for judging environmental fines

Judging authority	Unit	Fine amount (BRL)	
		1 st trial	2 nd trial
Servant appointed by internal ordinance	Decentralized units in subnational states	Until 100,000	-
Chief of decentralized unit	Decentralized units in subnational states	Higher than 100,000 and lower than 500,000	Until 100,000
Coordinator of the Division of Collection and Evaluation of Environmental Fines Credits (DIMAM)	Headquarters in Brasília	Equal or higher than 500,000 and lower than 10 million	Higher than 100,000 and lower than 500,000
General Coordinator of Collection and Control of Administrative Credits (COADM)	Headquarters in Brasília	Equal or higher than 10 million	Higher than 500,000 and lower than 10 million
Ibama's president	Headquarters in Brasília	-	Equal or higher than 10 million

Source: BRAZIL. Ministério da Transparência e Controladoria-Geral da União. Relatório de Avaliação do Processo Sancionador Ambiental – Ibama, 2019, p. 24. With the issuance of Administrative Act (“Portaria”) No. 563/2018, one judging authority (DIMAM) was suppressed and the last value range (up to BRL 10 million) was eliminated.

To sum up, the arrival of a new batch of servants with higher education and no direct connection nor allegiance to the land-owning class supplied the brainpower needed to lead Ibama's capacity-building process. Hired through public exams, not political appointment, these servants were quickly elevated to leadership positions in the first Lula government and provided with relatively autonomous conditions to develop new ideas. Reducing deforestation in the Amazon, an objective both derived from the constitutional and infra-constitutional norms already in place and set by a political decision of a left-wing reformist government, was given the highest level of priority in the inspection department.

The coercive apparatus that had begun to be built up in the previous period was strengthened. Most importantly, it started to be, for the first time, redirected against more high-profile targets, that is, large farmers and other capital-owning individuals involved with illegal deforestation. The main outcome of this process of institutional experimentation was the

⁶⁰⁸ BRAZIL. Ibama. Normative Instruction (“Instrução Normativa”) No. 10/2012.

consolidation of the doctrine of deterrence, which translated Ibama's legal attributions into practical guidelines of action to orient the servants in their daily activities. Inspired by a leftist reading of Clausewitz's warfare theory, the doctrine postulated the concentration of organizational energies on operations aiming at high-visibility targets and resulting in the immediate decapitalization of the offenders. Its efficacy was tested in different settings of increasing scale and complexity, and its validity has been endorsed by a Judiciary that previously almost always sided with the offenders. Its results, albeit limited, were harshly felt by agribusiness actors, who were key players in the political backlash that followed suit.

In the next section, we will analyze the transformations undergone by Ibama in the nodality dimension of its organizational capacity, equally important to the efficacy of the doctrine of deterrence. These included the refinement of monitoring tools, the structuration of an intelligence department, participation in a Latin American network of inspection, and the institutionalization of a more robust social communication policy. The reader may have missed a more detailed discussion about the principle of shared liability across supply chain actors, also incorporated in the presidential decrees passed in the context of the PPCDAm and devised in Ibama's doctrine of deterrence. This topic will be dealt with in subchapter 9.1.

8.2 Nodality: monitoring tools and media battle

Nodality, as defined in the theoretical framework, refers to the informational dimension of state capacity, encompassing channels used by agencies to both *receive* and *send* information. Let us begin with the tools available to Ibama to receive information. This subject has been extensively dealt with by scholar Raoni Rajão, whose work we will dialogue with more directly in the first part of this section. In the pre-PPCDAm period, deforestation alerts already reached Ibama through different means. Inspections could be launched in response to formal or informal denounces by citizens or other authorities such as judges and prosecutors. They could also be carried out *ex officio*, on the agent's own initiative, which often gave rise to accusations of casuistry and lack of systematicity by offenders in court. Data on deforestation spots could also come to the knowledge of Ibama through a satellite system called Prodes, which was developed and monitored by Inpe, Brazil's National Institute of Space Research.

Inpe began to monitor deforestation in the Amazon with satellite technology in 1988. Its first satellite system, Prodes, generated annual reports on aggregated deforestation. As contended by Rajão, Prodes had two aims: first, demonstrating to the international community that the Brazilian government was committed to the environment; second, developing national

technology that could confront the predictions of foreign scientists about the desertification of the Amazon.⁶⁰⁹ In the 1990s, Prodes data was kept confidential by governmental authorities, who considered it “a strategic asset and its secrecy a matter of national security.” Representing deforestation as “sovereignty” was a remnant from the military regime, only eradicated within Inpe’s cadre long after re-democratization.⁶¹⁰

Until 2003, therefore, Ibama had solely limited access to deforestation data. This changed when Marina Silva was appointed as Minister of the Environment. She authorized a group of Inpe’s scientists (who were afraid that this politically imposed confidentiality could “tarnish their scientific credentials” and “alienate them from the prestigious North American and European research institutions where many of them had obtained their PhDs”) to publish Prodes data directly on the internet. Her authorization meant a “radical transparency tactic” that “bypass[ed Inpe’s] normal hierarchical procedures” and “creat[ed] an irreversible situation” for the permanent openness of Amazon deforestation data.⁶¹¹ Since this episode, the deforestation data collected and processed by Prodes and Deter, Inpe’s two main satellites, are made available to the general public on the agency’s website. What had been originally conceived by an authoritarian regime as an instrument of colonization and occupation policies, with the arrival of activists in socio-environmental movements to power with Lula’s election, was transformed into a tool to fight illegal deforestation.

Despite configuring a crucial milestone in the capacity-building process to tackle the problem of deforestation, Prodes, as an annual indicator of aggregated forest clearing, operated with a delay of almost two years between the time of deforestation and the availability of data in the field. This made its use by Ibama’s inspectors to calculate deforested areas when issuing fines and embargos very limited. In 2004, in the scope of measures planned under PPCDAm’s monitoring axis, Inpe developed a new system called Deter, which was able to detect and send real-time data on deforestation spots. Initially, it operated with a resolution of 25 hectares. With Deter, remote sensing became an integral part of the routine of Ibama rangers and managers, bringing substantial changes to operational and strategic planning. If before “enforcement was

⁶⁰⁹ VURDUBAKIS, Theodore; RAJÃO, Raoni. Envisioning Amazonia: Geospatial technology, legality and the (dis)enchantments of infrastructure. *Nature and Space* 0:0, 2020, pp. 1-23, p. 5.

⁶¹⁰ RAJÃO, Raoni; GEORGIADOU, Yola. Blame Games in the Amazon: Environmental Crises and the Emergence of a Transparency Regime in Brazil. *Global Environmental Politics* 14:4, 2014, pp. 97-115, p. 109.

⁶¹¹ RAJÃO; GEORGIADOU, *op. cit.* p. 109. The authors granted us a fascinating interview excerpt with one of Inpe’s servants who led this movement: “I asked only one person if it was possible to open the deforestation data – to Marina. I did not ask my own director at Inpe. With the support of the minister Marina we have put the data on the Internet. In any case, there isn’t a single document authorising this. But there were also no official requests asking the data to be taken out from the Internet. The idea is that if we made a formal request, this would have been evaluated by different parts of the government and somebody would have said ‘no’. And you cannot win against a ‘no’ from the Ministry of Foreign Relations.”

entirely dependent on ‘luck’ and the technicians ‘forestry instincts,’” as Rajão put it, now it was mediated by orbital imagery, computerized polygons, and statistical reports that traveled from Inpe’s laboratories in São José dos Campos, São Paulo, to Ibama’s coordination of inspection in Brasília, and then to Ibama’s operational bases spread across the Amazon.⁶¹²

One interviewee who worked at Ibama and happened to have an educational and professional background in satellite technology provided a detailed account of the flux of Deter data and the division of tasks between Inpe and Ibama employees. Whereas the firsts are the undisputed “experts in remote sensing,” the latter are the recognized specialists in inspection and accumulated knowledge in how to transform detections into targets. His description tended to accentuate the role of the latter in refining the tool’s calibration and developing new functionalities, such as calculating the growth speed of polygons to detect highly financed deforestation fronts with greater destructive potential. “Knowledge transfer from here to there,” in his account, was one of the main conditions allowing for the gradual refinement of Deter. In 2015, Inpe launched Deter-B, which has 64 and 56 meters of spatial resolution and a minimum mappable area close to 1 hectare (even though the data made publicly available has a slightly lower resolution of 6.25 hectares.)⁶¹³

With Inpe the relationship at the technical level has always been excellent, as long as Inpe does its attribution, its expertise, and Ibama can do what it does from the moment it enters its area, like inspecting. If you ask Inpe how it should inspect, they may have some kind of opinion there, but we will not necessarily agree. But they are the experts in remote sensing. Nobody questions Prodes, for example. Deter is the one that can give some divergence because there is a flow of data between the agencies. So, if you see a defect in the data when it arrives here for inspection, this is not within Inpe's competence. Inpe needs this feedback from Ibama to improve the tool. [...] We had to do a little report, it was a Google Docs that we filled out of the Deter polygons, if it was positive or not, which went back to Inpe and improved detection calibration. [...] The data goes into Ibama, and then Senima, the monitoring sector at Ibama, adds layers, so to speak, it adds columns of attributes to these polygons. If it is in conservation units, and so on. When you refine the sensor, you detect more. (Interview with an Ibama servant).

[Ibama’s] analysts realized that the question is not the number of polygons. If I have a polygon here and five days later, there is another polygon pasted on it, then another polygon attached to these other two, in fact, I have a polygon that is growing. Then we arrived at the polygon growth speed calculation, which is an indicator that a polygon that grows fast will get big. Because there are a lot of people working [to deforest], there is a big investment there. [...] This was transformed into a plugin for scanning polygons and calculating the speed by the date the polygon was detected. Each polygon was acquired in a satellite image on a certain date. You can calculate velocity; velocity is a good indication of polygons that will get large, so they should be prioritized. This is an example of monitoring knowledge combined with detection to establish targets. The guy from Inpe would never come up with this idea. I mean, he could, but it would depend on a much more individual experience than training in

⁶¹² RAJÃO; GEORGIADOU, *op. cit.* p. 8.

⁶¹³ BRAZIL. INPE. Deter. Available at: <<http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/deter/deter-intenso>>. Accessed on 01 March 2021.

geoprocessing. [...] Intense Deter is already a result of this, of the knowledge transfer from here to there, to make the product work, which is a strategic, important product. (Interview with an Ibama servant).

There is a difference between what is a detection and what is a target. Inpe doesn't know how to monitor. It will see the change in the forest, so it is detection. To know if it is worth spending money with an inspector to go after it you have to filter to see if it becomes a target or not. Otherwise you keep mapping, mapping, mapping and you drown in information. This is what the state of Pará, for example, did. It built a NASA of monitoring and then was not able to give flow to the amount of polygon it acquired. The hole is much deeper. [...] At the technical level we know that a better resolution image is great, but it is no use trying to surveil the whole Amazon with a better image. What are you going to look at a giant area with a magnifying glass for? Unless you want to make expert reports on embargoed areas, for example. But then you can hire just the view of those places where you need it. (Interview with an Ibama servant).

Besides discarding false alerts, improving calibration, and coming up with the idea of calculating polygon growth speed as a technique to differentiate detections from targets, at a certain point around 2013 Ibama started to monitor orbital images internally. Agents who had technical knowledge in remote sensing, bothered by the long time it took for Ibama's team in Brasília to process Inpe's data, and inconvenienced by the large number of false positives indicated by Deter (in its first version of 2004), began to download images directly from Landsat 8 and other satellites on which Deter was based. From the viewpoint of Ibama's expert in remote sensing quoted above, the second version of Deter launched by Inpe "basically was the methodology that Ibama used for focus areas," but with a better structure to process a larger quantity of focus areas. In his words:

Deter was kind of coarse. I worked in Acre, there was less deforestation there. Deter was very coarse, it gave a lot of false positives. There is a lot of bamboos there. As bamboo is grass, it gave a lot of detection errors. When I got the format, the size was not the same. Deter was only able to measure areas from 25 hectares on and to be really precise from 100 hectares on. Since I came from remote sensing, I downloaded the satellite images and did my own Deter there. Deter was more of a nuisance the headquarters kept sending me, having to give feedback if that polygon was deforested or not. But, in a certain way, let's say, quantitatively the monitoring was good. I used the most recent satellite images and saw if there was a sign that it was or wasn't, then I knew if it was worth going after or not. Another thing is the time that Inpe takes to do it, and then the time that Ibama takes for the inspector to go to the field. Many times this did not work well, because you have to enter the schedule in the system, you have to plan ahead. So if you do this with a Deter that you have already received, you will get a late Deter. The flow between Inpe and Ibama always worked well, because it was via web service and so on. The processing that Ibama did on top of the information took some time, a few days, then the availability took some more time for the guy to get to the field and use it. It ended up being more useful for inspection managers to map hotspots, plan and direct the operations. (Interview with an Ibama servant).

In 2013, Ibama launched its own detection monitoring, done inside Ibama itself. Because Deter was outdated, it used a molded sensor with a resolution of 500 meters. In the cloud windows we already had the Landsat image. With Landsat 8 it was much easier, the North American geological service already made georeferenced images available, they only had to assemble the band composition and were already on top of

the image. Then Ibama launched its own monitoring and started to work on its own, because Deter was outdated. Then it generated institutional jealousy in the management positions and Inpe developed this Intense Deter which is basically the methodology that Ibama used for focus areas. If you delimit the area where you want to monitor deforestation, it was Landsat 8 and now Sentinel, there are others. You take the image and put it on top of Prodes and the previous image there to flash where pink appears, you will monitor it almost like Inpe's Intense Deter. The point is that Inpe is able to structure a project to do this in a certain quantity for more focus areas. But from the technical point of view there is no secret to doing what they do. I can do it in a notebook for a smaller area, of course. I used to do this in [.]. I monitored the whole state by myself, when a new image came out, on the same day I downloaded it and saw the new deforestation. The next day I got in my car and went there to get what was in progress. Today the raw material is available, if you know how to do it, you can do it. Intense Deter doesn't make that much difference, it's good that it arrives ready. (Interview with an Ibama servant).

The perception of this servant does not seem to be echoed by the majority of Ibama's agents working with inspection. Other agents, less literate in the meanderings of satellite technology, end up depending more on Inpe's know-how, to which they refer in a more admiring and complimentary manner. This interviewee in particular, as someone exceptionally knowledgeable about remote sensing, tended to emphasize the role of his institution in contributing to the development of the tool that came to be recognized as one of the most comprehensive and reliable sources of deforestation data in the world. As emphasized by Rajão: "Inpe's monitoring systems, which for much of their history had been held under suspicion by NGOs and members of the scientific community have therefore come to be regarded as the 'envy of the world.'" They became "one of the most cited sources of deforestation data, featuring in many academic articles and NGO reports."⁶¹⁴ Different actors involved in the creative process leading to this achievement will understandably claim a share of the credit.

Leaving matters appertaining to inter-institutional competitiveness aside, relevant for our purposes is the undisputable fact that remote sensing acquired prominence in making sense of deforestation in a policy-making context. That is, under PPCDAm, the main artifacts deployed by policy-makers to grasp the phenomenon of deforestation as an object of knowledge were orbital images generated by satellites. Their use has been justified by the advantages of visibility, comprehensiveness, and determinacy, but also criticized for not taking local representations of deforestation and other kinds of environmental damages into account⁶¹⁵ – we shall return to this critique shortly.

Importantly, the incorporation of satellite technology into inspection planning provided an additional layer of protection against accusations of casuistry commonly invoked

⁶¹⁴ RAJÃO; GEORGIADOU, *op. cit.* p. 7.

⁶¹⁵ RAJÃO, Raoni. Representations and discourses: the role of local accounts and remote sensing in the formulation of Amazonia's environmental policy. *Environmental Science and Policy*, 2012. <http://dx.doi.org/10.1016/j.envsci.2012.07.019>.

by offenders in judicial proceedings to quash sanctions applied by Ibama. Remote sensing certainly did not completely eliminate subjectivity and discretion in the selection of targets. As framed by the interviewee quoted above, detecting deforestation polygons is one thing, establishing inspection targets is another. Transforming detections into targets requires intense work of filtering and prioritization by Ibama agents. From 2004 to 2017, Deter issued more than 70,000 deforestation alerts totaling approximately 88,000 km².⁶¹⁶ Only a small part of these alerts was object of enforcement actions by Ibama, which still had to choose, based on the criteria devised under the doctrine of deterrence, the locations that best suited its strategy.

While it is undeniable that technological mediation does not eliminate the subjectivity and discretion of decision-making inherent to inspection planning, the use of orbital imagery over the precise geographic coordinates of deforested areas provided a powerful shield against judicial contestations to Ibama's actions. Fines no longer needed to be calculated with footsteps and odometers; evidence of materiality was no longer solely reliant on the rangers' eye-witness testimony; properties could be identified by means other than locally recognizable reference points such as "near the tall nut tree" or "by the river bend;"⁶¹⁷ the definition of targets could not be accused as satisfying political or personal vendettas any more. Inspection activity ceased to be something "totally amateurish," in the expression of the agent quoted below, and started to be based on pre-determined criteria established in periodic planning, which in turn was nested within a broader public policy constructed in dialogue with civil society.

Before Deter, do you know how people used to inspect? Through complaints; which many times were neighbor fights. Or people would go to the region where they knew there was deforestation, walk along the roads and look for signs of dry tree branches, sometimes there was a clearing, a trail with marks entering the forest, to see if there was any deforestation. It was totally amateurish. With satellite images, we started to have targets. Let's say, those on the ground got an easier job. The guy didn't go where he wanted, he went where he knew there was something. [...] The flow of data at Inpe happens throughout the year. We already know there is a deforestation season in the middle of the year. So when we do the PNAPA, we calibrate the effort to a certain quantity of deforestation control operations throughout the year, increasing in the middle of the year (it of course decreases during the rainy season). [...] This flow of detection data is an input that has to be running. It feeds both the managers who make the hotspots to which the teams will go according to the month, and the on-site teams. (Interview with an Ibama servant).

For all these reasons, the incorporation of satellite monitoring was widely praised in PPCDAm's policy documents as an improvement that significantly increased the effectiveness of anti-deforestation efforts in the Amazon. Yet, one should not lose sight of the fact that remote sensing, as every representation artifact, cannot open up a range of possibilities of meaning

⁶¹⁶ BRAZIL, INPE. Deter. Available at: <<http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/deter/deter>> Accessed on 01 March 2021.

⁶¹⁷ RAJÃO; GEORGIADOU, *op. cit.* p. 8.

without also closing down others. Representations of deforestation mediated through satellites are not totalizing, nor do they generate an inherently universal, abstract, and objective knowledge. Even if satellites were represented by Ibama servants in their communication with environmental offenders for purposes of dissuasion as a kind of “panoptic,” the eye in the sky that oversees all from above (“bring deforestation to zero – we will see it via satellite in 15 days – and we will not take any more cattle,” was the was message given to ranchers in Operation Herd Bust), the idea that this technology is infallible and all-encompassing is evidently false. Most servants do not entertain such a delusional and shallow understanding of monitoring, but rather acknowledge that satellites are not superior to representations of deforestation, territory loss, and other socioenvironmental problems articulated by the affected groups. They agree with Rajão that “scientific and local representations could well be complementary in the context of environmental policy-making rather than always in conflict.”⁶¹⁸

This recognition of the limitations of remote sensing and the complementarity of local accounts of deforestation is well illustrated by an event revolving around the phenomenon of “pulverization” of deforestation we referred to in chapter 4. In the 2010s, loggers started to take advantage of Deter’s resolution limitation and changed their deforestation patterns to non-detectable clearances with less than 25 hectares, a process that later came to be called “pulverization” or “termitezation” of deforestation. Organized in well-funded networks, loggers began to spread small camps with up to 10 men – commonly working in conditions analogous to slavery, – and to hire satellite professionals to monitor Inpe’s public data. They employed different tactics to fool Deter and delay detection: left tall trees standing, controlled fire indicators closely, and worked mainly on cloudy days. The ingenuity of the criminal network was such that they even used a satellite signal from the U.S. Navy to communicate along highway BR163, where phone service and mobile internet are precarious. When it became inevitable that their location would be spotted as a polygon of deforestation on Inpe’s map, they dismantled the camp and resettled it deeper into the forest.

This evolution in the modus operandi of illegal loggers only came to the knowledge of Ibama, however, through intelligence produced by the Kayapó indigenous community of the Mekrãgnoti land. In 2014, a group of Kayapó leaders requested a meeting with Ibama’s officials in Brasília to confront an unfounded rumor circulating in the capital’s corridors that they would be accomplices of illegal loggers. This suspicion led to the withholding of governmental funds

⁶¹⁸ RAJÃO, Raoni. Representations and discourses: the role of local accounts and remote sensing in the formulation of Amazonia’s environmental policy. *Environmental Science and Policy*, 2012. <http://dx.doi.org/10.1016/j.envsci.2012.07.019>, p. 3.

to which the indigenous group was entitled under the licensing plan of the highway BR163, by way of compensation for the impacts caused by construction works. Intrigued with the lack of deforestation alerts over the Kayapó land in Deter, Ibama's officials set up an on-site task force. There, guided through the forest pathways by a group of Kayapó – who used radio as a main internal means of communication – Ibama's rangers dismantled five camps and rescued 44 people in conditions analogous to slavery. This episode was the kickoff of what came to be called Operation Flying Rivers, which resulted in the arrest of two agribusiness heirs from São Paulo whose family fortunes stem from political ties to the military dictatorship, and in the dismissal of an Ibama servant who was feeding them with privileged information.

According to the interviewee, Operation Flying Rivers contributed to the development of Deter-b in 2015. The operation also triggered another innovation in Ibama's nodality tools: the creation of two mixed brigades of indigenous peoples and Ibama rangers to monitor intrusion and deforestation inside indigenous territories. The initiative, however, was discontinued after the institutional blackout during the Bolsonaro administration, and it is still not clear if and how it will be resumed in Lula's third term with funding from the Amazon Fund. This description of Operation Flying Rivers was extracted from the fragment quoted in the footnote below, provided by one of the Ibama agents who participated in it.⁶¹⁹

⁶¹⁹ Operation Flying Rivers is so remarkable that the interview fragment narrating it deserves to be quoted in full, even if in a footnote: "One day the enemy also evolved. As it was organized crime, it started to hire geo professionals to professionalize deforestation. The geo guys kept looking at Inpe's public data and knew where Inpe had located criminal activity. When a dot coincided with their camps, they dismantled it. They knew that Ibama would go there, so they settled the camp in another place. This process has been called the pulverization of deforestation. But we didn't find that out by ourselves, because the forest is huge and the guys down there are operating as termites. That we owe to the Kayapós in BR 163. What happened it's an interesting story. One day I arrived to work at Ibama in Brasília, parked my car in the garage. I heard a lot of noise. The security guard told me: 'there are a lot of indigenous here, they really want to talk to you.' I asked: 'do they want to talk or to make war?' 'They are all up there.' I went upstairs. When I arrived, the Kayapós were all painted for war and had bows and arrows. 'Who is the leader? Can you put the weapons in the other room, so that we can talk?' 'No, we will not put the weapons aside.' 'So I will take my weapons, my guns will be pointed at you, your bows and arrows to us, and that is how we will talk?' 'We will put them aside.' This was the end of February 2014. They said: 'someone is deforesting our land and it has been said in the Civil House that it is was we who are deforesting, that we are giving timber to the bandits, and that is a lie.' There was a meeting in the Civil House, I don't know what Ibama's president said there. 'Who is deforesting is not us, it's the loggers.' I called a colleague to take a look at Deter-A; it was this Deter that we had, in the land of [...] and [...], to see what polygons of deforestation there were. The guy went there, checked, and said there was no polygon of deforestation. Then [the Kayapó leader] said: 'but there is deforestation.' I look at the face of the indigenous leader and said, 'man, I will go there. I will go there and see this deforestation.' 'When?' It was the end of February. 'On April 2nd I'll be there.' I will look for you in the [...], and you will show me this story. On April 1st, I gathered a tactical team with the fiercest guys in Ibama in deforestation combat, highly armed. I called the National Force and Pará's Federal Police to come with us. I assembled a task force and met with the indigenous people in [...]. They led me to the reserve; I remember there was a radio there. Each community has a radio put there by the Institute [...] for them to communicate. The guy picked up the radio, I didn't understand anything. He told me: 'they are deforesting; the chainsaws are snoring.' 'How do you know?' 'We know.' 'But do you communicate here? Do you know where everyone is deforesting?' 'We know.' I said, hey, there's something interesting there. 'Let's go there where the guys are deforesting.' A group of indigenous left ahead, my team all behind, we were accompanying the indigenous, who went with bows and arrows. When we arrived at the camp, the indigenous only pointed the camp to us. We [shouted] 'Ibama,

Rather than merely an anecdote, the story of Operation Flying Rivers is a register of the acknowledgment, by Ibama's officials, of the limitations of satellite technology and the complementary character of scientific and local knowledge. Yet, in my reading, although the importance of including local representations of deforestation in the agency's routine has been stored in the organization's social memory, it still has not been sufficiently institutionalized into perennial forms of cooperation between Ibama and the affected groups, notably indigenous peoples. Integrating high-tech monitoring with knowledge produced by forest peoples is one of the main challenges to be addressed by PPCDAm Phase V.

In addition to refining remote sensing and attempting to partner with indigenous brigades for monitoring purposes, Ibama adopted another strategy to enhance its nodality tools during the first cycle of PPCDAm: building up a department specialized in inspection intelligence. Intelligence agents describe themselves as the "soldiers of silence,"⁶²⁰ whose role is "producing knowledge for inspection." They "never show up, never take credit." To be recruited as an intelligence agent, AAFs must go through a basic training course, pass a background check, and be considered sufficiently discreet, trustworthy, and competent by the department's leaders. Not all AAFs fit this profile. Servants who are too fond of giving

inspection, hands on your head, and so on.' Camp 1. We dismantled the camp. The importance of intelligence: you have to collect the data. Declaration term of the guys: 'how many of you are there?' 'We are 10.' 'How are the tasks divided?' 'We are 8 chainsaw operators, one cook, and one meloso.' Meloso is the guy who does the maintenance of chainsaws. This assessment showed that all camps operated with this size, with this basic structure. Then we got to the second camp. Same thing. Third camp. One after the other, without one single polygon in Deter, just the indigenous showing. I held a guy there: 'where is the chainsaw?' 'There is none.' 'Oh, you're not telling me where is the chainsaw? Do you see this Kayapó warrior over there?' Young, prepared to war. 'You will stay next to him until you decide to tell where the chainsaw is.' Immediately: 'oh, it's there, I'll get it.' In five days, we blew off 5 camps. We got 44 people working in camps in such a format. These 44 people there were in conditions analogous to slavery. Stuck in the middle of the woods, without being able to get out. When a guy opened a huge box, 'what it's in there?' 'Our meat.' They guy opened, the methane gas fell in my face, 'but this meat is rotten!' The guys were eating rotten meat, without protection, without guns, without anything to fight jaguars, nothing. Unless their guns were hidden somewhere else. Zero protection equipment. Slave labor. Now let's hear all the 44, because in old times they would just issue an infraction notice. Not me, I will hear everybody. 'Who is the land grabber? Who is the gato, the guy who recruited the labor force?' They told us, you know? I heard one by one separately. I took all those declaration terms, attached them to the proceedings. I issued a notice against the land grabber from São Paulo, that grabber from Jardins [rich neighborhood in São Paulo]. I organized a criminal denouncement and sent it to the Federal Police, which opened up an investigation. The PF brought together the Federal Revenue Service, the Federal Public Prosecution Office, and they set up Operation Flying Rivers. 23 people were arrested, including the grabber and his sister there in São Paulo. I went to the press briefing meeting of the operation. Everybody spoke, I was the last one to speak. When they gave me the word, I said: 'yes, perfect work of all agencies here, Federal Police, Prosecution Office, Revenue Service, Ibama, but I'll tell you something. If it was not for the Kayapós, there would be no operation. [...] If someone today asks me: 'what is the first measure you would adopt to curb deforestation in the Amazon?' There's command and control to fight crime. [I would need] 2,000 agents and 12 helicopters more. What else? The first thing is to empower traditional communities in the protection of their territories. How to empower? Why don't we hire indigenous people to inspect indigenous land? Why? After this work I've done with the Kayapós, I realized that. And I hired two indigenous brigades there with them. (Interview with an Ibama servant).

⁶²⁰ All quotations in the paragraphs referring to intelligence came from an interview with an Ibama servant.

interviews on television, showing up in newspapers, or bragging out loud about their work in the hallway, are automatically out.

With a small team (only circa 40 people for the whole country), intelligence agents operate in less than 10% of enforcement actions. “As in any other institution,” one of them explained, at Ibama “intelligence works on what is a priority:” usually “big cases, with major environmental offenders, matters of federal competence.” Operations Weak Meat, Shoyo, and Remote Control (all discussed in subchapter 9.1 below) are examples of priority cases that hold financial institutions or upper actors in the supply chain liable for illegal deforestation, and had the decisive involvement of Ibama’s intelligence.

Intelligence is basically divided into two dimensions. The first is analytical, which is dedicated to transforming ordinary raw data into information meaningful for inspection with the application of investigation techniques. Intelligence agents from Ibama have full access to the Brazilian Intelligence System (Sisbin) and usually work in cooperation with servants from other institutions, such as the Federal Police, Ministério Público, and Abin, the Brazilian Intelligence Agency. The second dimension is operational. It consists of covert action: agents operating undercover in the field to obtain what in intelligence jargon is called “denied data.” Despite representing only around 5% of all data analyzed by intelligence agents, denied data is considered “what makes a difference” in “the fight against organized environmental crime.” It is data that “is not on Google, is not on the internet, is not in any system;” therefore must be obtained through unconventional means. Covert action is particularly useful for discovering the real identity of landowners, almost always hidden from officialdom behind layers of henchmen and laundering schemes. Another issue intelligence takes care of is attacks on bases, vehicles, helicopters, and employees of Ibama. The team monitors preparatory acts and inflammatory speech on social media, accordingly alerting coordinators and field agents about concrete risks. In sum, intelligence potentially reduces the cost and time of ostensive operations, liberating field agents to do with more quality “what cannot be done remotely: to incapacitate the offender, destroy equipment, go after deforestation that is active.”

In Amazonian states, intelligence suffers even more severely from staff shortages than in the rest of the country. As it deals with sensitive information, it is considered better to have nobody in determined risk areas than to have somebody who doesn’t fit the profile. At the time of the interview, there was no one doing intelligence work in Amazonas. In other states, such as Pará, there was only one person. Besides chronic understaffing, in the account of the servants, intelligence also struggles with budget constraints and contractual difficulties, problems that hinder the adoption of more sophisticated equipment. Technological shortcomings not only

obstruct gains in scale but, most seriously, can put undercover agents at risk, a concern long voiced by the servants.

Another action taken by Ibama to build informational channels during the implementation of PPCDAm – the last one we will discuss in this section – was joining the Latin American Network of Environmental Inspection [*Red Latinoamericana de Fiscalización y Cumplimiento Ambiental*], abbreviated as Redlafica. The network, originally denominated South-American Network of Environmental Inspection [*Red Sudamericana de Fiscalización y Cumplimiento Ambiental*] (shortened as Redsufica), was created in 2013 by the public institutions responsible for environmental inspection in Colombia, Chile, Ecuador and Peru. Its purpose is to improve environmental inspection in the region and strengthen the organizations in charge of this function, by solving cross-border environmental problems and effects; developing indicators associated with environmental inspection at the regional level; strengthening capacity by providing training; and sharing practices, information, and approaches to environmental problems faced by different countries in the region.⁶²¹

Brazil applied to participate in Redlafica in 2014, together with Paraguay. In 2016, Argentina was brought on board. In 2017, Bolivia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Panamá and the Dominican Republic joined the group, then renamed Redlafica. The mid-level servant who articulated Brazil's entrance in Redlafica justified the relevance of taking part in the group with three arguments: (i) opportunities of international exchange are very motivating for professional development; (ii) the type of bond formed in these meetings fast-tracks information exchange across countries, especially in intelligence, where trust is often built first at the personal level and then at the official level; and (iii) comparisons with strategies from neighbor countries allow to identify problems and solutions that were previously unknown to Ibama. With regards to this last point, he underscored that, by learning how the Peruvian agency constructed its sanctioning procedure (in much closer dialogue with the academic community and civil society councils than in Brazil), and how the Colombian agency defined the rules for calculating penalties (taking in consideration the financial gain obtained by the offender in each case rather than establishing a fixed amount for all cases), increased his awareness about issues that Ibama could improve.

Furthermore, when one considers that the problem of Amazon deforestation (along with correlated crimes, such as land grabbing, illegal mining, money laundering, drug trafficking, etc.) is not restricted to Brazil, but extends to all Amazonian countries (Bolivia,

⁶²¹ REDLAFICA. Estatuto de la Red Latinoamericana de Fiscalización y Cumplimiento Ambiental. Available at: <http://www.oefa.gob.pe/?wpfb_dl=38173>. Accessed on 10 July 2023.

Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela), cooperation between regional inspection agencies becomes even more relevant. With these concerns, Brazil intensified its participation in Redlafia during the presidency of Suely Araújo in Ibama from 2016 to 2018. This development will be the object of subchapter 9.2.

Let us now redirect our attention to the other end of Ibama's nodality, its channels for *sending* information. Before 2004 (and even later, during the initial years of PPCDAm's implementation), it prevailed the perception that the agency was "hiding in fear," was considered a "black box," a "closed space." In the perception of a former servant, this mistrust was probably fueled by the way the agency was portrayed by the media after controversies involving licensing, the most notable case of which was the Belo Monte hydroelectric plant:

There was no information about anything on the website, it was very weird. Maybe because Ibama always has been beaten up by the press for wrong decisions, not made by Ibama's own technical staff, but imposed by several governments in the licensing area. [...] There was no open data portal, it was difficult to find information. [...] One had no access to sources, one had a hard time following the thread and being able to understand the decisions. (Interview with a former Ibama servant).

This distant relationship with the press changed radically as the doctrine of deterrence began to be applied and deliver results. The idealizers of the doctrine soon realized that it was not enough to concentrate the agency's scarce resources on operations targeting high-profile environmental offenders. Although the local prominence of the targeted offenders was already a factor that propelled the spread of news about the operation among other offenders in the region in an "organic" way, through the press news about Ibama's actions could travel faster and further. In a territory as vast as the Amazon, which extends over 5 million km², mobilizing the press allows deterrence to have an even greater impact and reach.

The strategic use of the media to propagate news about inspection operations – in the agents' words, "fighting the media battle," – was thus incorporated as an integral part of the doctrine of deterrence. The second version of the manual of inspection published in 2009 foresaw that inspection actions with "great potential repercussion and exemplary character" had to include the media as a "necessary tactical element to achieve the objective of dissuasion through the dissemination of results," except in sensitive cases where disclosure could compromise the operation. The importance of press coverage to increase the visibility of operations and amplify deterrence became more and more evident as sanctions were redirected to agribusiness bigwigs. Under PPCDAm, especially from its second phase onward, Ibama underwent a gradual process of capacity-building in terms of social communication.

Ibama's communication office, Ascom, became authorized to contact journalists and inform them about upcoming operations, leaving them on standby so that the news release could

take place quickly after the action – a protocol that was already routine in other institutions, for which proximity to the press and a relationship of trust (even if equally of convenience) with journalists were not uncommon. Agents started to receive specific training in social communication from Ascom and were required to hold press conferences after the operations. These occasions were seen as opportunities to explain to society what actions were taken, what infractions had been committed, what consequences were expected. As one interviewee put it, it was a way to be accountable to society, to give “a clear message of what is being done.” Occupying these spaces also intended to prevent the ruralist narrative against environmental law enforcement from prevailing in public opinion. Spokespeople from the agribusiness historically occupied privileged spaces in newspapers and television media in Brazil – the *Agro é Pop* campaign by Rede Globo being perhaps the most famous instantiation of the close relationship between large landowners and mainstream media in the New Republic.⁶²²

The press strategy in our administration was that the press was part of the enforcement process. It is dissuasive. It is foreseen in our planning, in our rules. Every action must be extremely publicized to dissuade new offenders from committing the same illicit acts. [...] We call it the media battle. The media is fundamental to multiplying the force of federal environmental inspection. [...] We did a specific action and the media amplified the strategy. (Interview with an Ibama servant).

Communication is a tool of deterrence. When you publicize a successful inspection action, you go beyond the accused. You show the others that they can also suffer what the accused is suffering. Until 2019, Ibama used this very well. The press was always there to accompany the actions of greater impact. Before launching big operations, we looked for the press. We already sought, through Ascom, the mainstream media to publicize them. It has a fundamental role. (Interview with an Ibama servant).

Deterrence was multiplied by ten when we destroyed a piece of equipment and this was publicized. [...] When we use the social communication tools in our strategy – and this is regulated, – we use professionals in the area, who are inside the agency. We use our Ascom, our communication office. For example, if I call a press conference within our regulations, the person who will speak has to be prepared for the questions and to adopt the necessary posture for the result of that operation. If you will hold a press conference to talk about irregular occupation inside an indigenous land X. What is the history of this indigenous land? We prepare you for this. Ascom prepares the guy and this person goes there practically with the role of a spokesperson for the institution. (Interview with an Ibama servant).

We use social communication strategy as a basis for achieving institutional performance. It's that story: it is not enough for the hen to just lay the egg; she has to cluck – some people use this rude saying. But in fact it is exactly that. [...] You have to go there to perform an operation and demonstrate to society that, in fact, you were there, giving a clear message of what is being done. (Interview with an Ibama servant).

One of the most interesting developments of the new social communication strategy adopted by Ibama during PPCDAm, however, concerned not unilateral initiatives by the agency

⁶²² BRUNO, Regina. Movimento Sou Agro: marketing, *habitus* e estratégias de poder do agronegócio Conference paper presented at the 36th Anpocs Annual Meeting. São Paulo, 2021, p. 2.

to mobilize the press, but a flux that worked the other way around. In the mid-2010s, it became institutional policy that journalists – as outlined by an interviewee, from all kinds of media outlets, regardless if written or televised, printed or digital, mainstream or independent, “there was no predilection for a particular broadcaster” – could apply to cover field operations. If there were an empty seat in Ibama’s helicopter and the journalist signed a waiver of liability for damages resulting from potential air crashes, shootings, etc., she could come along to observe the inspection team. “Even if it is to criticize,” added the respondent.

This innovation in the way of dealing with the press had profound consequences on Ibama’s relationship with civil society in different aspects. Most importantly, here the interaction did not consist of a governmental agency feeding newspapers with scoops – a unidirectional flow that could give rise to suspicions (even if unfounded) of press co-optation and sanitization of information to propagandize the institution’s performance. The flow was inverted: journalists gained unrestricted access to entire operations, which they could watch live, without the possibility of Ibama editing or erasing any fact that could come across as compromising or embarrassing to the institution. Eye-witnessing operations in an environment and circumstances where the state has little or no control endowed the journalist’s experience with a strong dose of authenticity, which reflected in how they reported the story.

What did I put as communication policy together with Ascom and the president of Ibama? Whoever wants to cover an Ibama operation – any press, televised or written, small newspapers, internet press – whoever wants to go, if there is a place in my helicopter, will get in. Even if it is to criticize me. They can come. This was a great success because the reporter stayed with me in the middle of the forest. Then we would get the truck, they would shoot at us, we would shoot at them, the reporter would be in the middle of the gunfire. Then he had an idea of what we were going through in the middle of nowhere. Then he divulged it, and that dissuaded the guys. [...] Without the press, we wouldn't have done a tenth of what we did. Every action you take in a biome like that, you echo it. The result of the drop in deforestation is immediate. Ibama arrested Castanha on BR163. Then deforestation on BR163 fell by 60%. When [Vilela,] the land grabber from São Paulo, was arrested, deforestation fell on BR163. It fell. If the press didn't have [publicized] it, it wouldn't fall at all. Transparency is the rule. [...] My order was that any press organization that wants to come and signs a term exempting Ibama from responsibility in case of an accident with the aircraft or a shooting, can go. I've given a lot of interviews for *O Eco* [a smaller independent newspaper]. There is no predilection for a particular broadcaster. Whoever wants to go, can go. That's how it worked. (Interview with an Ibama servant).

As a fundamental principle guiding public administration in constitutional democracy, transparency should be the rule, regardless of whether it gives material to praise or criticism of a state organization. In the happy case of Ibama during the times of PPCDAm, allowing for greater accountability of inspection operations reverted to very positive results. On the one hand, it helped to promote the agency’s image before (a part of) civil society, showing evidence that inefficiency, apathy, and corruption no longer defined Ibama. The country now had an

environmental agency whose work could be increasingly described as serious, technical, competent, and ethical. On the other hand, strategic use of the media succeeded in amplifying deterrence in regions where large landowners had been targeted. The immediate drops in deforestation alongside highway BR163 after the arrest of Castanha⁶²³ and Vilela⁶²⁴ in the scope of investigations reliant on Ibama's intelligence are emblematic manifestations of the successful amplification of deterrence through the media.

Stronger ties between a renewed Ibama, reinvigorated after the injection of young entrants with no allegiance to the landowning class, and journalists from different media organizations, many of whom became increasingly committed to voicing the importance of harder command and control instruments, resulted in the production of communication that won the approval of part of civil society to anti-deforestation operations. Evidently, there are sectors of Brazilian society that nurture no particular affection for the agency. These include not only the agribusiness barons who profit most from the frontier expansion and enjoy easy access to representatives in Congress, but also the non-indigenous and non-traditional populations living in and migrating to Amazonian municipalities whose local economy depends on deforestation. Greater exposition of Ibama's actions in the media, instead of raising awareness among these populations of the adverse consequences that could ensue from the desertification of the Amazon, often had the effect of inflaming acts of revolt against the environmental agency. These repercussions caused by the application and publicization of the doctrine of deterrence will be discussed more closely in subchapter 9.2. Next, we will go through the transformations in the treasure dimension of Ibama's organizational capacity.

8.3 Treasure: equipping the agency while combating corruption

Treasure denotes in our theoretical framework any kind of material resource available to the agency to pursue its institutional goals, such as budget, infrastructure, or access to alternative sources of funding. We will cover all three aspects in this section, looking into

⁶²³ Ezequiel Antônio Castanha migrated from São Paulo to the Amazon in the 1980s. He owned a chain of supermarkets and was accused of using it to launder money from deforestation and land grabbing in the region of Novo Progresso, Pará. See TORRES, Mauricio; DOBLAS, Juan; ALARCON, Daniela Fernandes. *“Dono é quem desmata” Conexões entre grilagem e desmatamento no sudoeste paraense*. Altamira: Instituto Agrônomo da Amazônia, 2017, p. 78.

⁶²⁴ Antonio José Junqueira Vilela Filho, alias AJ Vilela, is a cattle rancher and agribusiness heir from São Paulo. He accumulates the highest amount of fines for environmental crimes ever applied by Ibama to an individual, totaling more than BRL 332 million. See TORRES, Maurício; BRANFORD, Sue. A máfia do desmatamento (Intercept Brasil 22 March 2017). Available at: <<https://www.intercept.com.br/2017/03/22/a-saga-da-familia-vilela-os-maiores-pecuaristas-e-destruidores-de-florestas-do-brasil/>>. Accessed on 10 July 2023.

Ibama's budgetary evolution during the Workers Party administrations, as well as the servants' perceptions regarding infrastructure and the first large-scale contracts to lease trucks and helicopters. In addition, insofar as corruption is an issue related to treasure, we will delve into the inter-institutional efforts to investigate and expel corrupt servants who gave Ibama in the pre-PPCDAm period the reputation of "an inefficient and corruption-ridden organization."⁶²⁵

From 2004 to 2013 Ibama's budget experienced a general upward trend. It reached a peak in 2013, when BRL 115 million was specifically allocated to inspection operations. From this amount, BRL 96 million was effectively disbursed. This means that inspection alone consumed around 50% of Ibama's budget if one excludes fixed expenses (personnel and infrastructure). Of that half, 90% was destined for the Amazon biome. From 2014 onwards, Ibama's budget suffered a continuous decrease. In 2014 and 2015, annual resources specific to inspection operations dropped 33% in comparison to 2013.⁶²⁶ This retraction in public spending was not forced by economic recession but derived from Rousseff's "austerity turn" in her second term. The reasons why Rousseff shifted from developmentalism to a more liberal economic approach in 2014 are still being analyzed and interpreted by academics. This subject is of importance to understanding the intertwined phenomena of premature deindustrialization, reprimarization, and financialization that have strangled the Brazilian economy since the 1980s. It should suffice here to endorse Singer's proposition that the change was an attempt to maintain the support of the Brazilian industrial class. For reasons not yet fully understood, Brazilian industry owners paradoxically became increasingly refractory to Rousseff's government as policies beneficial to national industry were implemented.⁶²⁷

Be that as it may, it was in such a conflictual context that PPCDAm, simultaneously affected by budget cuts and the transfer of its coordination from the Civil House to the Ministry of the Environment, for the first time started to appear as weakened in the eyes of implementers and external observers. Respondents interviewed in this research shared the perception that, in hindsight, the largest continuous investment in Ibama had taken place during the Workers Party administrations. Notwithstanding, even in periods of relative budget bonanza, the agency's infrastructure was perceived as far below necessary for the proper fulfillment of its tasks, especially when compared to the infrastructure enjoyed by the private sector. This type of

⁶²⁵ VURDUBAKIS; RAJÃO, *op. cit.* p. 8.

⁶²⁶ BRAZIL. Ministério da Transparência, Fiscalização e Controladoria Geral da União. Relatório de Avaliação da Execução de Programas de Governo N° 69. Brasília, 2017, p. 12.

⁶²⁷ SINGER, André. *O lulismo em crise: um quebra-cabeça do período Dilma (2011-2016)*. São Paulo: Companhia das Letras, 2018, p. 57-76. For a distinct perspective, see CARVALHO, Laura. *Valsa brasileira: do boom ao caos econômico*. São Paulo: Todavia, 2018.

observation was not made in a derogatory manner towards the public sector, but to emphasize the civil servants' commitment. In many situations, Ibama rangers end up having to pay out of their own pockets to make up for the agency's shortcomings. This was how an interviewee who previously worked at a transnational mining company and joined Ibama in 2013 (the year in which the agency received the largest sum of federal funds) described his first day at work at both organizations:

When I entered [transnational company], the manager called me into the room and said 'here is a laptop for you, the key to your car is here, you will have a car available for you.' He gave me the car key; he gave me a cell phone. At that time having a cell phone was a huge thing. He gave me an internet key to use the internet wherever I was and so on. I said 'with this structure I will deliver the best results.' I left the room with a bunch of things on my arm. [...] The difference: on the first day at Ibama, the head of the office said: 'come here, I will show you your office.' He put me in a room that belonged to the old Sipam. Sipam is the old Amazon protection system. There were some antennas, a bunch of old computers. It was abandoned, discontinued. In these units in the Amazon there is a lot of equipment lying around that nobody uses. 'Your room will be this one.' There was nothing in the room, it was all moldy because it rained more inside than outside, there were some tables and chairs lying around. I went on Saturday so that I could organize my room. I bought light bulbs, I bought plugs, I had to scrape the whole wall to be able to take those things out, because I'm allergic, so I had to worry about that. From two computers, I made one, [taking] the monitor from one and the power supply from the other. I managed to start working on Wednesday, when I managed to make the computer work. It was shocking for me to see the difference in the structure to work. While in the company I had a uniform, I had everything. I arrived ready to work the next day. At Ibama I had to pay out of my own pocket to be able to work. There is a big difference in structure between the public and the private sector. [...] This huge difference in structure was one of the things that shocked me the most when I entered. (Interview with an Ibama servant).

Allocation of resources in infrastructure prioritized the supply of one essential tool for field activity: means of transportation, referred to by an interviewee as the "arms and legs" of inspection agents. For anti-deforestation operations in the Amazonian biome, they encompass mainly helicopters and trucks, the two types of vehicles most suitable for fast locomotion between deforestation hotspots. In the first years of PPCDAm, Ibama had no aerial fleet and its terrestrial fleet was very small. The agency was still very much dependent on the Army's structure to operate in the Amazon. Operations in more difficult-to-reach places required the loan of military aircraft; often the helicopters made available to Ibama were outdated or in suboptimal working conditions.

In the second phase of PPCDAm, Ibama made substantial progress in the consolidation of its own means of transportation. The agency started to sign new outsourcing contracts to rent trucks – leasing was perceived as more advantageous than purchasing, as the lifespan of inspection vehicles is shorter due to poor road conditions. Correspondingly, the agreement already included maintenance and fuel. Since then, as put by one interviewee who already worked in the field in the Amazon and now holds a management position in Brasília, "there

haven't been many problems with lack of vehicles," except "sometimes in the rainy season, as with intense use the vehicles end up breaking down."

We really put it to crack. We take a zeroed Hilux and scrape it on the branches; we use the traction to get in and out of places. I already came back with a truck all scratched up for having entered an area of clandestine forest management. 'Oh, you scratched the truck.' I said 'the truck is there to be used. The guy was committing an illicit act in the woods and I had to get in.' With this outsourcing contract, it is not so burdensome for the agency's management to maintain the vehicle. (Interview with an Ibama servant).

Besides enlarging its terrestrial fleet, Ibama started to improve its aerial fleet by signing its own helicopter lease agreements. While these contracts were in force, according to the above-quoted respondent, there was no shortage of aircraft for inspections. Agents used it in the field "well and at will." On one occasion, he spent ten consecutive days flying and had to stop only because he could "no longer cope with the amount of information" gathered, not because the helicopter was being requested somewhere else. Aircraft only stay on the ground if weather conditions are unfavorable; otherwise the recommendation of Ibama's management and the practice adopted by inspection teams are to use them as much as possible.

The importance of Ibama's helicopter lease agreements for the success of the doctrine of deterrence could hardly be overemphasized. The aircraft gives the ranger an advantage that most deforesters do not have, increasing the likelihood of catching them off guard: the ability to move at speed through the forest in places where road and river transport is precarious or non-existent. Helicopters extend the normal reach of human capability, allowing the "winged agents" to appear to offenders on the ground as if "falling from the sky" to destroy their equipment and cause millionaire losses to the deforesting enterprise. Because helicopters can land and take off vertically, they have better mobility than the small planes used by illegal miners. In Clausewitzian terms, helicopters are powerful instruments because they allow for secrecy and speed, "the two factors that produce surprise." Surprise, "the means to gain superiority," wrote the strategist, "lies at the root of all operations without exception." It has a considerable psychological effect on the opposing forces; it confuses them, lowers their morale.⁶²⁸ A similar description of the kind of prowess enabled by helicopters in anti-deforestation operations was made by the interviewee quoted above. He framed this advantage in terms of "superpowers." Another servant described the operational gains in secrecy and speed enabled by the use of helicopters in terms of "guerrilla tactics":

The helicopter is an instrument that makes a lot of difference. Because you arrive coming down from the air in the place where the guy had a hard time getting in, you

⁶²⁸ VON CLAUSEWITZ, Carl. *On War – Book III* (ed. by HOWARD, Michael Eliot; PARET, Peter). New Jersey: Princeton University Press, 1976, p. 198.

end up taking him by surprise. And if he is not there, you take off and land in the other hole up ahead, in the woods. I have the impression that you become a superhero, as if you had superpowers. You get up here and go down there, in an environment where it is very difficult to move around. I have already flown to an isolated municipality, inspected it during the day, and returned, leaving the isolated municipality. [...] The guy needed very heavy logistics to put a backhoe inside a mining site, and then an inspector falls from the sky and destroys it. Thanks to the helicopter, because otherwise we would have the same difficulty as him, and this puts us at a huge disadvantage because we don't have the same time or the same funding that he has. And we don't know the environment. The aircraft is crucial. If you discontinue the contract for Ibama's aircraft, you cut off our arms and legs for certain activities. (Interview with an Ibama servant).

Mining involves a lot of money. When we destroy their heavy machinery, they resist the losses; they have many weapons. So we started to act against mining, so to say, with guerrilla tactics. I would plan, know where the equipment was, go [first] with a small airplane, identify everyone, georeference [the area], then come by helicopter. The helicopter would come down, pick up the guy who was there, take him out. Then you had to photograph the equipment, get the documentation of the equipment if there was any, and make an assessment of that equipment so you could do the legal process of destruction. Then you would destroy the equipment with fire. You had very little time because when you got down there, the rest of the mining camp was already mobilizing to attack you, so you had to leave as quickly as possible and go to the next point. That's how we fought. Guerrilla tactics. (Interview with an Ibama servant).

Under PPDCAm, therefore, investments in Ibama's infrastructure favored the internalization of lease contracts to increase the availability of trucks and helicopters, logistic items of utmost importance to enhance the effectiveness of inspection operations. Other fronts, however understandably, were less prioritized. The next step of technological investment in the agency, according to one interviewee, should privilege software for processing big data, particularly useful to the intelligence department in the task of identifying and tracking the hidden networks that sustain environmental crime.

We urgently need technology. Ibama bought drones, Ibama has good vehicles and helicopters, but there are other technologies that we need to advance. We are behind on this point, mainly to deal with large amounts of data. (Interview with an Ibama servant).

Now that we have reconstructed the main milestones regarding Ibama's budget and infrastructure during the first decade of PPCDAm, we shall turn to the thorny issue of corruption, which has greatly stigmatized the agency in the recent past. Besides being key to McAllister and Hochstetler and Keck's readings of Brazilian environmental politics as discussed in the literature review, the image of dishonest inspectors demanding or accepting bribes from loggers also occupied a central place in Vurdubakis and Rajão's account of Ibama. As they wrote in 2020:

[F]or much of its history Ibama has been afflicted by a succession of corruption scandals with, for instance, rangers bribed to ignore (unauthorised) deforestation or being involved in the illegal sale of logging and forest-clearance authorisations.

Consequently, Ibama acquired the reputation of an inefficient and corruption-ridden organisation, a notoriety that it has found difficult to shake.⁶²⁹

Taking our cue from this sentence, – Ibama acquired a reputation of corruption that proved hard to shake, – let us unpack the succession of scandals responsible for imprinting such infamy on the institution. One of the first to be widely exposed to public opinion came to light at the beginning of PPCDAm.

Right after coming to power in January 2003 with Lula's election, the new team appointed by Marina Silva to political positions in the Minister of the Environment and Ibama's top management soon noticed that something was rotten in the office located in the municipality of Sinop, Mato Grosso. In September 2003, Ibama's management opened an internal disciplinary procedure to investigate servants working in that jurisdiction. The investigations not only confirmed the suspicions of fraud but also evinced that the reach of the criminal group operating within the agency far transcended the borders of Sinop. In August 2004, an internal working group was created inside Ibama to investigate irregularities in the entire state of Mato Grosso. Startled by the vastness of the criminal activities perpetrated by the group, one month later Ibama requested support from the Minister of Justice and the investigation was federalized. Baptized as Operation Curupira, it began to be conducted in secret and cooperatively by Ibama, the Federal Police, and the Federal Public Prosecutor's Office.⁶³⁰

On June 2nd, 2005, after nine months of undisclosed investigations, the operation was made public at a press conference jointly held by the Minister of Justice, Márcio Thomas Bastos, the director of the Federal Police, Paulo Lacerda, Ibama's president, Marcus Barros, and the Minister of the Environment, Marina Silva. On the occasion, they exposed the evidence revealing a fraud and corruption scheme installed at the federal and state levels of environmental agencies in Mato Grosso since the 1990s. Corrupt officials from Ibama and Mato Grosso's state environmental agency illicitly sold Authorizations for the Transport of Forest Products (ATPFs) to loggers specialized in illegal timber extraction. This document at the time was manufactured by the Minister of Interior and controlled by Ibama. Its official purpose was both to authorize the transport of wood logs and to certify their legal origin. Each blank ATPF was sold at a cost of around BRL 2,000. The document was so coveted that managers often kept it locked in vaults in the agency's offices.⁶³¹ With the fraudulent authorizations in hand, logging companies (approximately 430 fictitious undertakings were registered in Ibama's system) were

⁶²⁹ VURDUBAKIS; RAJÃO, *op. cit.* p. 8.

⁶³⁰ DE MOURA, Denise Gomes. *Mídia e corrupção: a Operação Curupira na Amazônia* (Master Dissertation) – University of Brasília, 2006, p. 6.

⁶³¹ Oral information provided by an ICMBio servant.

able to “warm up” (i.e. to launder) illegal timber and sell it in national and international markets. The volume of illegal wood transported by the criminal group was estimated at BRL 890 million and 2 million cubic meters, enough to fill 76,000 trucks.⁶³²

From 2003 to 2006, several other operations against environmental crimes and land grabbing, especially in the Amazon, were launched. In August 2005, Operation Curupira entered its second phase, targeting ramifications of the criminal group working in Mato Grosso over Rondônia and Pará. In August 2006, Operation Isaías revealed the same type of fraud in the state of Amapá. In December 2005, Operation Arribação extended investigations of fraud in ATPFs over the whole country. In December 2004, Operation Faroeste dismantled a land-grabbing scheme installed in Incra offices in western Pará. One can also mention Operations Black September (Rondônia), Ouro Verde (Pará, Rondônia, Mato Grosso, Tocantins, Goiás, Maranhão and Rio Grande do Norte), Rio Pardo (Mato Grosso), Terra Limpa (Rondônia), Terra do Meio (Pará), and Novo Empate (Acre and Rondônia). By the end of 2006, at least thirteen operations targeting criminal groups specialized in environmental crimes and land grabbing had been jointly conducted by the Federal Police, the Federal Public Prosecutor’s Office, and the Ministry of the Environment.⁶³³

All these operations were explicitly referred to as part of PPCDAm’s axis of monitoring and control. Although their aggregate figures in terms of applied fines and seized assets are not so precise, their net effect resulted in the pretrial detention of more than 600 public servants for crimes such as active and passive corruption, money laundering, invasion of public lands, tax fraud, and gang formation.⁶³⁴ According to Denise Moura, who wrote a dissertation on the media coverage of Operation Curupira, by the end of 2006, all individuals preventively arrested in the scope of Operation Curupira waited for trial out of custody.⁶³⁵ I did not find reliable data on the percentage of individuals criminally indicted who were found guilty at trial. As remarked above when we discussed Ibama’s tacit decision to restrict its competence to the administrative sphere, the Brazilian criminal system is historically very efficient in incarcerating the black and poor and yet incredibly slow and lenient when dealing with green-collar crimes by public employees, deforesters, and land grabbers. One should note, however, that unjust arrests of innocent civil servants also happened. This was the case of Antônio Carlos

⁶³² AGÊNCIA CÂMARA. Operação Curupira (20 June 2005) <<https://www.camara.leg.br/noticias/66549-operacao-curupira/%C2%B4mailto:agencia@camara.gov.br%C2%B4>>. Accessed 10 July 2023.

⁶³³ DE MOURA, *op. cit.* p. 8.

⁶³⁴ BRAZIL. PPCDAm fase 2, *op. cit.* p. 10.

⁶³⁵ DE MOURA, *op. cit.* p. 5.

Hummel, whose release after 5 days in jail took place due to lack of evidence. Hummel was later reinstated as a director in Ibama.

Some individuals whose participation in the scheme was abundantly documented ended up staying six months in jail. It may be that this time was already enough to dissuade a few from recidivism, as contended by a couple of respondents interviewed by Moura.⁶³⁶ Yet, far more important than criminal implications were the administrative consequences of these operations at an institutional level. Although none of the accused stayed in jail for long, it is safe to assume that most, if not all, officials caught involved with corruption by the investigations were at first temporarily suspended, and, at the end of internal disciplinary procedures, definitively dismissed from Ibama. Part of the employees found participating in the fraud schemes had been politically appointed to mid-level DAS positions and enjoyed no job stability, a circumstance that facilitated dismissal. Tenured servants taking part in criminal activities were not spared from sanctions either. Most of them had been inherited from the agencies that merged to join Ibama (thus, they did not enter public service through exams but political appointment, having been granted tenure by the Constitution of 1988).

These successive “purges” of corrupt civil servants that shook the environmental agency from 2004 to 2006 may explain Souza’s finding, to which we referred in chapter 6 when revising different measurements of state capacity, that Ibama presents a high proportion of layoffs of tenured servants in comparison to other governmental organs. She considered this indicator a sign of low capacity, under the assumption that dismissing qualified personnel is in general detrimental to the agency’s functioning.⁶³⁷ Yet, a closer look at the background and implications of the operations targeting green-collar crimes, in my judgment, allows us to interpret this data in a different way. What Ibama’s high rate of layoffs actually represents is an extraordinary institutional effort to rid the agency of corrupt servants who had been operating in the Amazon since 1990 (or earlier, if we consider the times of SEMA, IBDF, SUDEPE and SUDHEVEA). Their crimes not only greatly contributed to demoralizing Ibama and Brazilian environmental institutions as a whole before national and international public opinion, but are also directly responsible for massive forest destruction, land grabbing, invasion of indigenous territories, biodiversity loss, and countless other negative impacts. Under Marina Silva’s oversight, anti-corruption operations helped Ibama to adapt itself to fulfill the role of executive coordinator of PPCDAm. Therefore, when contextually interpreted, Ibama’s high rate of layoffs can be conversely read as an indicator of capacity-building. In-depth, intra-agency and

⁶³⁶ DE MOURA, *op. cit.* p. 138.

⁶³⁷ SOUZA, *op. cit.*

historically-situated case studies can disclose aspects of reality that remain inaccessible to quantitative, inter-agency and macro-level surveys.

Besides layoffs, the operations that swept the bulk of corrupt officials out of Ibama in the early 2000s also triggered other changes. Many modifications introduced by the 2002 entrants, – who, backed by Marina Silva’s cabinet, quickly replaced the older servants in DAS positions, – were primarily concerned with standardizing procedures and reducing the agents’ discretionary power, as discussed at length in subchapter 8.1. Over time, an atmosphere of intolerance to corruption began to prevail over the old culture of impunity, to the extent that new servants hired through exams felt empowered to denounce veteran colleagues. A case reported by an informant is quite illustrative of this clash between the old and the new, and how, despite many obstacles posed by the forces of backwardness, during the times of PPCDAm the latter prevailed over the former.

Right after entering Ibama in 2005 through civil service exams, one servant was assigned to monitor a weighing station for timber trucks in Maranhão. It was his first post at Ibama. He soon noticed the following pattern: On his shift, the timber trucks inevitably always formed a long line. Conversely, on his colleague’s shift, the queue disappeared. He forwarded this information to his supervisor. Soon it was revealed that the colleague was taking bribes from truck drivers. The colleague was immediately suspended by Ibama’s management, prompting loggers to make death threats to the agent who acted as a whistleblower. The threats intensified until one day the criminals invaded and rioted his house. After this episode, the servant was transferred to another state at his own request, only occasionally being called to joint inspection teams in different Amazonian municipalities.

Corrupt practices, of course, have not been completely eradicated from Ibama in the early 2000s. Throughout the 2010s, both during the Workers Party and Temer administrations, minor cases of officials accepting or extorting bribes to avoid enforcing penalties continued to pop up. (Under the Bolsonaro government, as we will see in chapter 10, these dynamics changed completely; what we witnessed was actually the federalization of a militia model of society or, as proposed by Fonseca et al., the arrival of a “plunder coalition” to formal power).⁶³⁸ In 2014, Operation Ferro e Fogo dismantled a group operating in the municipalities of São Luís and

⁶³⁸ FONSECA, Igor *et al.* A desconstrução organizada da política florestal no Brasil: estratégias de desmantelamento e de resistência. In: GOMIDE, Alexandre; DE SÁ E SILVA, Michelle Morais; LEOPOLDI, Maria Antonieta (eds.). *Desmonte e reconfiguração de políticas públicas* (2016-2022). Brasília: Ipea, 2023, pp. 125-156, p. 150.

Imperatriz, Maranhão.⁶³⁹ In 2016, three servants from the office of Santarém, Pará, were indicted.⁶⁴⁰ In 2017 and 2018, Operations Kodama and Corrupção targeted employees in the state of Rio Grande do Norte.⁶⁴¹ All these schemes uncovered after the initial “cleanup” undertaken from 2003 to 2006 by the Federal Police, the Federal Public Prosecutor’s Office, and the Ministry of the Environment, however, were notably more circumscribed: they involved fewer public servants, had a narrower geographic reach, and laundered less timber volume.

At this point, we may gain conceptual precision by anchoring our analysis of the anti-corruption efforts undertaken at Ibama during the Workers Party governments in the scholarly contribution of Susan Rose-Ackerman. Warning against the perils of calling every act of maladministration and self-seeking indistinctively as corrupt (it “simply fuels public cynicism” and “antagonize[s] rather than motivate[s] officials and citizens,”⁶⁴² the author has repeatedly advocated for a narrow concept of corruption. In co-authorship with Bonnie Palifka, she defines it as the “abuse of an entrusted power for private gain.”⁶⁴³ A range of well-defined practices fit under this umbrella, such as bribery, extortion, exchange of favors, nepotism, cronyism, accounting fraud, public service fraud, embezzlement, and influence peddling. The authors advance two other categorizations that are useful to illuminate the case of Ibama: a distinction between “bottom-up” and “top-down” corruption and a difference between “grand” and “petty” corruption.

Bottom-up corruption is typical of “street-level bureaucracies [that] have the most discretionary interactions with the public.” In this variety, “low-level officials collect bribes and share them with superiors either directly or indirectly through the purchase of their offices.” In the top-down pattern, conversely, “corrupt superior officials buy the silence of subordinates by sharing the gains through high pay and perks or under-the-table benefits.” The main problem in the latter is that “lower-level officials are at the mercy of their superiors[,]” they have no direct whistleblowing channels and get trapped within the corrupt system. Grand corruption, in turn, “involves a small number of powerful players and large sums of money,” usually

⁶³⁹ AGÊNCIA BRASIL. “Superintendente do Incra no Maranhão é exonerado por suspeita de fraude” (03 December 2014). Available at: <<https://agenciabrasil.ebc.com.br/tags/operacao-ferro-e-fogo>>. Accessed on 10 July 2023.

⁶⁴⁰ G1. MPF/PA denuncia à justiça servidores do Ibama acusados de pedir propina” (27 October 2016). Available at: <<https://g1.globo.com/pa/santarem-regiao/noticia/2016/10/mpfpa-denuncia-justica-servidores-do-ibama-acusados-de-pedir-propina.html>>. Accessed on 10 July 2023.

⁶⁴¹ G1. Justiça condena ex-chefe do Ibama em Mossoró por corrupção (21 October 2019) Available at: <<https://g1.globo.com/rn/rio-grande-do-norte/noticia/2019/10/21/justica-condena-ex-chefe-do-ibama-em-mossoro-por-corrupcao.ghtml>>. Accessed on 10 July 2023.

⁶⁴² ROSE-ACKERMAN, Susan. Corruption & Purity. *Daedalus* 2018, v. 147, pp. 98-110, p. 109.

⁶⁴³ ROSE-ACKERMAN, Susan; PALIFKA, Bonnie. *Corruption and Government: Causes, Consequences, and Reform*. 2nd. Edition. Cambridge: Cambridge University Press, 2016, p. 9.

concerning undue advantages in government contracts or outright embezzlement of public funds. Petty corruption generally takes the form of bribery, i.e. “the explicit exchange of money, gifts in kind, or favors for rule breaking or as payment for benefits that should legally be costless or be allocated on terms other than willingness to pay.” Its typical manifestation is the payment of bribes to low-level officials “to induce them to override regulatory rules, reduce taxes, limit fines, and allocate scarce public benefits in ways that advantage the briber.” The adjective “petty” does not imply that such practices are unimportant or tolerable; it rather “highlight[s] the difference in scale between the corruption of large deals[.]”⁶⁴⁴

By these definitions, the type of corruption found in Ibama in 2003-2006 can be easily classified as “bottom-up” and “petty.” The quid pro quo was evident: street-level officials accepted or demanded bribes in exchange for issuing fraudulent forest clearance authorizations to private logging firms. Rose-Ackerman recognizes that anti-corruption campaigns can draw positive results from law-enforcement crackdowns (operations with high police visibility and numerous arrests). Yet, to have long-term effects these must be combined with reforms that “limit corrupt incentives facing both those who pay and those who receive payoffs[.]” Reforms aiming at fighting bottom-up corruption, she contends, must come from above. They require “reform-minded officials in positions of power” who are both willing and capable of replacing old staff “with a new collection of public officials” and secure institutional whistleblowing mechanisms for street-level employees to report colleagues or superiors. Correspondingly, reforms oriented toward reducing petty corruption should focus on limiting discretion. This can be achieved mainly by streamlining bureaucratic procedures and clarifying program rules.⁶⁴⁵

Reform-minded high-level officials who created the conditions of possibility for law enforcement crackdowns, dismissed servants proven to be corrupt, hired new personnel through different recruitment means, protected whistleblowers, streamlined procedures, clarified rules, and reduced discretion. I cannot think of a better synthesis of what happened in Ibama upon the arrival of Marina Silva’s appointees to the agency’s leadership in 2003. The political nominees who entered the federal government in the wake of Lula’s electoral victory joined forces with the newcomers approved in the 2002 public exam and initiated a virtuous circle that broke the corruption trap in which the agency had been immersed since 1990. They opened investigations, collected evidence, sought the support of other federal enforcement agencies, and brought the situation to the knowledge of civil society, allowing for corrupt low-level officials who for more

⁶⁴⁴ ROSE-ACKERMAN, *op. cit.* p. 101-103.

⁶⁴⁵ ROSE-ACKERMAN, Susan. *Corruption and Government: Causes, Consequences, and Reform*. 1st edition. Cambridge: Cambridge University Press, 1999, p. 84; Rose-Ackerman, *op. cit.* 103.

than a decade sold illegal forest clearance authorizations to be denounced, judged, and expelled from public service. While the total elimination of corruption is an impossible goal in any society, as Rose-Ackerman and Palifka acknowledge, “steps can be taken to limit its reach and reduce the harms it causes.”⁶⁴⁶

In my view, there is enough evidence to affirm that Ibama took very significant steps toward reducing corruption and its impact on environmental policies. Although bribery cases still eventually come up, corruption is no longer a defining characteristic of Ibama. Academics can indeed give credit to the opinion shared by current servants that widespread corruption is in the past. One of the reasons scholars still hold on to patterns of interpretation no longer applicable to Ibama may relate to the paradox of perception: governments and organizations that provide effective conditions for investigating and fighting corruption may end up being perceived as more corrupt than those that try by all means to prevent the problem from coming to the surface. As noted by Rose-Ackerman, “perceptions change more slowly than incidence.” This mismatch happens, in part, because perception indices “do not measure the volume of bribes, the incidence of corruption, or its impact,” but can be rather “influenced by visible scandals that do not reflect underlying conditions.” Worse scores frequently reflect “freedom of the press rather than necessarily higher ‘real’ levels of corruption.”⁶⁴⁷

Here we touch upon the core issue of the mediatization of corruption. What transforms a quotidian bribery case of regional importance into a highly visible scandal of national or international repercussion, to a large extent, are media constructs. And part of the media, as the Brazilian society after the negative consequences of the Car Wash Operation cannot afford to forget, does not shy away from weaponizing anti-corruption campaigns against specific parties or politicians.⁶⁴⁸ Denise Moura showed in her dissertation on the media coverage of Operation Curupira that two of the most widely circulated press outlets at the time, *Veja* and *Folha de São Paulo*, covered the news in a way that (1) overemphasized the participation of members of the Workers Party in the corruption schemes and (2) connected the frauds in the environmental agencies with the just-blown *mensalão* scandal, which involved the Workers Party leadership and members of Congress.⁶⁴⁹ They conveniently paid little attention to the fact that the criminal

⁶⁴⁶ ROSE-ACKERMAN; PALIFKA, *op. cit.* p. 37.

⁶⁴⁷ ROSE-ACKERMAN; PALIFKA, *op. cit.* p. 20.

⁶⁴⁸ On the Car Wash Operation and its consequences for the Brazilian political and economic systems in English see MÉSZÁROS, George. Caught in an Authoritarian Trap of Its Own Making? Brazil’s ‘Lava Jato’ Anti-Corruption Investigation and the Politics of Prosecutorial Overreach. *Journal of Law and Society* 0:0, 2020; ANDERSON, Perry. *Brazil Apart 1964-2019*. London: Verso, 2019; ZANIN, Cristiano; ZANIN, Valeska Martins; VALIM, Rafael. *Lawfare: Waging War Through Law* (transl. by MURUR, Linda). Oxford: Routledge 2022.

⁶⁴⁹ DE MOURA, *op. cit.* p. 95.

groups had been illegally selling environmental permits for more than 10 years and that it was under the Workers Party administration that the conditions for a law enforcement crackdown of the magnitude of Operation Curupira first became possible.

In sum, the initial years of PPCDAM were marked by intense anti-corruption efforts to rid Ibama of the bottom-up, petty corruption that had been practiced in the agency since the 1990s. Way more important than criminal convictions and jail time were the administrative consequences resulting from the investigations, which led to the dismissal of most, if not all, servants caught involved in corrupt practices. Besides expelling the bad apples, Ibama's high-rank officials also implemented reforms aimed at streamlining procedures, clarifying rules and reducing discretion. More objective criteria to select targets, better-defined protocols for seizure, destruction and embargo, application of orbital images to calculate fines; all these measures we discussed in previous pages were, to a large extent, answers to the challenge of reducing incentives for corruption. In the next section, we shall examine in detail another impactful instrument that contributed to imprinting long-term changes in Ibama's structure and culture during PPCDAM: recruitment through civil service examinations.

8.4 Background: civil service exams and political nominations

To date, exams for recruitment of new Ibama staff members happened only five times in history: 2002, 2005, 2009, 2013, and 2021. Before 2002, as we saw in subchapter 7.4, Ibama's personnel was comprised of servants inherited from the four original agencies, who had been mostly hired by political appointment and granted job stability by the Constitution of 1988. Recruitment procedures of civil servants are fundamental tools in the repertoire of instruments available to politicians and their cabinets to influence policymaking and implementation. The rules and methods for hiring employees have a direct impact on the profile of selected candidates and can imprint long-term consequences on organizational capacity and identity of government agencies.

In Brazil, bureaucratic recruitment through standardized exams has long been considered an antidote against the patrimonialistic and clientelistic practice of political appointments that favor kinship and personal ties,⁶⁵⁰ a mechanism to elevate meritocracy of effort and talent above the “aristocracy of blood” and the “plutocracy of money.”⁶⁵¹ Assumedly

⁶⁵⁰ GRAHAM, Lawrence. *Civil Service Reform in Brazil*. Austin: University of Texas Press, 1968, p. 26.

⁶⁵¹ FONTAINHA, Fernando *et al.* O concurso público brasileiro e a ideologia concursista. *Revista Jurídica da Presidência*, v. 16, n. 110, 2015, pp. 671-702, doi: 10.20499/2236-3645.RJP2015v16e110-38.

guided by the principles of formality, objectivity and neutrality, exams would safeguard the bureaucracy against patronage and arbitrary dismissals, cushioning the impact of “pure politics” on the structure of the bureaucracy. Exams would also allow for the emergence of “islands of bureaucratic excellence,”⁶⁵² agencies in which there is a guaranteed space for technique, understood as the performance of specialized, though never neutral, skills.⁶⁵³

Critical accounts of the Brazilian exam system denounce how its current model became “absolutely self-referenced” and detached from society’s needs,⁶⁵⁴ driving a million-dollar coaching industry of preparatory courses that reproduce socioeconomic inequalities⁶⁵⁵ and failing to include the public service as a component of the ethos of candidates to public positions.⁶⁵⁶ Candidates value job security and higher salaries compared to wage jobs in the private sector as the main representations of privileges attached to public positions. They often have only a vague notion of the activities they will perform, but they enter exams with an encyclopedic knowledge about the positions’ remuneration, workload, and benefits. They often perceive the activity itself as a burden to be borne, a “necessary evil” to secure personal achievements, which correspond to maintenance or elevation of individual and family consumption standards.⁶⁵⁷

The legitimacy of examinations as a superior recruitment method in Brazil thus would historically rest upon two pillars: a “republican ideology,” which sees political appointments as an aristocratic remnant, and a logic of “school meritocracy,” which privileges evaluation methods similar to those used in schools instead of evaluation methods that simulate future work routines. This logic also leads to inviting professors instead of professionals to exam committees and to providing professional training only after the exam, instead of including training as a phase in the selection process itself.⁶⁵⁸

The validity of these critiques concerning elite careers such as magistracy is beyond doubt. Part of them seem also applicable to middle-level positions whose organizational identities relate only loosely to agencies’ core activities, such as tax auditors and retirement

⁶⁵² KLÜGER, Elisa. Construindo uma burocracia econômica de excelência: concursos de seleção para o Banco Nacional de Desenvolvimento Econômico e Social (BNDES), de 1955 a 2012. *Plural*, v. 22, n. 2, 2015, pp. 81-111, p. 106, <https://doi.org/10.11606/issn.2176-8099.peso.2015.11245>.

⁶⁵³ KLÜGER, Elisa. A contraposição das noções de técnica e política nos discursos de uma elite burocrática. *Revista de Sociologia Política*, v. 23, n. 55, 2015, pp. 75-96, p. 78, <https://doi.org/10.1590/1678-987315235505>.

⁶⁵⁴ FONTAINHA et al., *op. cit.* p. 682.

⁶⁵⁵ MEDEIROS, Raquel. Desigualdade categórica e reserva de oportunidade no Concurso de Admissão à Carreira Diplomática. *Revista de Ciências Sociais*, 52(2), 2021, pp. 313-339. <https://doi.org/10.36517/rcs.52.2.a02>.

⁶⁵⁶ MAIA, Bóris. Virando estado: o processo de sujeição burocrática entre candidatos ao serviço público no Brasil. *Runa*, v. 41, n. 2, 2020, pp. 203-219, <http://dx.doi.org/10.34096/runa.v41i2.7271>.

⁶⁵⁷ MAIA, *ibid.* p. 216.

⁶⁵⁸ FONTAINHA et al., *op. cit.* p. 673.

analysts, to mention examples analyzed in the literature cited above. To what extent these criticisms hold water regarding Ibama's selection processes, however, is an open question. It is important to highlight that most academic critiques of civil service exams in Brazil aim at their *reform*, not their abolition. Pointing out the flaws of exam-based recruitment is in no way a call to return to political appointment as the main means of building up the state bureaucracy,⁶⁵⁹ but rather intends to open space for improvements in the current system.

In that same spirit of internal criticism, in this section we analyze changes made in Ibama's recruitment procedures organized during the Workers Party administrations, inquiring how such changes reflect both the organization's accumulated experience and the political context in which it was embedded. Besides the interviews, we examine the content of examination booklets [*caderno de questões*], their corresponding calls [*editais*] used in tests for selecting environmental analysts, and pedagogical plans and handouts used in the training of new servants. Content analysis was restricted to the subfield "Regulation, Control, and Environmental Inspection," due to this study's focus on anti-deforestation policies.

When analyzing public announcements, I sought to identify qualitative changes in (i) eligibility requirements; (ii) criteria for regional allocation of approved candidates; (iii) programmatic content; and (iv) general structure of the exam (e.g. thematic areas and sub-areas, number of objective and discursive questions, presence or absence of quotas to minority groups). Exam booklets first went through a quantitative analysis on the number of questions mentioning the words "deforestation," "Amazon," and "inspection." A second analysis sought to identify qualitative evolutionary patterns in the content and skills required by exam questions. Interviews provided information about (i) individual motivation to apply for a career in Ibama; (ii) perception of intergenerational differences in the social and technical profile of approved candidates; (iii) impact of public exams on the agency's activities; and (iv) impact of the political context on the agency's activities. Pedagogical plans and handouts used in the training of new servants were also qualitatively analyzed. Data extracted from these documents concerned the structure and syllabus of internal training courses, including workload, learning modules, reading materials, and interactive exercises. All exams were organized by committees affiliated with UnB/CESPE. One important implication of this affiliation is that committees

⁶⁵⁹ In 2021 the Bolsonaro government attempted (and failed) to pass an administrative reform that would increase the number of political appointment positions to 1 million. AGÊNCIA O GLOBO. Reforma administrativa permite nomeação livre de 1 milhão de cargos (Exame 23 June 2021). Available at: <<https://exame.com/economia/reforma-administrativa-permite-nomeacao-livre-de-1-milhao-de-cargos/>>. Accessed on 10 July 2023.

were composed of anonymous experts who had academic but not necessarily professional experience in the field of environmental policy.

a) The 2002 exam

In 2002, a public announcement opened 610 positions for Ibama environmental analysts. “Environmental analysts” correspond to mid-level positions within the career of “environmental specialist” [*Especialista Ambiental*], which was created by statute within the structure of federal public administration in that same year. Besides analysts, the career of environmental specialist is composed of technicians (lower-level positions) and managers (higher-level positions). Whereas managers and analysts must hold a university degree; for technicians a high school certificate or a technical diploma suffices. All three categories earn a fixed salary plus a variable bonus. Often this bonus is calculated not in return for productivity or goal achievement, but “for academic and professional training, obtained through successful participation in regular postgraduate courses or professional qualification courses.”⁶⁶⁰

Recruitment procedures for environmental analysts amounted to two exams. The first had 20 “true or false” questions on topics of “basic knowledge” (Portuguese language, basic administrative law, math and informatics). The second exam had 20 objective “true or false” questions on topics of “specific knowledge”, encompassing notions of ecology, geology, chemistry, biology, geography/cartography, hydrology, limnology, meteorology/climatology, natural resources management, policy instruments, national and international environmental regulations). The announcement did not include a recommended reading list. It mentioned that a mandatory training course would be held for all approved candidates to introduce them to the agency’s activities, but the course was not part of the selection process itself. To be hired as an analyst, the candidate must score among the best results corresponding to the number of available vacancies, have a college degree in any area, present medical proof of physical and mental health, and not have criminal records.

The first *edital* offered a 40-hour/week working journey and a fixed remuneration of BRL 2,548. The newly filled positions were distributed across Ibama offices located in all Brazilian regions. According to their classification, the approved candidates could choose their preferred work location. 5% of the vacancies were reserved for people with disabilities. There was no affirmative action provision regarding race, class or gender. A college degree in any

⁶⁶⁰ BRAZIL. Law N° 10.410/2002, articles 2°, 4°, 6°, 11 and 13-B.

area was a mandatory requirement, but advanced academic titles (M. Sc., Ph. D. etc.) did not count for extra points.

In the 2002 exam booklet, seven questions referred to “Amazon,” three used the word “deforestation,” and two mentioned “inspection.” None of them, though, specifically addressed deforestation inspection. The issue of deforestation was framed generically with a more economic emphasis, as in the question reproduced below, which required the candidate to evaluate statements in connection with a text and a graph about the extractive economy model of Alfredo Homma, a Brazilian environmental economist:

About the subject matter of the text and the figure above, please evaluate the following items.

- 1 Public policy that creates subsidies - such as a subsidy for rubber – could displace the stretch of the graphic to the left.
- 2 When the relative prices of extractive products are higher than those of agricultural products, there is a tendency to increase deforestation and to abandon extractivism.
- 3 The figure shows that the ability to increase supply reaches its limits, due to the stocks available and the increasing cost of extraction (with the increase of the collection area).
- 4 Extractivism can be carried out in areas of Legal Reserve, in the form of sustainable forest management.

Candidates approved in the first exam participated in a 320-hour training course, whose expenses were partially covered by the registration fees paid by exam applicants. Due to the high cost of airline tickets and lodging to host the approved candidates in Brasília and other regional capitals, 60% of the course workload was designed as distance learning and 40% as in-person activities. Its pedagogical proposal was divided into six modules of 60 hours each. Modules I to IV were grouped as “propaedeutic” and addressed topics such as environmental history, onto-epistemological foundations of the environmental crisis, characteristics of Brazilian ecosystems, environmental policy instruments, and principles of public administration. Reading materials favored, but were not limited to, texts produced by the agency’s own staff and those resulting from research funded by Ibama. They included legal norms, editions of the journal *The Ecologist*, a manifesto by Via Campesina, and academic literature. Modules V and VI were praxis-oriented and encompassed case studies, simulations, and field exercises related to licensing, inspection, or management of conservation units.

As discussed in subchapter 7.4, the arrival of the first candidates approved through the 2002 exam was, and still is, widely regarded as a watershed event in Ibama’s history. Even old-school workers inherited from previous agencies celebrate the boom of creativity that emerged from that “generational clash.” Newcomers are described as “young,” lacking “professional and fieldwork experience”, but possessing “updated academic and theoretical knowledge.” This first cohort included former consultants of the United Nations Development Programme

(UNDP), who had experience with Ibama's previous projects. Two interviewees pointed to the media coverage of the 1992 UNCED and its impact on the national imaginary as factors that motivated them to take Ibama's 2002 exam.

The government authorized the first examination for environmental analysts in 2002, who took office in 2003. Then came the masses from the academy, which bumped into the mass of the woodsmen, the guys who know the woods and have enormous value. [...] What was my task? To bring together these guys from academia, who had a lot of theoretical background but none in the field, with these woodsmen, these guys from the woods. (Interview with an Ibama servant).

The first public exam in history was in 2002, when we got in. It was a huge examination [...], it agitated the country! [...] A lot of new people came in, most of them fresh out of academia, from all disciplines you can imagine, from all regions of Brazil. [...] There was an absurd internal clash of generations within Ibama. Some employees were about to retire and came from development agencies, many of whom had been trained over time and were, are, good cadres. And there was an injection of [...] newcomers, all coming from academia. Most of them had no professional experience. This was 2002. And then the Lula government came in. A good part of the public servants that the government counted on to set up the office structure were newcomers. They didn't have much experience, but had academic and more up-to-date knowledge of environmental matters, that we should conserve for use, not [simply] to protect. [...] An important part of these old-school employees saw the opportunity to make an environmental agency with this injection of people that came in. This was the start of internal transformations. (Interview with an Ibama servant).

Not everything went smoothly between the newly approved servants and Ibama's management, though. As candidates could choose their preferred work location according to their classification, hundreds of new employees from the Center-South assigned to the Amazon massively requested transfers to their places of origin after a short time of service. These transfer requests were met with much frustration and firmness by the management, which rejected most, if not all, of them. This clash provided an opportunity to further filter the profiles most suited to the agency's goals. Dozens of newly approved candidates who did not want to live and work in the Amazon preferred to give up their careers at Ibama, allowing for candidates on the waiting list to be called up. The message was delivered: the agency would not bend to the whims of employees, but the servants would have to adapt to the agency's goals in what was essential. Fighting deforestation in the Amazon *was essential*, and anyone who didn't want to fulfill their duties to achieve that goal could go look for another job. Part of those who stayed quickly climbed up to DAS functions, since Lula's cabinet preferred to rely on "fresh blood" to structure new offices and initiatives.

b) The 2005 exam

A second exam was organized in 2005 to fill another 610 vacancies. The number of objective questions on topics of "basic knowledge" and "specific knowledge" increased to respectively 50 and 70. A written essay was included. The topics of specific knowledge were

broken into six main areas (1- regulation, control, inspection, licensing and audit; 2- monitoring; 3- environmental quality; 4- forest and fishery resources; 5- ecosystem conservation; and 6- environmental education). The second call offered a fixed remuneration of BRL 2,573.86.

The training course was no longer mentioned in the exam announcement but continued to exist and underwent significant improvements. A bit frustrated with the weak training they had received upon entering Ibama, the 2002 entrants (now in DAS positions) altered the internal training course for future newcomers. The part devoted to inspection that was previously only a 60-hour module turned into a 380-hour semi-immersive course. The change intended to transmit Ibama's "doctrinal elements" more coherently and to create "esprit de corps," as one respondent put it. Only candidates deemed to have a "minimum profile fit" after a "social investigation" done by Ibama's officials were allowed to participate in this more specific training for inspection. In the end, only those who achieved a certain cut-off grade could be appointed as AAFs. Unselected participants were allocated to areas other than inspection.

In the 2005 exam, the allocation logic of positions changed to a "regionalized system" in order to reduce geographic turnover, especially in the Amazon. Positions now were distributed to all 27 Brazilian states according to the six thematic areas: before the exam, the candidates had to indicate to which state they were applying. In the exam booklet for area 1, three questions referred to "Amazon," two to "deforestation," and three to "inspection." The essay required the candidate to explain, in 30 lines, the phases of a study on the impact of a small hydroelectric power plant on the conservation of terrestrial biodiversity. Both the essay and the questions of specific knowledge focused on licensing, as in the question below, which was contextualized by a text and a map:

Based on the information above, judge the following items.

95 When elaborating the term of reference in an environmental impact study, the licensing agency may include the need to assess the project's impact on conservation of regional biodiversity.

96 The map can be used to predict a future scenario, considering the highway as a new trafficking route and the spatial reordering of the traffic chain, with the emergence of new harvesting sites.

97 Concerning landscape, the highway articulates new spatial relationships and is a vector of dynamization of environmental impacts, especially deforestation.

99 If the undertaking tampered with cartographic data to favor a projection of desirable scenarios and trends, once the license was granted the licensing agency could not suspend it, even if it detected fraud and assessed that this procedure was relevant for the conclusions of the study, in compliance with the provisions of CONAMA Resolution No. 237/1997.

Interviewees noticed no significant difference between the profile of the 2002 cohort and the 2005 cohort, except for a reduction in former UNDP consultants. The second batch of approved candidates would have, thus, even less experience than the first, a characteristic that

was not framed as negative. Of all the Ibama servants interviewed, four had entered the agency in the 2005 exam. When asked about the motivations that led them to apply for the career of environmental analyst, three alluded to family influences (childhood in a rural setting, uprising in an Amazonian extractivist community, involvement of older siblings with social movements for land rights) that nurtured in them a particular connection with nature. Unlike the others, the fourth interviewee did not attribute his motivation for working in Ibama to family experiences; his sensitivity to environmental protection and the desire to engage with it professionally was rather mediated by photojournalistic works about the Amazon. One of them also referred to the momentum generated by the 1992 UNCED as a factor that contributed to the decision to enter Ibama.

c) The 2009 exam

The third examination was held in 2009, when 225 new positions were offered. Already signaling a process of internal specialization, this announcement subdivided area 1 into 1.1 (licensing and audit) and 1.2 (regulation, control and inspection). The regional system for the allocation of positions was maintained. The remuneration increased to BRL 4,115.37. The booklet for area 1.2 included seven questions with references to the word “Amazon,” six to “deforestation”, and five to “inspection.” Besides the increased frequency of deforestation in the questions of specific knowledge, it is clear that the exam’s approach to the topic became, on the one hand, more focused on inspection instruments and tactics, and, on the other hand, politically oriented more to the South region. Consider the question below, which was preceded by statements on the Amazon’s geopolitical relevance made by the scholar Bertha Becker and colonel Paulo Esteves, at the time the spokesperson of Sivam (Sistema de Vigilância da Amazônia), a military project allegedly aimed at defending Brazilian sovereignty in the region:

Having as reference the text above and based on public policies formulated for the Amazon, judge the items below.

81 The presence of the State in the Amazon can be more effective through better instrumentalization, supported by digital cartography and remote sensing, to integrate deforestation monitoring systems and approval of forest management plans.

82 Harvesting managed timber means cutting, at a single time, trees as small as 10 cm in diameter and setting up multiple trails for dragging logs, an activity that does not require planning.

83 From a geopolitical point of view, the Amazon should be thought of on a South American scale, being paramount the formulation of joint development strategies between the countries of the region.

84 Despite holding 63.7% of the total Amazon area, Brazil should recognize and take into consideration its fragile position in some aspects in relation to the other countries of the Amazon region.

85 The presence of the State in the Amazon region can materialize, for example, through the identification of the origin of energy supply of steel mills.

Interviewees did not identify differences in terms of profile between the 2009 cohort and its predecessors, except for one praising mention of the enhanced “digital literacy” of the newcomers, who after entering the agency learned much faster to master satellite tools. Two interviewees entered Ibama through the 2009 exam. One mentioned family ethic lessons about caring for the collective as a factor shaping his understanding of the environment and directing his career choices towards Ibama. The other enriched his answer with a personal experience that illuminates particularly well the emergence of a virtuous circle between recruitment and performance in Ibama. He grew up inside a conservation unit, in a house next to Ibama’s operational base. This allowed him to observe the servants’ activity daily, as well as their impact on the region. Observation gradually gave place to admiration, as he watched the agents working late, in far from optimal conditions, and truly provoking a change in the behavior of economic actors considered powerful in the region.

My house was behind Ibama. At that time, I already found it awesome to see those Ibama people coming, with their cars full of mud, full of game, things they had seized, weapons, fishing nets, hunting traps. I found that job awesome. I saw them arrive at dawn and wondered: are these guys working until now? I found it pretty cool. A job that has no routine, no fixed working hours. I was looking at those who would later become my future colleagues, watching them work, seeing how they moved every day. I started to have great admiration. I used to live inside a national forest and realized how important their work was. People had a real fear of doing something wrong because Ibama could punish them or do something. Even the [large mining] company that operated there had this fear. Then I saw that Ibama’s work had results. And I started to have a great affection for this profession (Interview with an Ibama servant).

One can notice, therefore, that in 2009 a positive feedback effect had already been triggered by Ibama’s first exams. With better technical qualifications and a profile more committed to environmental protection, the servants recruited in the first two exams managed to promote positive changes in the agency’s performance and deliver results that started to be perceived by society. Ibama’s increased prestige, in turn, aroused the interest of more young people to work at the agency. This led next announcements to attract candidates with profiles even more aligned with Ibama and made exams even more competitive, reinforcing the virtuous circle within the agency.

d) The 2013 exam

The next exam occurred during Dilma Rouseff’s term. It was announced at the end of 2012, a few months before the protests of June 2013 plunged the country into a spiral of political instability. The announcement offered 108 positions, whose allocation would now occur according to Ibama’s “need and convenience,” though the candidates still had to define a specific area beforehand. The subdivision of areas also reflected the transfer of Ibama’s

jurisdiction over conservation units to ICMBio, a new agency created in 2007: Area 1.2 became area 2, and areas 4, 5, and 6 were removed from the announcement. Topics on basic knowledge started to include ethics in public service and deeper notions of constitutional and administrative law. The 2013 *edital* offered a fixed remuneration of BRL 5,441.24.

In the booklet for area 2, “Amazon” was mentioned in two questions, “inspection” in six, and “deforestation” in two, plus the essay. The approach to deforestation was now more focused on inspection and it required specific knowledge about Ibama’s geomonitoring tools. To answer the questions correctly and write a satisfactory essay, candidates should have acquaintance with orbital data produced by satellite systems operated by Inpe, to the point of being able to discern advantages and disadvantages in their technical configurations.

The annual deforestation monitoring system of the National Institute for Space Research (INPE) uses images from the LANDSAT satellite to map deforested areas in the Legal Amazon. About this mapping, judge the following items.

106 There would be a greater probability of obtaining more images without cloud cover if images from the RAPIDEYE satellite were used.

107 If TERRA MODIS satellite images were used, monitoring of deforestation in this region would be more detailed.

108 Brazil's official system that annually maps and quantifies burnt areas in the entire national territory is based on the analysis of NOAA AVHRR satellite images.

109 It is possible to distinguish fire severity in satellite images.

110 Knowing that an area with forest fire emits a maximum amount of electromagnetic radiation in the wavelength (λ) of around 3 μm , it is correct to conclude that images obtained in this λ will show areas with fire in light tones.

Write an essay addressing the following: possible additional difficulties presented by the Cerrado biome in relation to the monitoring of deforestation in the Legal Amazon; advantages and disadvantages of using images from the RapidEye satellite, instead of images from the LANDSAT satellite; procedures and steps related to checking the accuracy of the mapping.

Ten years separate the fourth cohort of Ibama’s workers from the first. Yet, the interviewees still could not identify substantial differences in the entrants’ average profile, except for an increased number of graduates in social sciences, a fact framed in a positive light. One respondent who entered the 2013 exam attributed his motivation to join the agency to sensitivity to environmental protection cultivated from childhood memories of weekends spent in the countryside. He also saw working in Ibama as a way to conciliate an interest in academic knowledge with practical action.

In 2014, requirements for career progression of environmental specialists (from technician to analyst and from analyst to manager) were better defined. According to the new criteria, to be promoted an employee must have worked for at least one year in her current career position, scored at least 80% in her last individual performance evaluation, and

participated in a certain amount of training courses.⁶⁶¹ Unlike juridical careers in the Judiciary or Ministério Público, where servants who enter as assistants can never be promoted to judges or prosecutors, Ibama has no “caste system.” Technicians can become analysts for length of service and good performance without having to pass a second exam.

The servants’ interpretation of how recruitment processes from 2002 to 2013 unfolded is undoubtedly one of incrementalism and continuity. A large majority of approved candidates graduated from public universities in courses such as biology, geography, engineering, and agronomy, a small part of them in law.⁶⁶² They stem predominantly from middle and upper-middle classes, having attended private high and elementary schools. There are, however, cases in which approval in Ibama’s exams represented not simply stability and reproduction of family consumption standards but true upward socioeconomic mobility. Especially in the cohorts of 2009 and 2013 one can find sons and daughters of journeymen and seamstresses who had access to public universities due to the democratization of higher education carried out under Lula and Rousseff’s administrations, but who still had to juggle their studies with full-time jobs (as chauffeurs, for example) and had little or no income to pay for preparatory courses.

Comparing the examinations of 2002, 2005, 2009 and 2013, we can observe two major changes in the set of skills measured as meritorious in Ibama’s recruitment process. First, there was a gradual increase in the number of questions addressing deforestation inspection and a progressive shift of focus from licensing to monitoring, which reflects a specialization in Ibama’s capacity and identity. Second, the emphasis given in exams to remote sensing and interpretation of orbital data mirrored the process of technicization of deforestation detection experienced by the agency.⁶⁶³ Both transformations indicate strong responsiveness between Ibama’s recruitment channels and the incremental knowledge built by the agency. In 2012, as

⁶⁶¹ BRAZIL. Law Nº 13.026/2014, article 15.

⁶⁶² Almost 70% of Ibama’s servants by then had a university degree in areas related to the environment, such as biological sciences, agronomy, forestry, geography, and veterinary science. BRAZIL. Ministério da Transparência, Fiscalização e Controladoria Geral da União. Relatório de Avaliação da Execução de Programas de Governo Nº 69. Brasília 2017, p. 62.

⁶⁶³ This change in the recruitment process was also perceived and described by Humberto Navarro, a former Ibama analyst who entered the agency in 2005 and worked as its Chief of Remote Sensing Center from 2006 to 2010. “In 2003, the improvement of the career of environmental analyst strengthened Ibama’s staff. After that, there were three successive examinations to strengthen the licensing and monitoring sectors, which included questions about knowledge in geoprocessing and remote sensing (aiming to select a technical profile with this type of knowledge).” NAVARRO, Humberto. *Lições Aprendidas no Uso do Sensoriamento Remoto e dos Sistemas de Informação Geográficas para a Gestão Pública das Florestas Brasileiras* (Post-Graduate Dissertation) – National School of Public Administration, 2016, p. 24.

we know, deforestation in the Amazon reached the lowest historical rate, 4,571 km², an achievement partially due to the development and application of the doctrine of deterrence by Ibama's servants recruited through public exams.⁶⁶⁴ The table below summarizes the main changes identified in Ibama's recruitment exams organized during the Workers Party administrations.

Table 10: Changes in Ibama's recruitment exams

	2002	2005	2009	2013
Amount of positions initially offered	610	610	225	108
Fixed remuneration	BRL 2,548.00	BRL 2,573.86	BRL 4,115.37	BRL 5,441.24
Allocation system	According to ranking; selected candidates can choose preferred work location	Candidates must indicate work location before the exam	Candidates must indicate work location before the exam	According to Ibama's "need and convenience"; candidates must indicate work location before exam
Essay topic	No essay required	Explain phases of a licensing study on the impact of a hydroelectric plant on terrestrial biodiversity	Dissertate on the negotiated allocation of water according to the national water policy	Explain advantages and disadvantages of determined satellite-based systems to monitor deforestation
Questions on "deforestation"	3	2	6	2
Questions on "Amazon"	7	3	7	2
Questions on "inspection"	2	3	5	6
Approach to deforestation	No particular focus on inspection nor licensing	Focus on licensing	Focus on inspection; Politically more South-oriented	Focus on inspection and satellite-based technology

Source: own elaboration.

⁶⁶⁴ DE MELLO; ARTAXO, *op. cit.* p. 126.

In addition to organizing increasingly responsive public exams, Ibama also strengthened training courses and restructured the career of environmental specialist. These measures were crucial for Ibama's organizational culture to attain "political differentiation," that is, to reach a level at which the preferences and interests of the organization can be distinguishable from the preferences and interests of elected officials.⁶⁶⁵ Exams contained screening mechanisms that increased the chance of cultural fit and attracted analytical-skilled personnel fresh out of good universities. Most importantly, exam-based recruitment allowed Ibama's new hires to originate in networks that had no deep ties to the dominant landowning classes, a paramount feature to forging autonomy and building state capacity.

Internal training courses, in turn, provided extended opportunities for career-based socialization, enabling new employees to be "gradually steeped in a culture of identification with the agency." As contended by Carpenter, this process initiates when "entering officials perform apprenticeship work in a mentoring relationship with their superiors" and "continues in the form of career development, where career tracks and status rewards encourage employees to identify and remain with their agencies."⁶⁶⁶ By refusing to adopt a bureaucratic "caste system" and permitting technicians to be promoted to analysts and analysts to managers, Ibama fostered the formation of a more egalitarian work culture.

Moreover, as productivity bonuses are primarily linked to attendance in academic or professional qualification courses, a system of incentives that privileges personal ambition and self-interest and puts more stress on individual competition as a means to enhance the organization's performance has never put down roots in Ibama. A truly competitive set of requirements for career progression applicable to Ibama never properly existed. Promotion was tied to three requisites, none of them capable of creating an atmosphere of contest among the servants: to have worked for at least one year in the current career position, scored at least 80% in the last individual performance evaluation, and participated in training events.

The lack of clear criteria for productivity bonuses and competition mechanisms within career progression paved the way for the continuance of a system of promotions based primarily on free political appointments for the fulfillment of DAS positions. Even though in 2002 a provision established that Ibama's DAS positions should be preferably fulfilled by in-house servants,⁶⁶⁷ these were often used as bargaining chips to accommodate political allies in quotidian practices of patronage. Indeed, many political appointments during the Workers Party

⁶⁶⁵ CARPENTER, *op. cit.* p. 27.

⁶⁶⁶ CARPENTER, *op.cit.* p. 27.

⁶⁶⁷ BRAZIL. Ibama. Administrative Act ("Portaria") No. 230/2002, article 5°.

administrations prioritized technically qualified personnel from the agency's own cadres, the cases of Teacher and Strategist being exemplary in this regard. Yet, management functions (especially in local offices) never completely ceased to be filled with outsiders who had little or no experience with environmental policies. Senior agents often lost patience and confronted appointees who, even if sometimes well-intentioned, had no previous knowledge about inspection operations. In the words of an interviewee: "this is not an internship, they cannot come here to *learn*. I bludgeoned him [political nominee] until he asked to leave." The nominee in question happened to be the relative of a minister.

Another respondent, who already occupied supervisory positions in a decentralized unit in an Amazonian state, reconstructed the dialogue he had with an outsider nominated to that same position due to political contacts. He acknowledged having had politically appointed bosses who were very engaged with environmental protection. He also added the caveat that many unprepared managers leading offices in remote locations were replaced by in-house servants when the Workers Party took power. Still, he "kept seeing people assuming leadership positions who were not from the area." These nominees would sometimes issue "unusual orders" the servants knew had been commissioned by their political patrons. Or they would just avoid taking responsibility for tasks intrinsic to management functions, hindering the unit's functioning. Even appointees with qualified resumes, such as university professors, did not seem to escape much from the rule:

When this university professor arrived, it was even interesting. I said 'good, he is a university professor.' But in the first dialogue with him, he already turned to me and said: 'no, no, I am here on a political mission.' I said 'but the regional chief [*Superintendente*] accumulates several functions. Besides authorizing expenditure, you have to judge administrative proceedings, you have to judge fines.' 'No, no, no, I didn't come here for that.' Then you see the level of unpreparedness. Despite being a professor with two post-doctorate degrees and I don't know what, you see that he was not there for that. [...] I had excellent bosses who were both political nominees and engaged in environmental issues. But in the end we knew very well that they had some bill to pay for being there, they had something to do for the person who indicated them. (Interview with an Ibama servant).

At least two solutions are envisioned by Ibama's servants to reduce the damage caused by political nominations without technical criteria to DAS positions in the agency. The first is to alter the statute on the rules governing Ibama's personnel, explicitly restricting appointments to in-house servants. The presidential position could be political and filled by externals; all others would have to be occupied by servants previously hired through exams. This bill has even been already drafted by one of the interviewees. The second option in sight is to resume the plan of transforming Ibama into an *agência*, although not an *agência executiva*, as originally conceived during Cardoso's term, but an *agência regulatória*. This idea had gained new

momentum by the time of the interviews in reason of the Coronavirus pandemic. Anvisa, the Brazilian Health Regulatory Agency, enjoyed immense national prestige for having defied Bolsonaro's negationism and authorized the testing and distribution of vaccines in a timely manner for the population. Anvisa could only so openly resist the genocidal orders by Bolsonaro and his Ministers of Health because the organ holds the status of an *agência reguladora*, meaning its directors have a 5-year mandate (while a presidential term is 4 years), and thus are more protected from summary dismissal.⁶⁶⁸

While the long-term strategy to increase Ibama's autonomy vis-à-vis the political domain remains unconcluded, we shall end this section with one important qualification. There is a qualitative difference between the type of interference and patronage practiced in Ibama during the Workers Party (and even Temer's) administrations from the kind of harassment and dismantling carried out during the Bolsonaro government. The eventual appointment of inexperienced regional supervisors to accommodate political allies, although detrimental to the functioning of local offices and repudiated by the servants, never resulted in serious obstructions to the execution of PPCDAm. Middle-level nominees had very limited power to damage the agency's performance. The biggest risk they posed was not a paralysis of enforcement, but a delay in the homologation of fines. Inspection operations were planned following priority criteria collectively defined in annual national meetings; inspection teams were assigned by state coordinators in close cooperation with the general coordinator of inspection in Brasília. As one servant phrased it, until Bolsonaro "the political part" had never seriously interfered in Ibama's "police action."⁶⁶⁹ Under the Workers Party (and Temer, as we will see shortly), offenders who turned out to be supporters of both left-wing and right-wing parties got the same treatment:

We had completely eliminated the political part in police action. There was no political part. If I was working in the field and met a PT guy, he would be handcuffed just like the PSDB guy, just like anyone else. He committed the crime, the law must be obeyed. Catch the guy, send him to the Federal Police so he can answer for the crime, charge him, hold him administratively responsible, do it without any ideology. (Interview with an Ibama servant).

⁶⁶⁸ DI PIETRO, *op. cit.* p. 1080.

⁶⁶⁹ In licensing, in some moments the situation was different. The licensing of the Belo Monte hydroelectric plant in Pará was marked by strong political interference. In 2009, resisting pressure exerted by the federal Executive, Ibama's technicians issued a technical opinion contrary to the licensing of the plant. In 2011, alleging being continuously pressured by the board of directors of Eletronorte, the company that would become the plant's energy distribution, the then president of Ibama, Abelardo Bayma, resigned. One week after his resignation, the newly appointed president of Ibama, Curt Trennepohl, overruled the technical opinion and granted the undertaking a partial environmental licensing. MONTEIRO, Bruno. *A estrutura decisória do Ibama: um acerto ou uma fragilidade da gestão ambiental pública?* (Master Dissertation) – Federal University of Pernambuco, 2014, p. 51; FAINGUELERNT, Maira. The historical trajectory of the Belo Monte hydroelectric plant's environmental licensing process. *Ambiente e Sociedade* 19:2, 2016, pp. 245-264, p. 254.

To sum up, the four public exams organized during the last year of Cardoso's term and the fourteen years of the Workers Party administrations immensely contributed to Ibama's process of capacity-building. Exams not only increased the staff quantitatively (in 2010, the number of inspectors reached the peak of 1,311); they brought into the agency qualified professionals who were not directly bound to the agribusiness by family ties or other forms of affective or economic dependence. Once in positions of power, servants hired through examinations initiated large-scale anti-corruption campaigns, developed mechanisms to improve standardization and reduce judicial annulments, redirected the agency's coercive apparatus towards powerful environmental offenders, inaugurated new ways of relating with the press, invented a doctrine that allows enforcement to cut through the sluggishness of judicial attachment of assets by imposing an immediate financial loss on invaders and accomplices. Without the brainpower injected in Ibama by exam-based recruitment during the first decade of PPCDAm's implementation, one can safely say that the policy's results in what concerns monitoring and control would have been unattainable. Between the autonomy enabled by civil service examinations and interference substantiated in political nominations of unprepared outsiders to positions of local range, the legacy of the Workers Party period certainly stands out for the former.

CHAPTER 9. CRISIS BUT NOT PARALYSIS: AN INTERLUDE BEFORE DISRUPTION (2016-2018)

On 31st August 2016, the impeachment process against Dilma Rousseff was concluded. She was removed from office while retaining her political rights and vice-president Michel Temer (PMDB) took over the government on an interim basis, in a nonsensical procedure that this researcher is not hesitant to name as a coup d'état. Contrary to common sense that Rousseff was ousted for corruption and in response to popular pressure exerted in street protests against the government, charges against her were entirely based on the post facto criminalization of an accounting practice that until then stood as administrative routine. She was accused of violating the Fiscal Responsibility Law (Complementary Law No. 101/2000) for (1) signing three decrees authorizing budget supplementation without consulting Congress and (2) delaying payments from the central Treasury to the state-led Bank of Brazil for policies funded on the government's behalf (notably Plano Safra, which subsidizes rural credit prioritizing small family farmers). The defense argued that supplementary budget decrees had been used by her predecessors and were widely accepted as part of administrative routine. It was only in October 2015 that the Federal Audit Court started to consider the practice reprehensible; this decision could not be applied retroactively. As for the delayed payments, the defense contended they did not depend on the president, but directly on the Treasury. By law, there is no effective participation of the president in any act related to Plano Safra. In fact, there was no single document signed by Rousseff that could link her to the decision to delay payments; she was convicted solely on the *inference* that such a decision could never have been made without the president's knowledge.

Following the analyses by Marcos Nobre, André Singer and Fernando Limongi, one can interpret Rousseff's impeachment not as a process prompted by exogenous, bottom-down factors (popular dissatisfaction and mass demonstrations), but rather as an endogenous reaction of the nucleus of the *pemedebista* condominium against the anti-corruption crusade she launched in the upper echelons of the state.⁶⁷⁰ Rousseff's ethical reforms touched a crucial point already in 2012, with the nomination of Graça Foster to head the state-run oil company Petrobras. Foster, a chemical engineer and the first woman to lead Brazil's largest company,

⁶⁷⁰ NOBRE, Marcos. *Limits of Democracy: from the June 2013 Uprisings in Brazil to the Bolsonaro Government*. London: Springer, 2022; SINGER, André. *O lulismo em crise: um quebra-cabeça do período Dilma (2011-2016)*. São Paulo: Companhia das Letras, 2018; LIMONGI, Fernando. *Operação Impeachment: Dilma Rousseff e o Brasil da Lava-Jato*. Kindle edition. São Paulo: Todavia, 2023.

immediately substituted three directors inherited from the previous administration: Paulo Roberto Costa, Renato Duque, and Jorge Zelada. All of them (plus Nestor Cerveró, also a former president of the company) were later convicted under Operation Lava-Jato for collecting bribes in Petrobras contracts. The overbilling scheme favored both governing parties and a cartel of companies, dating back to Petrobras' founding in 1953.⁶⁷¹

Besides Petrobras, Rousseff fought to take dozens of other state companies and public agencies out of the hands of old political oligarchies, including the Ministries of Agriculture, Cities, and Health, as well as the energy company Eletrobras and its subsidiary Furnas. With each anti-corruption change made by Rousseff, the president of the House of Representatives, Eduardo Cunha, “gathered supporters in Congress for the revenge he had slowly prepared.”⁶⁷² The system of alliances previously built by Lula with *pemedebista* leaders crumbled, the government's parliamentary base collapsed, and the presidential coalition imploded, resulting in Rousseff's exit and the PMDB's arrival in power with Temer.

Our intention with this brief reference to the 2016 impeachment is not to cover all determinant factors and consequences of that event, but solely to provide a basis from which to interpret the changes made in socioenvironmental policies and Ibama in the transition from the Workers Party to Temer. From this moment on, the analytical focus will gradually shift from capacity-building toward dismantling. One needs, however, to be very cautious when employing the concept of dismantling, by seeking to reduce its normative connotation when differentiating it from other forms of policy change.

The term dismantling began to be used to criticize governmental decisions on environmental policy in Brazil as early as 2000, when Ibama's competence over water policy was transferred to the newly created National Water Agency. It was also employed in 2003 to condemn the transfer of fishery policy from Ibama to the new Ministry of Fishery and again in 2006, when the area of public forest concessions left Ibama to the new Brazilian Forest Service. The expression was also in common usage during 2007, when Minister Marina Silva dismembered Ibama's jurisdiction over federal conservation units to create a second environmental agency, the Chico Mendes Institute for Biodiversity Conservation (ICMbio). In 2011, with the decentralization of licensing and inspecting to subnational environmental agencies by Complementary Law 140, once more was the watchword back on the lips of critics.

Previously to and throughout the entire period of the Workers Party administrations, therefore, the term “dismantling” was abundantly used by environmental civil servants to

⁶⁷¹ SINGER, *op. cit.* p. 251.

⁶⁷² SINGER, *op. cit.* p. 189.

denounce what they then understood as a traumatic “political option” for the “disruption of the Brazilian environmental policy itself,”⁶⁷³ an “authoritarian ‘top down’ realpolitik marked by the primacy of business interests.”⁶⁷⁴ The decentralization of Ibama’s competences to ICMBio, subnational environmental agencies, the National Water Agency, the Ministry of Fishery and the Brazilian Forest Service was negatively regarded by some servants as a “loss of power”, “loss of respect,” “weakening,” even as an intentional strategy aimed at boycotting the National Environmental Policy. Those who opposed the fragmentation of tasks into different organs thought these changes were directly motivated by the government’s developmentalist approach (materialized in the Program for Growth Acceleration, a package of incentives to stimulate socio-economic growth implemented by the federal executive). Some servants⁶⁷⁵ interpreted the dismemberment of Ibama’s competences as a retaliation against the agency’s strong environmentalist stance, seen as standing in the way of growth programs. They suspected the new agencies would not protect the environment with the same commitment as Ibama, since they had been forged out of “developmental interests.”⁶⁷⁶ In the view of Maria Gouveia, a former servant from Ibama and SEMA who denounced the fragmentation of environmental policies in her doctoral dissertation, removing competencies from Ibama was tantamount to mutilating “the environment” itself.⁶⁷⁷

With the benefit of hindsight and under the comparative light of the Temer and Bolsonaro governments, the decentralization of Ibama’s competences has been reinterpreted by many (though not all) of its servants as a right decision. Most academic assessments rather evaluate the fragmentation of attributions during the Workers Party governments as a sign of specialization and strengthening of environmental institutions.⁶⁷⁸ Other measures taken under Rousseff’s presidency, however, have been equally criticized as dismantling by civil servants and scholars. The periodicization proposed by Hochstetler, for instance, sets the initial

⁶⁷³ GOUVEIA, *op. cit.* p. 52.

⁶⁷⁴ ZELLHUBER, Andrea. Environmental Policy in Brazil. Tensions Between Conservation and the Ideology of Growth. In: DE LA FONTAINE, Dana; STEHNKEN, Thomas (eds.) *The Political System of Brazil*. London: Springer, 2016, pp. 329-350.

⁶⁷⁵ Other servants saw the reduction of Ibama’s competences under a positive light. The previous concentration of responsibilities in Ibama was “unmeasured” and overly intervening in “strictly local matters.” Fragmentation was welcomed to provide “more focus” and improve “quality and efficacy” in monitoring illegal deforestation. In a decentralized regime, Ibama would have to assist subnational environmental agencies during a transition. After that adaptive period, it would be less burdened and could “focus on its primary competences,” being able to “perform a more relevant role in the formulation of public policies aimed at environmental control and protection.” SCHMITT; SCARDUA, *op. cit.* p. 1137.

⁶⁷⁶ GOUVEIA, *op. cit.* p. 66-67; 91; 95; 99; 101; 85.

⁶⁷⁷ GOUVEIA, *op. cit.* p. 88-89.

⁶⁷⁸ DE MOURA, Adriana Maria Magalhães (org.). *Trajetória da política ambiental federal no Brasil*. In: *Governança ambiental no Brasil: instituições, atores e políticas públicas*. Brasília: Ipea, 2016.

timeframe of the institutional and political disarray of Brazilian environmental institutions in 2011, as “Presidents Rousseff (2011-2016) and Temer (2016-2018) had already allowed attrition of many climate institutions through declining budgets and political commitment.”⁶⁷⁹ Besides budget reduction, the pressure exerted by the federal executive on Ibama to approve the licensing request of the hydroelectric plant Belo Monte in 2011 and the transfer of PPCDAm’s coordination from the Civil House of the Presidency to the Minister of the Environment in 2013 could be interpreted as evidence that environmental policies had been weakened since Rousseff’s term. The revision of the Forest Code in 2012, an initiative of the ruralist caucus carried out despite Rousseff’s veto efforts, has also been characterized as “symbolic dismantling.”⁶⁸⁰

If there was already dissatisfaction with some decisions made by Rousseff in the environmental area, measures taken by Temer were much more intensely denounced as dismantling by scholars, public servants, and civil society. He extinguished the Ministry of Agricultural Development, among other agencies and ministries; flexibilized labor regulation; weakened Funai’s capacity to demarcate indigenous lands; and slowed down even more the creation of conservation units. Temer also forgave BRL 47.4 billion in debt and renegotiated another BRL 59.5 billion to benefit companies and large farmers, while establishing a growth limit for public expenditures indexed to the previous year’s inflation that hit with more intensity health and education policies and imposing a drastic budget cut for rural development policies. Territorial development programs had their resources reduced to close to zero and were simply phased out, “including those of technical assistance and rural extension, food acquisition from family farming, expropriation of estates for agrarian reform and creation of new rural settlements, education of the countryside, recognition and indemnification of quilombola territories).”⁶⁸¹ Moreover, as we saw, Temer introduced a set of modifications in the Terra Legal Program that facilitated large-scale privatization of public lands, such as extending the cutoff date from December 2004 to July 2008; increasing the maximum property size from 1,500 to 2,500 hectares; allowing proof of compliance with the Forest Code to be merely self-declaratory through CAR; preventing noncompliance with the Forest Code to result in title cancellation as

⁶⁷⁹ HOCHSTETLER, Kathryn. Climate institutions in Brazil: three decades of building and dismantling climate capacity. *Environmental Politics*, 30(51), 2021, pp. 549-570.

⁶⁸⁰ IRVING, Marta de Azevedo *et al.* A agenda da biodiversidade em risco? Decodificando tendências de políticas públicas de proteção da natureza no Brasil. In: GOMIDE, Alexandre; DE SÁ E SILVA, Michelle Moraes; LEOPOLDI, Maria Antonieta (eds.). *Desmonte e reconfiguração de políticas públicas* (2016-2022). Brasília: Ipea, 2023, pp. 185-215, p. 203; FONSECA ET AL., *op. cit.* p. 135.

⁶⁸¹ ESCHER, Fabiano. Class Dynamics of Rural Transformation in Brazil: A Critical Assessment of the Current Agrarian Debate. *Agrarian South: Journal of Political Economy*, 9(2), 2020, pp. 144–170, p. 160.

long as the landowner signs a conduct adjustment agreement, and expanding regularization rules that before were specifically valid for the Amazon for the entire Brazilian territory.⁶⁸²

The many setbacks that occurred in the Temer administration leave no room for doubt: the net balance of his presidency benefited the ruralist coalition and harmed the environment, indigenous populations, traditional communities, urban lower classes, and other marginalized groups. Yet, there was one (even if limited) positive aspect of the Temer administration that must be highlighted. Differently from his successor, Temer did not nominate inexperienced anti-environmentalists to lead the Ministry of the Environment. He appointed as minister José Sarney Filho (known as Zequinha), who had already occupied this position in Cardoso's second presidential term and since 2005 was affiliated with Marina Silva's Green Party [Partido Verde – PV]. Zequinha is a member of the Sarney family, a traditional political clan based in Maranhão. His father José Sarney was the president of Brazil from 1985 to 1990 and his sister Roseana Sarney was the governor of Maranhão for 16 nonconsecutive years. The choice for him undoubtedly met the *pemedebista* criteria and was palatable to agribusiness. On the other hand, Sarney Filho indeed had a trajectory of environmental activism to showcase, and his nomination was supported by many civil society organizations. One of the opportunities seized by the minister to demonstrate his commitment was the nomination of Suely de Araújo as president of Ibama. Araújo had worked for almost 30 years as a legislative consultant in Congress, a tenured position she entered through civil service exams, and is widely respected as a renowned expert in environmental policy. Some of the Ibama agents interviewed readily praised her as the best president under whom they served the institution.

Under the leadership of a well-intended and competent expert, Ibama was partially spared from the widespread slowdown of socioenvironmental policies imposed by Temer's austerity model. Despite successive budget cuts and depletion of its workforce, Ibama continued to plan and execute anti-deforestation operations in the Amazon on a regular basis. There was no paralysis in Ibama's core competencies; on the contrary, it was in this period that the agency went through major innovations in its *modus operandi*: the destruction of equipment caught being used in environmental wrongdoings during inspections began to be published in the media to amplify deterrence; alternative funding from the Amazon Fund was secured to finance the lease of trucks and helicopters used in inspections; a new mode of enforcement, the indirect conversion of fines, was created; the social communication department was further improved; and operations started targeting financial institutions and upstream/downstream

⁶⁸² CUNHA, *op. cit.* p. 125-126.

supply chain actors involved in deforestation. Let us see those and other transformations undergone by Ibama from June 2016 to December 2018 in detail.

9.1 Authority: shared supply chain responsibility and indirect conversion of fines

As we saw, PPCDAM's architects knew that on-site inspections would not be enough to sustain low deforestation rates in the long term; intelligence was also of utmost importance to track the funding networks fueling deforestation. Besides fieldwork to physically destroy the logistics of deforestation and intel work to identify its suppliers, buyers, and financiers, PPCDAM's formulators also considered it crucial to introduce in the Brazilian legal framework a rule extending the liability for environmental crime to other actors involved in it. Accordingly, they drafted and pushed for Decree No. 6,514/2008, which established the legal basis for the shared responsibility of supply chain actors for illegal deforestation. The decree transformed "acquiring, intermediating, transporting, or commercializing any product or sub-product of animal or vegetal origin produced in an embargoed area" into an infraction equally subjected to fine, embargo, seizure, destruction, and suspension. Equipped with adequate organizational and legal tools, Ibama started, way back in the late 2000s, to adopt a supply chain approach when planning its operations.

Particularly important in that initial moment was Operation New Paths, which targeted companies that economically exploited genetic heritage or associated traditional knowledge without authorization, a practice colloquially referred to as biopiracy. As one interviewee explained, fighting biopiracy also contributes to preventing deforestation: individuals today involved with forest fires and timber logging could alternatively work in initiatives that add value to biodiversity. For this change to happen, however, companies that profit from genetic heritage and associated traditional knowledge cannot operate in the shadows, in disconformity with the UN Convention on Biological Diversity (internalized into Brazilian law through Decree No. 2,519/1998). So that is possible to monitor whether the benefits arising out of the utilization of genetic resources are being fairly and equitably shared with the country of origin and knowledge-providing traditional communities, companies must request authorization from the Genetic Heritage Management Council, an organ created in 2001 within the scope of the Ministry of the Environment to deal with the matter.

In the first phase of Operation New Paths, launched in 2010, Ibama fined approximately 100 companies, universities and biotechnology centers that carried out research and developed products based on elements of Brazilian biodiversity and knowledge of

traditional communities without proper authorization. The fines applied were low, since most of the companies and institutions sought to regularize their situation afterward. In its second phase one year later, Ibama notified 108 companies in the pharmaceutical, food, agriculture, cosmetics and perfumery sectors, the majority of which were multinationals operating in Brazil. Sanctions were now heavier, as they involved more serious conduct, such as sending genetic heritage abroad. At least 35 companies were sanctioned, totaling BRL 140 million in proposed fines. New Paths was considered a watershed in intelligence inspection for having applied all the postulates of the doctrine of deterrence against large national and multinational companies. The operation had such a strong repercussion that it accelerated and informed the approval of Law No. 3,123/2015, which regulated in more detail the procedures for accessing biological diversity and associated traditional knowledge. Before New Paths, as one agent recalled, Ibama's approach to biopiracy was precarious and random, mainly depending on catching by chance isolated individuals trying to board with plant seeds or animal parts at airports.

In 2004 we caught a German guy at the airport carrying spiders. Ibama kind of revolved around this: being lucky to catch someone at the airport carrying an animal. [...] That was where we were. But there are companies obtaining patents, in Brazil and abroad, resulting from biodiversity. The issue is much more serious. Then we did an operation [...] [targeting] about 100 companies at the same time, including Natura, which was fined BRL 20 million, because they had accessed genetic heritage illegally. [...] Then we did New Paths II, which caught foreign companies and international laboratories. Also with the same logic of deterrence. There is no point in standing at the airport trying to get the German and Japanese. [We have to] go to the big companies, because they are the big ones. Why was it important to do this operation? Because Brazilian law requires that any use of genetic information from biodiversity must share benefits and [support] socio-environmental projects. There was no return for the country. If it works well, this resource is used in socio-environmental projects in threatened regions. Today the guy is going to work with deforestation. If there is an initial capital coming from another front, in this case, modern biotechnology, he doesn't need to sell himself to deforestation in slave labor conditions. It is a public policy that, to function properly, needed Ibama to come in against the companies, in the logic of dissuasion as well. This was the strategy. It was like this for international animal traffic, it was like this for everything that we did. [...] Just to give you an idea, Operation New Paths I and II on biopiracy also resulted in a legal change. It became Law No. 3,123/2015. (Interview with an Ibama servant).

Before 2016, therefore, Ibama had already acknowledged and put into practice what could be tentatively called “principle of shared administrative liability across the supply chain for environmental offenses.” Nonetheless, it was from 2016 onward that the agency greatly intensified operations targeting financial institutions and upstream/downstream supply chain actors. If the initial years of the doctrine of deterrence were primarily dedicated to building its core elements with progressive scalability and convincing the Judiciary to endorse Ibama's position on the issue of equipment destruction, in a second moment it was possible for supply

chain approaches to gain more centrality. Three operations carried out in this period stand out in relevance: Cold Meat, Shoyo, and Mercury HG2.

Operation Cold Meat applied BRL 294 million in fines and embargoed 15 slaughterhouses for directly or indirectly buying almost 60,000 heads of cattle from embargoed farms in Pará. Two of the fined slaughterhouses belonged to the JBS group. Operation Shoyo was jointly conducted by Ibama and Ministério Público in 2016, with the aim of curbing illegal deforestation in Matopiba (a region composed of the states of Maranhão, Tocantins, Piauí, and Bahia). In its first phase, Ibama fined the bank Santander BRL 47,5 million for financing the planting of 95,000 sacks of corn in an embargoed area of 572 hectares in Mato Grosso. In its second phase, Ibama issued BRL 106 million in fines against companies and individuals that planted, traded, or financed soybeans in embargoed areas. Among the companies fined were the agribusiness multinationals Cargill and Bunge. Operation Mercury HG2 was launched by Ibama in 2018. It seized more than 2 tons of mercury destined for illegal mining, fined those involved in BRL 1.5 million, and permanently suspended the chemical company Quimidrol, responsible for 90% of all mercury imports to Brazil. The product was imported from Turkey, entered Brazil through a port in Santa Catarina, was sold on paper to a shell company in Mato Grosso, and ended up being used by illegal miners in the Amazon.

Besides advancing Operations Cold Meat, Shoyo, and Mercury HG2, which relied on intel work and extensive data analysis to track the custody chain of commodities contaminated with illegal deforestation, Ibama started to automatize the application of fines through the use of satellite imagery. In 2016, the agency launched Operation Remote Control, which issued fines based on an automatized process that cross-checked orbital data with georeferenced information from the list of embargoed areas and cost only around one-sixth of an ostensive operation. Outputs of Operation Remote Control were shared with Ministério Público, which used the data to file public civil actions for damage recovery. By November 2017, Ibama had mapped 1,262 deforestation polygons totaling 176,761 hectares and identified 1,155 people or companies related to these areas. Ministério Público had filed 757 public civil actions, demanding in total BRL 1.5 billion in compensation and the recuperation of 95,670 hectares of degraded forest. Ibama and ICMBio were co-plaintiffs in the lawsuits.

Operation Remote Control was discontinued and succeeded by Operation Panoptic in 2018. The latter had a more preventive approach: it aimed at avoiding deforestation by sending monitoring alerts to landowners in risk areas a few weeks before the dry season, when fires and logging typically occur. In July 2018, Ibama sent 25,000 alerts to landowners in 59 municipalities in eight Amazonian states. Alerts instructed landowners about the need to request

prior authorization from the state environmental agency before any suppression of vegetation, as well as conveyed information about the administrative, civil and criminal consequences of illegal deforestation.

Four interviewees contributed insights on the meaning of Operations Cold Meat, Shoyo, Mercury HG2, Remote Control, and Panoptic to the broader anti-deforestation strategy adopted by Ibama under PPCDAm. Their statements emphasized the limitations of physical inspections and the good results achieved when Ibama applied the principles of the doctrine of deterrence to induce behavior from banks, traders, slaughterhouses, and other players involved in supply chains that fuel deforestation.

The soul of the supply chain tracking operations, which are the most important, is [the Scholar]. He is super against thinking that you are going to solve everything by going into the field and fining. For him, you would do almost everything based on strategic operations in which you track the bank that finances, everyone who is involved until the buyer, and then you fine everyone. Operation Shoyo for soy and Operation Cold Meat for beef, that's all [Scholar's] idea. I agree with him that they are the most important operations. I remember in 2017 we fined Santander 48 million because it had financed soybeans in an embargoed area. It was the best fine of the year. After this fine, every bank went after Ibama to understand everything. And it was not only in the Amazon, all the banks were worried about getting fined. It is not that 48 million means anything to Santander, but it does mean something in terms of credibility. I think it was the best fine issued during the time I was there. The areas embargoed by Ibama are on the internet since they existed, since the internet existed. Badly organized, difficult to find, today it is better, but they have always been there. So, the bank doesn't look because it doesn't want to. That is the question. You just have to log into the computer and see if you are financing. Because you are financing crime when you finance embargoed soybeans. (Interview with a former Ibama servant).

What is revolutionary is the way Ibama was going about tracking the production chains. Operation Shoyo, you got Santander, Operation Shoyo 2, you got Cargill, Operation Cold Meat, you got JBS. We have to get whoever is financing the deforestation of the Amazon. Not the poor guy at the bottom. From then on, when [deforestation] is prevented from being financed, the guy will look for another alternative. Because nobody will be financing his tractor, nobody will be financing his soy plantation. Nobody will be buying that either. If you do this, you don't need anything else. Of course there is going to be an occasional combat here and there. Physical command and control, people in the field, will of course never end completely. But you won't need it that [much]. [...] Command and control was efficient, but it is very difficult, so much so that the combat against deforestation reached a level of 5000 square kilometers and did not go down. Another strategy is needed, which Ibama was doing and was reverted with Bolsonaro: to get to the productive chains. If you take [the Teacher's] operations, he is making a transition process in Ibama to get out of this thing of field inspectors' command, this bullshit that says, 'ah, there are so many inspectors per hectare.' It doesn't matter, you can do it by remote control. You don't need a traffic inspector to fine your car if you run the red light, it is radar. There is nobody on the street. All fines had to be done this way and Bolsonaro obviously paralyzed it. This work of Ibama was just beginning. Along with Operation Shoyo, catching the big players responsible for filling the Amazon with commodities to generate profit out there. Ibama was on this path. (Interview with an Ibama servant).

We can't just stand on the ground that things are going to be solved; [just] go to a plot of land and take 1000 heads off the guy. There are also other important aspects that have been developed over time, which are the production chains. The big structure

that will deal with all these cattle, with meat export, which company is this? How are we going to link this company, prove that it bought from deforestation? It is intelligence activity, an important data analysis activity. Where is this gold going? Gold mining destroys everything, human health, a tragedy. There is mercury [at one end] and at the other end, there is gold. We have already managed to do a good job with mercury. To give you an idea, in 2018, a single company was responsible for 90% of all mercury imported from Brazil for retail. One single company. The other four bought mercury abroad, because Brazil has no mercury mines; all Brazilian mercury is imported. There is no production, here there is only lamp recycling, very little. Mercury is imported. It is imported by companies that use mercury in their production process, cars, light bulbs. And one single company held 90% of the retail. That is a company from Santa Catarina. It imported mercury, nine tons over five years, all for a ghost company in Mato Grosso. With data analysis, we were able to prove that this company was responsible for this mercury. And we attacked it. When we attacked it, it was blocked. It held 90% of the national mercury; it zeroed out this volume. Now there is another operation, but I cannot go into details. When it was zeroed out, mercury again started to come from smuggling. Legal mercury coming from imports did not exist in the volume that it did. Why is this important? Because now we are going to the other end of the rope. Where is this gold going? We already know that there are Italian companies receiving gold. Where does this gold go? We have to take it here. How is the Central Bank's structure of gold control in Brazil? In my opinion, it is very critical. It is not fully developed. Gold is understood as a market value, as a financial asset, not as matter, not as a mineral. So, the guy comes in with gold as a financial asset and all the explanations he gives are accepted, although he came from a region of illegal mining. So this crossing is what, in my opinion, will have to be done. We know mining is a matter of debate, especially in the Planalto and in the National Congress. A strong, serious debate. But I think soon there will be a policy for the selection of gold in control. We are already doing it for mercury mining. All right, it is important to destroy the machinery worth BRL 1 million inside a mine. But it doesn't solve the problem, because gold is a business in great demand. So you close the doors to mercury, because without mercury you can't process gold. You fight smuggling and at the same time you control the entry of gold into the financial structures of banks, the Central Bank, and then you create an impasse. This is, in my opinion, what should be done. (Interview with an Ibama servant).

We have developed a remote fine system. With these 56-meter tools, you can do remote inspections. Then Operation Remote Control started. It [used data on] deforestation, CAR, the guy's name. There you have materiality, authorship, infraction notices, embargoes, and so on. Then Ministério Público came in with the project *Amazônia Protege* and also started to file public lawsuits for damage recovery. Then we closed in and created another interesting operation, an important psychological operation for intelligence. It was Operation Panoptic. We identified areas where deforestation was potentially going to be deforested. Then we would get the data from the CAR, the guy's email, CPF, you name it. Then they would send the guy an e-mail before the deforestation season, saying that he was under environmental satellite monitoring from Ibama and telling him what the law was, what he could and couldn't do, that he had to look for an [environmental] agency, and what the penalties would be if he deforested. I would send 25,000 emails to the areas. I kept imagining the guys at the window, 'these guys are watching me, how am I going to do my business here?' Psychological operation. This is called intelligent and technological action, right? Then deforestation went backward. Criminal liability, cutting off the right to bank loans for those who were doing illegal deforestation. (Interview with an Ibama servant).

Along with the intensification of operations targeting suppliers, buyers, and financiers of deforestation and the automatization of fines with datasets and satellite imagery, three other institutional improvements that occurred during Araújo's presidency in Ibama deserve mention. The first was an update of the Internal Manual of Inspection in August 2016. This effort of

registration and documentation was not something trivial in the history of the organization, but was of utmost importance to preserve, consolidate, and transmit part of the institutional learning accumulated by Ibama over the third phase of PPCDAm.

The new version of the manual stressed even more the centrality of the doctrine of deterrence to Ibama's inspection activities. It defined deterrence as "the expected change in the individual's behavior for fear of being punished," positing it as "the main way to promote change in social behavior and prevent the practice of environmental offenses."⁶⁸³ All the core elements of the doctrine of deterrence we discussed above (prioritization of high visibility targets, economic incapacitation of offenders, combination of field and intel work, standardization of procedures, strategic social communication) were transformed into "general guidelines" of environmental inspection. The incorporation of those doctrinal elements into Ibama's *modus operandi* was so explicit that it deserves to be quoted directly:

Art. 7º. The general guidelines for the execution of environmental inspections are:
[...]
IV - To seek to obtain the greatest possible effectiveness with the application of administrative sanctions;
V- To develop environmental inspection strategies that make it possible to reduce or prevent environmental offenses;
VI - To undertake measures aimed at economically incapacitating violators for the practice of environmental illicit acts;
VII - To develop strategies that minimize the economic advantage obtained by the offenders as a result of the practice of environmental offenses; [...]
X - To employ the activity of intelligence as a strategic element for the production of knowledge and the achievement of relevant results;
XI - To establish standard procedures for environmental inspection;
XII - To strive for technical excellence in environmental inspection;
XIII - To develop functional skills and seek continuous technical qualification for federal environmental agents and other civil servants related to environmental inspection;
XVIII - To employ social communication strategies to increase society's perception of the role of environmental inspection to promote the deterrence of environmental crimes and Ibama's positive image."⁶⁸⁴

Furthermore, the manual made explicit that the diagnosis of environmental offenses (DDA) was part of the national annual planning meetings (PNAPAs). It also regulated more thoroughly the possibility of creating specialized groups (such as the GEF) within the General Coordination of Inspection. Inspection actions attributed to those groups needed to be "of a special nature" or particularly "relevant or strategic for the institution." The list of principles guiding environmental inspection, ultimately oriented to "maximize deterrent capacity and obtain greater effectiveness in environmental inspection," now included the principles of "information, severity, certainty, speed and perception of punishments." For the first time, the

⁶⁸³BRAZIL. Ibama. Administrative Act ("Portaria") No. 24/2016, article 5º.

⁶⁸⁴ BRAZIL. Ibama. Administrative Act ("Portaria") No. 24/2016, article 7º.

manual distinguished between strategic, tactical, and operational planning. Strategic planning should be elaborated in consonance with Ibama's general goals; tactical planning was the one established in PNAPA, and operational planning referred to the set of guidelines provided for in operational plans.⁶⁸⁵

"Progressive use of force" was divided into six levels, which should be proportional to the level of resistance offered by the individual: physical presence, verbalization, contact or hands-free control, submission techniques, non-lethal defensive tactics and lethal force. Holding a professional gun license became mandatory for all AAFs who participate in inspection courses. The manual established more clearly that Ibama was obliged to provide AAFs with training in weaponry, shooting, and other means of defense. It reinforced the mandatory use of uniforms, which was deemed important to distinguish AAFs from inspected individuals, enable greater operational security, demonstrate the agents' physical presence, and contribute to the formation of a positive institutional image.⁶⁸⁶

Requirements for AAFs to be promoted as operational coordinators (the highest hierarchical rank in an inspection operation) were further detailed. As a rule, this post must be filled by AAFs who demonstrate a "profile compatible with the complexity of the operation" and entered Ibama's workforce as environmental analysts (a position that requires a university degree). This second condition limited the promotion of AAFs who entered as technicians (a position that requires solely a high school certificate). In other words, only servants with university diplomas would be considered eligible for commanding inspection operations. The manual, however, provided for an exception that prevented the solidification of a caste system. If technicians demonstrate to have a suitable profile for leading operations, they could be, "in exceptional and justified cases," assigned as operational coordinators.⁶⁸⁷

In addition, the new manual emphasized even more the importance of social communication with the press, qualifying it as a "strategic element for promoting deterrence and preventing environmental crimes." All operational plans should foresee means to reach the press. AAFs who act as Ibama's spokespeople should "prepare themselves in advance, whenever possible, to transmit the communication; expose the information in line with the institutional communication strategy; make a clear and objective presentation, using formal and

⁶⁸⁵ BRAZIL. Ibama. Administrative Act ("Portaria") No. 24/2016.

⁶⁸⁶ BRAZIL. Ibama. Administrative Act ("Portaria") No. 24/2016.

⁶⁸⁷ BRAZIL. Ibama. Administrative Act ("Portaria") No. 24/2016.

appropriate language to the target audience; wear uniform and have good appearance; and do not expose firearms carelessly or excessively.”⁶⁸⁸

With the purpose of “rewarding and stimulating the internal and external public to recognize personal merits,” the updated version of the manual instituted three honors: the “Medal of Environmental Merit,” awarded to citizens who “significantly contributed to Ibama's mission”; the “Medal of Functional Merit,” awarded to AAFs for distinguished merit in environmental inspection; and the “Honorable Mention of Functional Merit,” awarded to any Ibama servant for distinguished merit in public service office. The manual also created, only within the organization's internal scope, the “Day of the Professional of Environmental Inspection,” to be annually celebrated on December 12 by “paying special tributes to those who stood out in their activities during the year.” The manual explains that December 12 was chosen because on this day, in the year 1605, King Dom Felipe signed the *Regimento do Pau-Brasil*, Brazil's “first forest protection law, and therefore [the first] environmental protection law for the Brazilian territory.”⁶⁸⁹

A second change that occurred during Araújo's presidency in Ibama was the enactment of an internal ordinance (Normative Instruction No. 3/2018) that reduced even more the agents' discretion in what concerns the destruction of equipment. Until then, destruction was regulated at intra-agency level by Normative Instruction No. 19/2014.⁶⁹⁰ Under this ordinance, there was no need for ex-ante authorization: all it required was the signing of a term of destruction post facto by two Ibama servants (at least one of them had to be an AAF). The term should contain a valuation of the destroyed asset and justify the need for the measure, whose legality had to be later confirmed by the judging authority in the scope of the administrative sanctioning procedure. The new ordinance issued in 2018 made it mandatory that destruction be preceded by prior authorization of the general coordinator of inspection. The authorization had to be based on a risk analysis that assesses risks to agents, vehicles, and facilities, as well as negative repercussions on the institutional image. The risk analysis should be incorporated into the operational plan. In exceptional cases, the need for prior authorization could be waived.

⁶⁸⁸ BRAZIL. Ibama. Administrative Act (“Portaria”) No. 24/2016, articles 146 to 149.

⁶⁸⁹ BRAZIL. Ibama. Administrative Act (“Portaria”) No. 24/2016, article 152. While the intention of celebrating the Day of the Professional of Environmental Inspection is praiseworthy, one cannot help noticing that such an embarrassing and colonial homage to the Portuguese Crown is out of place. The future that Ibama is trying to build suits best a date that honors indigenous leaders who stood out in the past or are making a difference in the present to protect the territories, such as Raoni Metuktire, Davi Kopenawa, Ailton Krenak, among others.

⁶⁹⁰ Normative Instruction No. 19/2014 was based on Legal Opinion No. 19/2010 of the Specialized Federal Attorney in Ibama (Orientação Jurídica Normativa nº 19/2010 da Procuradoria Federal Especializada junto ao Ibama), which laid the foundations for the application of seizure and destruction measures. The non-binding opinion restricted the possibility of destruction to when the object could not be used in lawful activities.

Moreover, the new ordinance made explicit that destruction should be carried out primarily in conservation units or indigenous lands or when it was impossible to identify the responsible individuals. An agent who entered Ibama through the 2005 exam claimed authorship for drafting the new ordinance:

When I entered Ibama, nobody destroyed machinery. It was not common; it was not in the culture of the agency to destroy big assets. Destroying a boat, destroying a chainsaw, a normal camp, yes, that was quite common. But when it came to specific assets, a truck inside a conservation unit, it was very rare to see it destroyed. [...] The first regulation that Ibama issued on the destruction of goods, if I am not mistaken, was done by me. I drafted the normative instruction that gave a little more security for field agents to do it. [...] Until then we had a memorandum, something very fragile from a legal point of view, which said that when someone came across this situation in the field, in case of necessity, I don't know what, they could destroy and then report it, as long as they filled out the destruction form. When an operation might need destruction, it had to be requested in advance to the Coordination of Inspection, the coordination had to authorize it. We established a rule preventing the direct discretionary action of the environmental agent. This is rare; this is not done. But because it is something somewhat traumatic for society, destroying a BRL 1 million machine, for example, a BRL 1 million dredge. [Besides] the impact this could cause in case of a reverse action of someone trying to get compensation for it. Then the federal government would pay, the state would pay, and the colleague might suffer sanctions for having to pay for it. An organization was created so that there would be this little step of authorization. This was well-grounded; we managed to do something more formalized and organized. With this new regulation the tool became a little more institutionalized. (Interview with an Ibama servant).

The objective of Normative Instruction No. 3/2018, therefore, was to add an extra layer of protection to the rangers. If someone wanted to challenge the application of a destruction measure, they would not only have to call into question the post facto form filled by two field agents, but also contest the prior risk analysis done by the general coordinator of inspection in Brasília. Prior authorization was not a device conceived to obstruct destruction; on the contrary, it sought to enhance the instrument by compressing the servants' range of discretion and formalizing, institutionalizing its method a bit further. The strategy seems to have worked: although there is strong political discourse against destruction among ruralist circles, the servants could not remember any case in which the measure was challenged in the Judiciary. Because the enforcement technique is only applied in protected areas (conservation units, indigenous lands, and undesignated public forests), rarely in private property ("precisely so as not to be overly aggressive," in the words of an interviewee), contesting it before a judge would be tantamount to confessing a crime. The owners of the machines operate in complete illegality and therefore do not dare to claim compensation in court.

A third innovation that happened under Araújo's presidency in Ibama was the implementation of a new enforcement modality called indirect conversion of fines. The Environmental Crimes Act of 1998 already allowed for fines to be converted into "services to

preserve, improve, and recover the quality of the environment.” This provision, however, lacked more detailed regulation and had never been successfully implemented by Ibama. In 2017, a program for conversion of environmental fines was created by presidential decree (Decree No. 9,179/2017). By the new rules, Ibama was authorized to select through open calls projects of environmental conservation or restoration proposed by public and private non-profit entities. When requesting the conversion of fines, offenders could now opt to provide environmental services by their own means (a modality called direct conversion) or to fund a project previously selected by Ibama (indirect conversion). Offenders could not convert fines to repair damages resulting from one’s own infractions and the costs of preservation, conservation, improvement and recovery services should be equal to or higher than the value of the converted fine.⁶⁹¹ One interviewee explained the procedure as follows:

Conversion is there in article 72 of Law 9,605/1998. Simple fines can be converted into services for the protection of the environment. [...] Ibama tried to convert fines between 2008 and 2012, and everything went wrong. Volney, who was a serious president and is an analyst at the National Water Agency, suspended the application of the conversion. Why did it go wrong? One chief did the conversion in a way, the other did the conversion by buying a computer for Ibama. There was no right rule. There was confusion in the Federal Audit Court [TCU], there was confusion in the Judiciary. Then the agonized Volney said ‘Look, while there is no decent rule, there is no conversion.’ He signed an ordinance and that was it. I think he did the right thing. It only brought problem, right? When we got in, Zequinha wanted, was interested in the conversion. There was a process going on at Ibama, and the legal department was analyzing it. I asked him if he would let me put that process forward, so that we could generate a presidential decree. That was what he did. He let us, we put it forward, changed the wording and created the indirect conversion, that’s how we call it, which still exists. The direct one is: you take your fine and transform it into a service. You pay me in services. You substitute an obligation to pay for an obligation to do, and you do it. This is the direct one: I am going to recover so many hectares of such and such area. In the indirect one, you get big projects of environmental recovery. Our concern, especially my concern, was with the Paris Agreement and the issue of recovery obligations that the country has, never fulfilled, and had no money [to fulfill]. Then you take big projects and make quotas. So, instead of the person making the project, you do it. You get pre-approved projects made by non-governmental organizations, made by the government, [...] in which the fined party will say ‘I want to invest in so many quotas of such and such a project.’ We got this decree approved by Temer, Temer signed it. There was a problem with the Ministry of Finance, but then they ended up accepting it. (Interview with a former Ibama servant).

After managing to convince Sarney Filho and Temer to regulate conversion by decree, Ibama’s leaders organized a first public call to select projects for environmental recovery. The call received massive interest from offenders, having attracted a total of BRL 1,1 billion in fines (in net value, even after Ibama applied a 60% discount). The figure was this high because Ibama’s leadership managed to attain the commitment of state-run oil company Petrobras, which alone owed more than BRL 1 billion to Ibama (in gross fine amounts) but always

⁶⁹¹ BRAZIL. Decree N° 9.179/2017, articles 140, 142 and 143.

succeeded in postponing payment with judicial delaying tactics. This initial call channeled resources to two projects, both of which would benefit rural populations and traditional communities while also helping Brazil fill its recovery obligations established in the Paris Agreement. The first project aimed at recovering ten sub-basins of the São Francisco River in Minas Gerais and Bahia, which faced serious problems of water scarcity. The idea was to regenerate vegetation in areas of aquifer recharge and springs alongside the river. The second project aimed at empowering small rural properties alongside the middle and lower Paraíba River in Piauí, with a focus on quilombola communities. The region has one of the lowest HDIs in Brazil. Correspondingly, the project's goal went further than environmental recovery, including socioeconomic assistance to smallholders.

Although Decree No. 9.179/2017 allows for both NGOs and public entities to candidate projects for environmental recovery, the initial call was announced only for NGOs. This was because, according to the legal framework built for the instrument, the money could not enter the public treasury; it had to go directly from the fined company or individual to the institution responsible for the project. The money flow was conceived as follows: the fined company or individual deposits the full amount into an account at the state-owned bank Caixa, which would release the money to the projects in installments upon Ibama's approval, conditional on the adequate implementation of the project. Ibama's team had not yet devised a legal formula to enable public entities (e.g. municipalities) to participate in that flow without the money passed through the treasury. Hence, the first call targeted only NGOs.

The selection process was very carefully designed to ensure that no specific organizations would be privileged. An external team was hired to select the applications, whose files were taken to a hotel so they did not stay in Ibama. Except for the external team, nobody had access to the application files. As reported by one interviewee, among the applicants "there were [organizations] like Banco do Brasil Foundation and Caritas. It is not Greenpeace that competes for this kind of thing." In the end, 34 NGO-led projects were selected. The only step that was missing was signing the contracts with the NGOs. Ibama's team hurried up to try to sign them before Bolsonaro was sworn in but did not make it. When Eduardo Bim, Ibama's next president nominated by Bolsonaro, took office, he refused to homologate the call's result and the initiative was discontinued (we come back to this termination in subchapter 10.1 below).

This was the beginning of 2018. I couldn't advertise on TV or anything, and started to go after it. I called the president of Petrobras, it was [Pedro] Parente. They had never paid a dime of Ibama's fines; from what I understood it was more than a billion and a half they owed. Petrobras doesn't pay the fine, it appeals, it prefers to pay a lawyer. It is more expensive than the fine, but it prefers. So I agreed with him, and he accepted, that Petrobras would take the fines and transform everything into [services for] the

São Francisco. Our eyes were shining. Without an electoral campaign, without anything, we managed, in terms of interest in the process, [to attract] fines that amounted to more than BRL 1 billion and 100 million net, after giving a 60% discount. 1 billion is a fortune for Ibama, a fortune. Not a penny was going to Ibama, zero, zero. Everything would go to the projects. I think nothing should go to the environmental agency, it should all go to the project. [...] We selected the projects, both for São Francisco and Parnaíba. There was an external team to judge, so that it wasn't Ibama itself. We judged. The only thing missing was signing the contract with the NGOs, and Bim annulled the call, suspended it, revoked it. [...] In 2018, Ibama had 38 billion in unpaid fines. 40% of this money could be used. [...] Offenders adhere [to indirect conversion] because it is a solution. They can advertise it. They can go on TV saying that they are saving the São Francisco River. There is no problem. I don't care about this, about putting bad payers to do this, as long as they invest in the environment. [...] The whole team, everybody was very excited about it. When the applications were selected, not even I could have access to them. If I wanted to see, it was forbidden. Only those who were judging [had access], and there were external people on the team. They went to a hotel so that the applications didn't stay in Ibama. It was done very carefully so as not to benefit specific groups. (Interview with a former Ibama servant).

To sum up, amidst the widespread slowdown of socioenvironmental policies triggered by Temer's ruralist-friendly agenda of austerity, the nomination of a half-traditional, half-environmentalist politician to lead the Ministry of the Environment and of a competent and well-intended expert to head Ibama placed a sort of protective belt around the agency. Despite acute budget constraints, operations resulting in embargo, seizure, and destruction continued to be carried out on a regular basis. The rhythm and boldness of operations targeting supply chain actors intensified, and new technological and preventive approaches such as automatizing fine application and sending mass monitoring alerts were tested. The core elements of the doctrine of deterrence were further consolidated into Ibama's organizational structure and culture with the update of the manual of inspection. The procedure for destroying equipment received a more formal and institutionalized internal treatment. A billionaire amount in fines that would never have been collected was channeled into innovative projects to regenerate vegetation, recover river springs, and invest in traditional communities. Ibama, specifically, was not *dismantled* under Temer. It navigated in a general context of dismantling and, under the direction of committed leaders, even managed to advance in terms of capacity-building. Although the agency's efforts were not enough to reverse the upward trend in deforestation that started in 2014, they certainly contributed to the rate not being even higher. Next, we will look at the transformations that Ibama's nodality tools underwent from August 2016 to 2018.

9.2 Nodality: prioritization of national and international press coverage

With regards to Ibama's nodality tools, from the documentary sources and interviews, three transformations were identified. First, Ibama's social communication department was

restructured, which allowed for the expansion and deepening of the agency's relations with the press. Second, the new communication department started to make public for the first time the images and videos of equipment being destroyed in inspection operations. Last, Ibama took over the chairmanship of Redlafia.

Starting with the latter, we already saw in subchapter 8.2 that Brazil joined the Latin American Network of Environmental Inspection, Redlafia, in 2014. Three years later, Ibama took over the chairmanship of the network. According to an interviewee, this was an initiative led by the Scholar. He accompanied Suely Araújo to the 2016 meeting held in Panamá, and managed to convince her to assume the network's presidency for one year. The positions granted Brazil an articulating role in the organization of meetings, courses, and other events, which involved mediating conflicts of interest among member countries and between them and external bodies, such as the Inter-American Development Bank (IDB) and the U.S. embassy. Furthermore, a leading role in the network allowed Ibama to organize workshops on environmental inspection intelligence with neighboring South American countries, which are spaces of interaction propitious to sealing relationships of trust with mid-level officials from the intelligence department of other environmental agencies on the continent.

In 2017, Ibama became president [of Redlafia]. It was the [Scholar] who sold the idea to Suely. It was at a meeting in Panama that Suely agreed to take over the presidency, counting on his support. [...] In 2018, we took advantage of this articulation of the Redlafia and brought officials from other agencies into our intelligence course. Agencies usually do not do this if they do not trust the relationships they have, because intelligence is a slightly more restricted area. But we did it thinking about a strategy of building a South American network of information exchange. Because intelligence without contact, without sources, you are restricted to the universe you already have, to the information you already know. So, we built bridges with these other countries, and we pulled the guys from the other more traditional agencies of the Brazilian intelligence system into this environment of novelty that was environmental intelligence. And it was very good. I think Ibama wins. It has results on top of that until today. Because intelligence activity tends to be especially more perennial than other areas, in the sense that the person who is from the intelligence community tends to remain in the intelligence community. Therefore, we tried to create this spirit de corps with the technical level of the other agencies. Because there are a lot of events on the leaders' agenda, the guy goes and so on. But the technical level is the one who makes cooperation run, who then uses these contacts on a daily basis to enrich their work. We organized an intelligence course, a workshop on environmental crimes investigation, a seminar on pesticide inspection, all with international participation. We were, let's say, internationalizing our activities, bringing this audience in, both to benefit them and, in a second moment, to benefit from having contacts on certain topics. (Interview with an Ibama servant).

Moving forward to the changes concerning Ibama's social communication office, the importance of press coverage to increase the visibility of operations and amplify deterrence – “fighting the media battle,” – was already recognized since the early developments of the doctrine. Yet, the institutionalization of social communication as a “strategic element for the

promotion of deterrence and the prevention of environmental crimes” reached a new level in 2016, in the second update of Ibama’s manual of inspection, as anticipated above. From then onwards, all operations had to include a communication plan. In parallel, Ibama’s communication office, Ascom, was restructured: an experienced environmental journalist was hired to run it, and an internal selection process was conducted to identify and recruit servants with a background in social communication studies.

The new team, however competent, was very small. It was composed of one expert plus, at a later stage, the only three servants that, despite long years apart from professional practice, fulfilled the requirements of the internal selection. Here again, limited personnel demanded strategic planning. At the time, a conscious choice for the prioritization of national and international media over local and regional media was made. Also, for the first time, the agency decided to publish photos and videos of its most impactful enforcement measure: the destruction of equipment. These images and videos were already routinely taken by the servants, as inspection regulations required that the infraction notice be accompanied by the greatest possible amount of probative evidence. But until then they had limited circulation, were kept for internal use only, and had a more technical character. The agents knew that publicizing the material could have good deterrent effects and help solidify Ibama’s reputation in society yet feared that without clear safeguards in terms of communication strategy, it could stir up the opposition of affected groups to Ibama’s actions.

Under the direction of the experienced journalist hired to run Ascom, this fear was overcome, and photos and videos showing the application of the destruction measure began to be published. Images shot for the external public had a noticeably more cinematographic composition in comparison to the ones intended for internal use in infraction notices. Ibama’s operations began more often to be given prominence in Brazil’s most popular television programs and newspapers, such as *Fantástico*, *Jornal Nacional*, and *Folha de São Paulo*. An article portraying Ibama’s rangers as “one of Latin America’s most feared elite fighting units” was published in *The New York Times*.⁶⁹² The reportages strived to convey the image of a stark agency, made up of elite squads full of “brawny nerds,” rangers whose threatening looks would arise out of the combination of the virtues of strength and smartness. One interviewee articulated what was Ascom’s rationale at the time:

We had to show a strong Ibama, knowing it was not that strong. I started to publicize something that had never been publicized before, which is delicate and will generate

⁶⁹² ROMERO, Simon. Special Ops With a Studious Bent Fight Destruction of Brazil’s Amazon (The New York Times 06 April 2017). Available at: <<https://www.nytimes.com/2017/04/06/world/americas/special-ops-with-a-studious-bent-fight-destruction-of-brazils-amazon.html>>. Accessed on 10 July 2023.

a reaction from senators against [Ibama's leaders], as it happened: the destruction of goods. The first article that was done about this was in the period that I was there. You can see it on the cover of *Folha*, one page. Then Simon Romero did an excellent article in the *New York Times* showing the work of the GEF. We needed to show a strong Ibama. [...] Ibama has never killed anyone, has never attacked anyone. I participated in dozens of operations. [...] Who is making money out of this are not the people [caught on site]. They are victims, they are victims. It is a bit of a cliché yet they are people who are part of the scam, but it is not only them who are causing [deforestation], it is also those who are financing. How much does a backhoe like that cost? Disclosing that Ibama is not that chubby guy who won't be able to run after. Oh no, they are university professors, strong as fuck, biologists that will get there and kick ass, you'll lose [the machinery]. It had an effect, the guys are really afraid. [...] There was an internal discussion about how to disclose destruction. It is a polemic thing, a problem, but has to be done. Because it is the best way to decapitalize the guys and prevent the damage from increasing. (Interview with a former Ibama servant).

As another interviewee explained, during the period when Ascom was most active Ibama's inspection branch occupied much more space in the media (around 70% of Ibama's content) than other departments of the institution such as licensing. The main reason for this was that inspection generates facts that can be reported practically every day, differently from other areas where deliveries are periodicized. Environmental licenses are usually the result of months or years of analysis, and thus cannot be reported on a daily or weekly basis. The access of Ibama's inspection team to the press, of course, was not unlimited. Not every activity could be publicized, as there was a limit to the institution's ability to influence the press' agenda-setting. In print media, this limit was measured as a percentage of square centimeters on newspaper pages. In digital press, other measurement techniques to calculate the institution's presence in the media and the impact of the published content in the public sphere were used, such as engagement and interaction metrics segmented by target audience. "Differently from what many people say," observed one interviewee, "it is not just about making news. Institutional communication is distinct from individual communication."

One can hardly overemphasize the importance that the publicization of images and videos of the destruction of equipment had to the formation of Ibama's visual identity. In the theoretical chapter we employed the term "scheme" to refer to any image or dictum deemed exemplary, either positively or negatively, by the participants of a group. Schemes are usually expressed by means of a metaphorical complex of words and images that discloses what the organization ought to be about; they are symbols that evoke the common identity of a collective. The word "deterrence" condenses the guidelines of action animating Ibama's inspection work and can be read as a scheme that brings the organization's identity to language. As the servants wearily repeat and we have argued throughout this dissertation, Ibama's toolbox to promote deterrence is not restricted to destroying machinery. In fact, destruction is a relatively small

part of Ibama's inspection job. The future of deforestation prevention and control lies in the incorporation of technology (especially big data analytics) to track suppliers, buyers, and financiers of commodities produced with illegal deforestation. Even though fieldwork and the physical disruption of criminal logistics will never cease to be necessary, the servants hope it will become an increasingly marginal part of their work.

That being said, the instrument's potential to capture, condense, and convey Ibama's visual identity and collective point of action is undeniable. No other activity performed under the banner of deterrence produced an imagetic expression as compelling as the one generated by the destruction of equipment. Images of uniformed and armed soldiers standing next to burning tractors in the middle of the forest were stamped on the cover of newspapers and hung on the walls of Ibama's headquarters in Brasília. When the institution's inspection branch needs to transmit to society a wordless message about what its spirit is about, these pictures have an impactful effect. Their contrast with the visual representation of the inspection culture prevalent at the time of IBDF is flagrant. Formerly, rangers were portrayed as non-threatening, amicable, and adept at persuasive techniques far more than punitive ones.

Figure 4: Contrast between the visual identity of Ibama and IBDF

The New York Times

AMERICAS | Special Ops With a Studious Bent Fight Destruction of Brazil's Amazon



Ibama portrayed as an “assemblage of Special Ops nerds” in the international media. Source: ROMERO, Simon. Special Ops with a Studious Bent Fight Destruction of Brazil's Amazon (The New York Times, 6 April 2017).



Depiction of an IBDF ranger. On the top, one reads: “Make the offender see that your job is important to everyone, including him.” Source: IBDF, Manual do Fiscal [n.d.], p. 4.

Figure 5: Photos hanging in the central hallway of Ibama's headquarters in Brasília



Source: author.

Some patterns can be detected in the pictures of destruction taken during inspection operations. In addition to the display of weapons, uniforms, and helicopters and the eye-catching sight of flames devouring heavy machinery amidst the green forest and the muddy fissures opened by invaders, two absent presences draw attention. Neither the men eventually found on site working in precarious conditions nor the actors who finance and profit from deforestation appear in the images. The only humans in sight are the rangers. While the absent presence of the financiers in a certain sense is materialized and symbolized in the burning machines, the erasure of manual laborers leaves few traces in the photos. In my judgment, these elements can be equally read as representations of Ibama's doctrine. If capital is the beating heart of the networks sustaining deforestation, deterrence requires concentrating institutional energies on individuals with the most economic and political power. Miners and loggers in slave conditions are more victims than perpetrators; the focus is not on them.

Although Ibama agents are aware of the asymmetry between manual workers and wealthy financiers and have sought to concentrate their efforts on dissuading the latter, the anger of local populations who depend on the economy of illegal deforestation only increased with the publicization of destruction images. Prioritizing national and international audiences (thus groups less embedded in the Amazon) was a conscious choice made by Ascom at the time for reasons of personnel deficit. Albeit understandable, this decision triggered undesired effects, particularly with the non-indigenous and non-traditional populations living in and migrating to municipalities where Ibama's presence is more assiduous and local radios still play a major role as entertainment and information sources.⁶⁹³ These groups, which notoriously perceive anti-

⁶⁹³ CAMPBELL, Jeremy. *Conjuring Property: Speculation and Environmental Futures in the Brazilian Amazon*. Washington: University of Washington Press, 2015, p. 93. In my first fieldwork visit to a rural union in Southern Pará, I met a rancher who owned a local radio channel. All his operations (including the physical location of the antenna) were based inside the rural union.

deforestation operations as illegitimate restrictions on property rights and unjust obstacles to wealth origination, became increasingly averse to the agency. Even though Ascom put a lot of effort into training spokespeople to communicate inspection outputs in a way that both increased society's risk perception and minimized hostile reactions by local populations, a fine balance between the two objectives was not always possible.

In July 2017, eight Ibama vehicles were set on fire on BR-163, near the border of Mato Grosso and Pará, by a group of illegal loggers. The trucks were being transported on a trailer to renew part of Ibama's fleet at the base in Novo Progresso, Pará. The attack occurred right after operations that succeeded in reducing deforestation along BR-163. In October 2017, the operational bases of Ibama and ICMBio in the municipality of Humaitá, Amazonas, were burned by illegal miners. The act was a retaliation against Operation Fine Gold, which seized 37 mining rafts on the Madeira River. When the servants started to incinerate some of the seized rafts, the miners gathered in the streets to protest, invaded and then set fire to the buildings of Ibama and ICMBio. The National Force was in the city to escort Ibama but, as it did not have the means to stop the riot without escalating the conflict, could not prevent the units from being set on fire. In October 2018, other three Ibama vehicles were burned in the municipality of Buritis, Rondônia. The trucks were parked in front of a hotel when an individual threw a gallon of gasoline and then set them on fire. Another man at the scene incited the population to destroy other Ibama trucks but this second attack was prevented by the police, who detained the individuals.

These were neither the first nor the last assaults suffered by environmental agents in retaliation for command and control actions. Yet, they delivered the message loud and clear: protected by politicians at the federal and local levels, those involved in economic activities thwarted by Ibama's actions will not bear the damage without revenge. In addition to being like fuel in the fire for angry groups that suffer immediate economic loss with environmental enforcement, destruction images sometimes also generate revolt even among citizens not involved with deforestation. For some people, it is hard to understand that transporting heavy machinery is nearly impossible given the topographical and weather conditions of the Amazon. To them, destruction appears as an unacceptable waste of valuable assets (tractors, ballast engines, backhoes, etc.) that could be donated to municipalities or charitable institutions and used in construction.

Against that background, the servants interviewed unanimously considered that retaliatory acts by specific groups and the general population's lack of knowledge about the impossibility of transportation are not reasons to stop giving publicity to destruction images.

They rather believe the way forward is to fine-tune the agency's communication strategy and move forward with the positive agenda of bioeconomy, so that communities today dependent on the economy of deforestation are offered an alternative source of income. Five fragments conveying this opinion are transcribed below.

The only tool that works in a business of this magnitude is the immediate impact on the pocket. [...] When you catch an illegal miner with a BRL 1 million machine that sometimes he is still paying in installments, and you go there and take this machine away from him, either by seizing it and removing it from the site or by destroying the equipment, you have an immediate impact. Whereas he will appeal for years against a fine. If you go to the machine, the operator who is there is illiterate, just any guy, he is not the owner of the machine; it is difficult to get to the person responsible. [...] It has to be fast. You can't wait and leave it there for a while to investigate, you have to have a direct impact. And it is not possible to remove these machines from the sites. Period. It is not possible. In a few places where it was possible, it was done. In an estimate that we made, not even 10% of the goods seized by Ibama were destroyed. If I am not mistaken, 1.6% of the total of goods seized by Ibama were destroyed. Machines reached 10%, something like this, 8%. You can see that we destroy only a small part of it. But the destruction had a huge media impact, because it's a war scene, machines on fire, and so on. This makes people mad, and rightly so. This is why the social communication message has to be very well worked out so that it doesn't seem as if Ibama is only there to destroy, harm, and not to take care of the environment, as it is our responsibility. We don't do that for satisfaction, for radicalism, for the pyrotechnic show, for burning, no. But this message, when it arrives on the ground, most of the time it arrives misrepresented. It brings a negative aspect to us and reverberates in revenge, as we have seen lately. (Interview with Ibama servant).

The destruction of equipment did not start now; it is something that has been in the norm since 1998 and was later included in the 2008 decree. It is always an exception, [applied] if it's difficult to remove the equipment, if it will end up being [re]used. This also became part of the strategy provided for in our regulation, which is to decapitalize the offender. [...] In these cases, we do the destruction and this ends up generating a disincentive. [...] Of course, this also substantially aggravated this effect contrary to our work, especially in regions where there was destruction of equipment. In our activities, we already evaluate these consequences. [...] We made use of social communication strategies, but in a very, very well thought out way because the possibility that they will have a totally opposite effect does exist. But the fact is that whenever there is destruction of machinery there will always have opposition. Action and reaction. There will always be action and reaction. This is already expected by us. (Interview with Ibama servant).

Lack of communication is what causes ricochet effect. The role of communication is exactly the opposite: to try to prevent this from happening, to prevent a completely mistaken narrative about our work from prevailing. These communication tools help us with this. But it is also clear that using communication in the wrong way also brings a bad result. This is what also sometimes happens. Pictures of operations are leaked; images of destroyed equipment are leaked. Of course this is going to generate a lot of questioning, 'why didn't you seize it, why didn't you donate it to the municipality?' So, this communication must be done by professionals and within the planning. We prepare these people to speak and not let the contrary narrative run wild. (Interview with Ibama servant).

[Communication] has a fundamental role. On the other hand, we live in the era of the information war. When we are in the field, it is common, even more now with WhatsApp, social networks, that the violators organize themselves, try to organize themselves to inflame, to encourage adverse acts against Ibama, to put the population against enforcement, to try to stop the enforcement action. They also use the same techniques that we use. This information war exists in the field. That's why many

times the operation coordinator has to know the timing to disclose the action, how to disclose, what's the discourse, the angle he will use in the disclosure. (Interview with Ibama servant).

If you look from 2017 onwards, maybe late 2016 onwards, Ibama became more present in the media. The issue of destruction of property started to appear more frequently. Until then, we didn't have it, we were destroying it very well, but there was almost no visibility of it, due to a series of factors. [...] Because this has been used, I can name people here. Congressmen Nelson Barbudo and José Medeiros from Mato Grosso. They constantly used videos and more videos saying that Ibama is this and this, and they got elected with it. Instead of praising the institution, we are giving fire to the enemy, in quotes, to a person who is using this situation to be elected. Besides the trauma of having an Ibama unit burned down, having vehicles set on fire, you are also helping that sector to elect a representative in Congress. Look at the gravity of this. It is something bigger. And they used these arguments many times, many times, showing images made by Ibama itself, 'look what Ibama did, it burned 12 machines instead of taking and donating them to the municipalities in the region.' Last week I saw a comment in an Instagram post saying 'why didn't you take and donate this BRL 1 million machine?' People don't know the Amazon; they don't know what it's like. They think it's all pretty, like São Paulo here in the center south, Rio, all full of pretty little roads. They don't know that it took three months for the guy to arrive with this machine inside the indigenous land, or that it took a raft almost sinking to get to that place. I mean, he doesn't know. Then it is normal for the chiefs to suffer a little more from this burden. Oh, I received death threats and so on. Not [only] me, me and several other colleagues. Because in the end, it is the person who is going to appear there at the time of the interview. You are the institutional spokesman. Of course, we are much more cautious to transmit information there. We often ask the reporter to be careful in the way he puts it there because you can bring something more dramatic that will inflame a wing, and it ends up not having the desired effect of dissuasion through communication, but a revolt. So you have to be very careful with this. (Interview with an Ibama servant).

To sum up, two transformations in Ibama's nodality tools identified during Araújo's presidency at the agency were the restructuration of the social communication department and the publicization of destruction images. Ibama's inspection branch began to receive more attention from the national and international press. Media campaigns targeting local radios were idealized, but could not be put into practice on account of Ascom's personnel deficit. Shooting and releasing destruction images significantly contributed to the formation of Ibama's visual identity. The rangers' collective self-understanding itself has been influenced by exposure to this material. Another effect was that society began to more easily associate Ibama with anti-deforestation inspection operations in the Amazon, which had positive and negative consequences. On the one hand, it has brought prestige to the institution in the eyes of citizens favorable to environmental law enforcement. On the other, it increased the anger of populations living in regions economically dependent on illegal logging and mining. In the next section, we will go through changes in Ibama's treasure during the Temer government.

9.3 Treasure: budget constraint and the Amazon Fund

Temer and his allies attributed the economic crisis Brazil was going through since 2015 to an alleged uncontrollable growth of public spending resulting from the Workers Party's macroeconomic policies. Accordingly, after Rousseff's impeachment, the first item on Temer's agenda was to design a "credible fiscal austerity program." Supported by agribusiness, financial institutions, and part of the media, he announced a set of structural reforms that aimed at an expansionary fiscal consolidation based on the generation of positive confidence among businesspeople. As argued by economist Fernando Cardim, the incoming political group that surrounded Temer believed that cutting public debt and nominating authorities trusted by market actors would be sufficient to pull the country into recovery. His team had no clue about what could be done to expand economic output and employment other than "repeatedly stating its expectation that confidence would quickly recover" and "hoping for a spontaneous surge of optimism by business people."⁶⁹⁴

Under the justification of making Brazil more attractive to investment, controlling fiscal debts, and alleviating pressure in interest rates, Temer introduced a set of changes in labor and social security regimes, which allowed unrestricted labor outsourcing, de-funded unions, flexibilized rights and guarantees, decreased pension benefits, increased working time for retirement, and interrupted minimum wage and civil service valorization policies.⁶⁹⁵ Alongside these measures, he proposed an amendment to the constitution that froze total public spending for 20 years at 2016-2017 levels. The fiscal rule was considered quite draconian even by non-strictly neo-Keynesian economists: nominal expenditures were adjusted only to variations in a consumer price index so as to be kept fixed in real terms. This meant that even if Brazil had again primary surplus, public investment could not be increased. To deflect criticism, the proposal set global limits instead of sacrificing specific policies. In that way, the government could argue that it was just a matter of prioritization, claiming that "any priorities set by society c[ould] be pursued and supported with more resources, as long as nonprioritized expenditures [we]re sacrificed in equal manner."⁶⁹⁶

⁶⁹⁴ CARDIM, Fernando. Brazil still in troubled waters. Public Policy Brief No. 143, Levy Economics Institute of Bard College, 2017, p. 6.

⁶⁹⁵ COSTA, Marilda; DOMICIANO, Cassia. Fiscal austerity, authoritarianism and educational policy: legislative changes in the democratic management of the school system and the public school of Mato Grosso. *Educar em Revista*, v. 36 e70086, 2020, p. 9.

⁶⁹⁶ CARDIM, *op. cit.* p. 5.

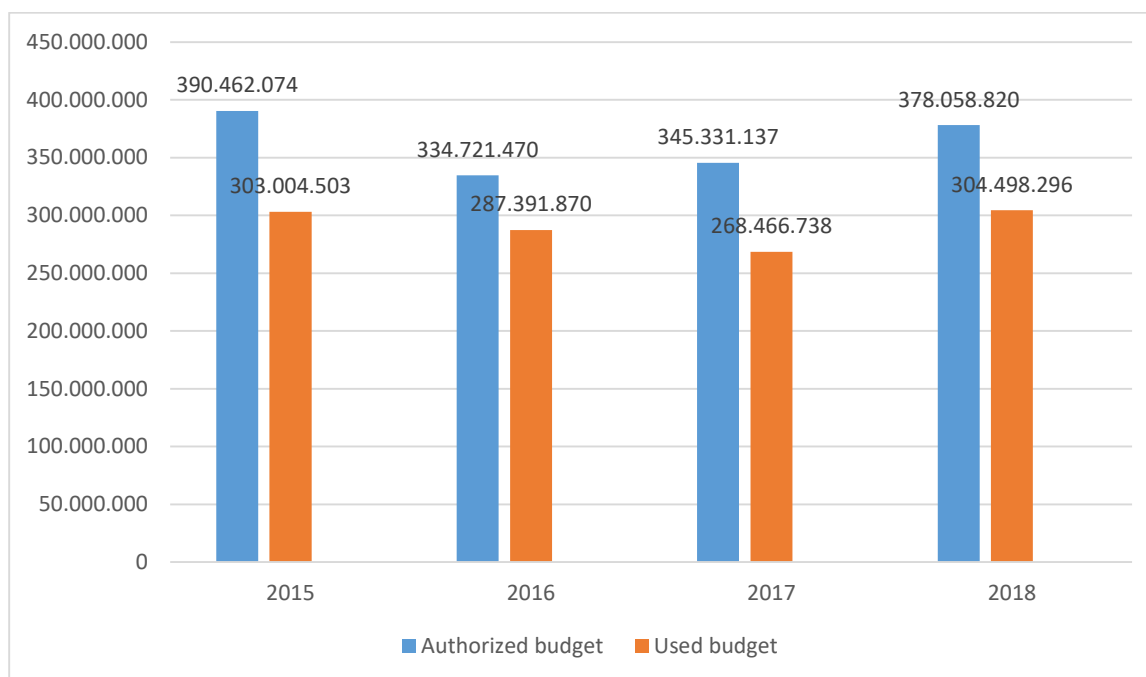
Temer's package of restrictive policies, as economists have persistently shown, did not succeed in attenuating economic decline, let alone accelerating growth. Austerity did not fulfill the promise of helping manufacturing firms deal with falling profitability and increasing competitive pressures. The recession Brazil had been experiencing since 2015 was not caused by excess fiscal expenditures and thus could not be solved with the confidence of private investors in balancing budgets. There is evidence it was rather the other way around: Rousseff's attempts to implement austerity policies in 2015 transformed stagnation into open recession.⁶⁹⁷

That said, of relevance for our research focus is that the constitutional amendment proposed by Temer impacted Ibama's financial capacity. The agency's budget had already suffered a cut in 2015 – as we saw, resources destined for inspection dropped 33% in 2014 and 2015 compared to the 2013 investment peak. The budget allocated for inspection in 2016 was 42% lower than that of 2013 (see graphic below). If in 2013 inspection received BRL 115 million, in 2017 this amount was reduced to BRL 97 million.⁶⁹⁸ Environmental policy tended to be seen as less of a priority than other social policies and was thus easier to sacrifice within the global cap model proposed by Temer. To Ibama, this sacrifice meant that replacing retired servants with new hires got more difficult, as it became more challenging to continue paying the lease contracts for vehicles and helicopters used in inspection. In 2016 Ibama was 6 months in default on the contracts. At a certain point, the truck company cut the cards used by the rangers to supply fuel, and inspection activities came to a complete halt for a whole month throughout the country. As one interviewee narrated:

I had budget allocation, I had authorization, but the money [*financeiro*] never came, never, never. Both the helicopter and the truck leases were six months behind. The truck company cut the fuel cards [...] and inspections stopped all over the country. And we couldn't say that inspection had stopped, Carolina, because otherwise the bandits would run wild, right? But it stopped for a month, without any inspector in the field, without any car outside the headquarters and regional offices. (Interview with a former Ibama servant).

⁶⁹⁷ CARDIM, *op. cit.* p. 8; SINGER, *op. cit.* p. 211-213; CARVALHO, *op. cit.*

⁶⁹⁸ BRAZIL. Portal da Transparência <<http://www.portaltransparencia.gov.br/orgaos/20701?ano=2017>>. Accessed on 27 March 2021.

Graphic 2: Ibama's budget evolution 2015-2018 (in BRL million)

Sources: ARAÚJO, Suely. Proteção ambiental baseada em evidências? Evolução institucional, planejamento e execução orçamentária no Ibama. In: KOGA, Katália *et al.* (orgs.) *Políticas públicas e usos de evidências no Brasil: conceitos, métodos, contextos e práticas*. Brasília, Ipea 2022, pp. 725-745, p. 739; CLIMATE OBSERVATORY. *Passando a boiada – o segundo ano de desmonte ambiental sob Jair Bolsonaro* (2021), p. 10.

The adverse consequences of budget cuts, however, were partially circumvented by the diligence and inventiveness of Ibama's presidency at the time. Araújo managed to secure alternative funding from the Amazon Fund to keep anti-deforestation operations going. The Amazon Fund, as we saw in chapter 4, is the main financing instrument based on compensation for REDD+ results implemented in Brazil. Created by Decree No. 6,527/2008 under the scope of PPCDAm, the fund is an account held at the National Bank for Economic and Social Development (BNDES), which destines donations for non-reimbursable investments in actions to prevent, monitor and combat deforestation and to promote the conservation and sustainable use in the Amazon. In its first decade of existence, the Amazon Fund raised BRL 3.4 billion, of which 93.8% was donated by Norway, 5.7% by Germany, and 0.5% by Petrobras. By 2018, its portfolio encompassed 102 projects, being considered the largest REDD+ initiative in history in terms of monetary value raised.

The governance of the Amazon Fund is structured around two instances: the Supervision Committee (Cofa) and the Technical Committee (CFTA). Cofa is responsible for establishing guidelines and criteria for the application of resources. It is composed of nine representatives from the federal government, one representative from each of the nine Amazonian subnational governments, and six representatives from civil society. Cofa's

deliberations depend on consensus among the three segments. The CFTA is responsible for certifying the effective reduction of carbon emissions using a calculation methodology established by the Ministry of the Environment. The commission is composed of six experts with “unblemished reputation and notorious technical and scientific knowledge” appointed by the Ministry of the Environment after consultation with the Brazilian Forum on Climate Change. The role of BNDES includes attracting donations, issuing diplomas acknowledging the donors’ contribution to the fund, and contracting annual external audit services.

Usually, projects supported by the Amazon Fund must observe a criteria called “resource additionality,” that is, they should support actions that are additional to those already covered by public budget. A rigid interpretation of this principle would rule out the possibility of funding the lease of trucks and helicopters for Ibama’s inspection activities. However, Araújo managed to convince the Supervision Committee of the Amazon Fund to waive, with the donors’ consent, the usual requirement of resource additionality and issue a special authorization for Ibama to receive donations given the importance of inspection to control deforestation. This exception was formalized in the fund’s guidelines under the rubric “I3 - Exception to the conditionality of resource additionality in the Legal Amazon.” Now, projects that aim to “continue or improve the environmental inspection and control of deforestation, presented by federal or subnational public agencies or institutions with a legal mandate to carry out inspection” may, exceptionally, be exempt from the criterion of resource additionality, provided the applicant institution proves there are no resources available for the inspection activity in question.⁶⁹⁹

Based on this exception, Ibama signed three contracts with the Amazon Fund (Profisc 1, Profisc 1-B, and Prevfogo), which secured more than BRL 150 million for the agency. These were the largest contracts signed by the Amazon Fund with the public sector, and were essential for Ibama to be able to continue paying its costliest expenditures: the lease of helicopters and trucks employed in inspections. Contract Profisc I-B alone allowed for 9,893 hours of helicopter flights and the use of 172 trucks, with which Ibama carried out 955 missions and issued 12,074 infraction notices amounting to BRL 8.9 billion.⁷⁰⁰

⁶⁹⁹ BRAZIL. Ministério do Meio Ambiente. Fundo Amazônia. Diretrizes e critérios para aplicação dos recursos e focos de atuação para 2017 e 2018. Available at: <https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/diretrizes_criterios/2017_2018_Diretrizes_e_Focos_junho.pdf>. Accessed on 10 July 2023.

⁷⁰⁰ BRAZIL. Ministério do Meio Ambiente. Fundo Amazônia. Projeto Profisc I-B. Available at: <<https://www.fundoamazonia.gov.br/pt/projeto/Profisc-I-B/>>. Accessed on 10 July 2023.

Who brokered the connection between Ibama and the Amazon Fund was Marilene Ramos. She was a director at BNDES and had been president of Ibama from May 2015 to August 2016, immediately before Araújo. Aware of the indispensability of inspection and sensible to Ibama's worrying financial situation, Ramos quickly understood the importance of Araújo's request and sponsored the proposal before other BNDES directors and the Amazon Fund committees. As Ramos stated at the time: "We need to highlight the trust that the donors and the bank had in this project, which broke paradigms to be made viable. It doesn't make sense that the agencies with the greatest responsibility in combating deforestation, Ibama and ICMBio, don't have access to the Amazon Fund."⁷⁰¹ This constellation of events calls forth Carpenter's notion of bureaucratic entrepreneurship: the ability demonstrated by leaders to sew alliance networks and convince "diverse coalitions of organized interests, the media, and politicians of the value of their ideas and their bureaus."⁷⁰²

Because of Araújo's bureaucratic entrepreneurship, Ramos' brokerage, and the donors' trust, inspection was resumed in the Amazon *despite* the repressive fiscal regime imposed by Temer. The episode resulted in a positive innovation in the rules of the Amazon Fund, allowing for international resources to be channeled into capacity-building efforts of state agencies. In my reading, the facts surrounding the signing of Profisc refute arm's length critiques of REDD+ mechanisms that, drawing mainly on literature review and disregarding documental sources that give concretion to how the funding is used, shallowly dismiss them as expressions of "market-orientated environmental governance" and "neoliberal green governmentality."⁷⁰³ REDD+ mechanisms are not necessarily "neoliberal ecomodernist" tools. On the contrary: they can be transformed by Global South actors into funding channels to build state capacity and restrain the impulse for land commodification. The fragments below transmit in detail the perception of former servants involved in these events:

⁷⁰¹ ASSESSORIA DE COMUNICAÇÃO SOCIAL – IBAMA. Fundo Amazônia destina 140 milhões para a fiscalização do Ibama. Available at: <<https://www.ibama.gov.br/ultimas-3/1407-fundo-amazonia-destina-r-140-milhoes-para-a-fiscalizacao-do-ibama>>. Accessed on 10 July 2023.

⁷⁰² CARPENTER, *op. cit.* p. 30-32.

⁷⁰³ In a monograph dedicated to criticizing REDD+ as an expression of "market-oriented environmental governance" and "neoliberal green governmentality" that reproduces neocolonial North-South relations, Dehm justifies the book's lack of depth on the political and economic context of REDD+ recipient countries by stating that "representatives [of national governments] tend to be part of a 'transnational ruling elite' who may act against the interests of their own peoples; and thus legal scholarship orientated to the Global South must pay attention to the 'actualized experience of these peoples and not merely [to] that of the states which represent them.'" Besides ignoring the complexities underpinning political power struggles in Global South countries and pivoting on the false belief that is possible to directly access a "people's interests" without any sort of mediating representational structure (NGOs and social movements herein included), Dehm's analysis disregards key documental sources that give concretion to how the funding is used. DEHM, Julie. *Reconsidering REDD+: Authority, Power and Law in the Green Economy*. Cambridge: Cambridge University Press, 2021.

I got desperate. You have to invent something to get financial support. [...] The Amazon Fund is an enormous security, right? But there was the impediment of [inspection] being cost. [...] My luck was that [...] Marilena Ramos was at BNDES as director, and she helped us. She was a fighter. Because she knew how it was, how she left it, right? She really helped a lot. BNDES, I don't know if it is still this way, but all the directors and the president were in one giant room, listening to each other's conversations. It is their way. I don't know if it's because it involves a lot of money, so it is better this way to avoid corruption. There must be some explanation. If you want to talk about something secretive, you go to a little room next to this big room. I don't know if it's still like this. I remember that I went to talk to her and she made me talk to the others so that the people would understand the importance, you know? Then I went straight up. It was not the staff that took care of the Amazon Fund, but they have immediate influence on the technical team. And that's what kept us going. [...] Inspection has only been happening since December 2016 because of this, that is my reading. It is a guarantee, because we need the equipment. And leasing is the best way, Carolina. [...] In the public sector, buying car pieces is a complicated process. When you make a contract, a big contract, it is much cheaper for the whole country. In the case of the pickup trucks, the contract is for the whole country, it is the price of a very popular rental car, the cheapest on the list. And the trucks are manufactured for Ibama. [...] I ran with the bidding so that nobody could accuse me of leaving the government without the trucks. So we ran, stayed up nights, you know, it was a rush. I had authorization from the minister to spend up to BRL 50 million on this bid and it cost [only] BRL 28 million. (Interview with a former Ibama servant).

What the Amazon Fund does is pay the lease for the helicopters and trucks used in the Amazon since December 2016. They are Ibama's two biggest contracts. They are expensive contracts. [...] How do they work? You make a planning in terms of hours in the case of helicopters. In the case of trucks, it's not per hour, you pay a fixed fee, using or not using the helicopter per hour. Then you ask for the deposit in the Amazon Fund. They deposit it in Ibama's account and Ibama covers the invoices of the two companies, the car rental company and the helicopter rental company. It's very simple. Perhaps it is the simplest contract of the Amazon Fund. They just check if you flew or used the car, that's all. In other [contracts] of the Amazon Fund, they have to put a team to follow up in the field and see a lot of reports. In this case, I think Profisc is the simplest contract they have in their portfolio. (Interview with a former Ibama servant).

When we had budget difficulties, we called the Amazon Fund donors and asked them to pay for the helicopter flight hours. [...] They paid for the vehicles and helicopters, because they could see that there was political will, there was determination to comply with the law. (Interview with a former Ibama servant).

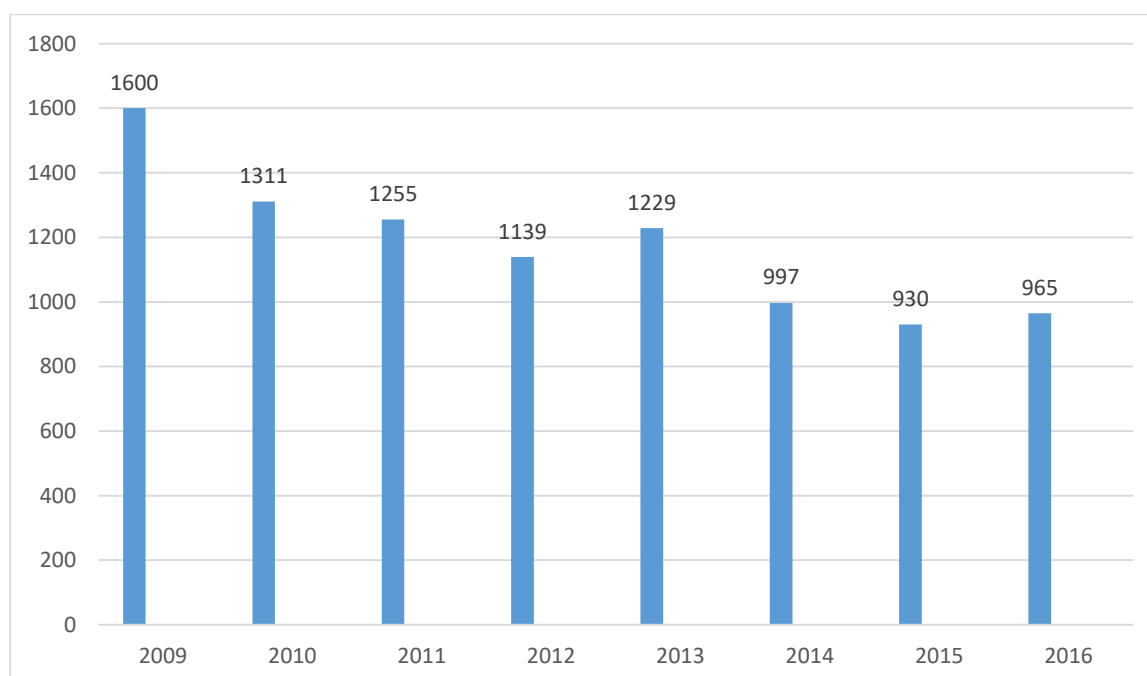
The inventive initiative spearheaded by Ibama's presidency to a certain extent shielded the agency from the widespread dismantling effects resulting from the spending cap introduced by Temer. Money from the Amazon Fund was what kept inspections going from December 2016 onward. As we will see in subchapter 10.3, the positive impact of the Profisc contracts further extended, even if more limitedly, into the Bolsonaro government. Next, we will look at the transformations undergone by Ibama's personnel during Araújo's presidency.

9.4 Background: oxygenation through external nominations

By 2016, the number of inspectors authorized to conduct field operations (the AAFs) had dropped 26% compared to 2010 and 15% compared to 2013. In 2016, there were 965 AAFs

for the whole country, while in 2013 and 2010 there were, respectively, 1,229 and 1,311 (see graphic below). Moreover, in 2016 about 38% of AAFs had 30 years or more of service time, and 19% were already entitled to retire and could leave the agency at any time. Amidst such a continuous decrease in its workforce, one strategy found by Ibama to continue executing PPCDAm was to temporarily transfer inspectors from their regional offices of origin to the Amazon. In 2016, 19 regional offices (out of a total of 27) had more than half of their inspectors assigned to carry out at least one operation in another state. This displacement impaired the operational capacity of local offices to combat environmental illegalities specific to their region. Several operations related to fauna, fishing, and biopiracy, for instance, had to be canceled due to the displacement of AAFs from all over the country to the Amazon.⁷⁰⁴

Graphic 3: Number of Ibama inspectors (2009-2016)



Source: BRAZIL. Ministério da Transparência, Fiscalização e Controladoria Geral da União. Relatório de Avaliação da Execução de Programas de Governo N° 69. Brasília 2017, p. 59.

Although the situation required the opening of more job positions, during the Temer government Ibama conducted no exams for admitting new staff members. Between 2016 and 2018, the Ministry of the Environment forwarded to the Ministry of Planning, Development, and Management at least one request per year requesting budget authorization for public exams for Ibama. All of them were denied by the latter.⁷⁰⁵ When a window of opportunity for the

⁷⁰⁴ BRAZIL. Ministério da Transparência, Fiscalização e Controladoria Geral da União. Relatório de Avaliação da Execução de Programas de Governo N° 69. Brasília 2017, p. 68.

⁷⁰⁵ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.43.

authorization of an extra budget to recruit new workers was finally opened by Ibama's presidency, lack of coordination within the Ministry of Environment nullified the efforts to organize a new selection announcement.

This was, I think, our greatest defeat. We tried [to organize] an emergency examination to [hire] 800 people. We got approval from the Ministry of Planning in all instances. All that was missing was the minister's signature. But then the Ministry of the Environment itself started asking for 800 positions for ICMBio. So, they didn't give them to us... I was very upset at the time, because Ibama had a much more serious deficiency of personnel. [...] There was maladjustment (Interview with a former Ibama servant).

Since the door for new hires was closed, Ibama concentrated efforts on internal training, intending to qualify more servants as AAFs. One can see in the graphic above that the agency gained 35 new AAFs from 2015 to 2016, a 4% increase that reflected the agency's intent to replenish its inspection cadres.⁷⁰⁶ In addition to internal training, Ibama also benefited (even if limitedly) from the political appointment of externals who possessed abilities and capacities that until then were not produced internally in the agency. The main example thereof is in the area of social communication. The public exams organized by Ibama in 2002, 2005, 2009, and 2013 did not require specific knowledge of social communication. A few servants with journalism degrees entered Ibama through exams, but once in office, they were not assigned tasks that would allow for the cultivation of journalistic skills. In this sense, the nomination of an experienced professional in environmental journalism to occupy a DAS position in Ascom brought an important injection of new know-how. His expertise with press relations and all the transformations these connections triggered in Ibama opened doors to institutional possibilities that would remain closed if the agency relied only on the knowledge prevalent among its governing coalition. Although on a smaller scale than in 2002, one can see that the diversification of educational and professional backgrounds (this time through qualified political appointments) helped Ibama to oxygenate its technical portfolio and enrich its organizational culture.

Political appointments – and this brings us to the last topic of the present section – are not always synonym for partisan interference in the bureaucracy. An episode that occurred during the Temer administration may help us to nuance different degrees of political interference, especially when contrasted with the state of affairs under Bolsonaro. When Ibama embargoed 15 slaughterhouses in Pará in the scope of Operation Cold Meat in March 2017, the reaction from the political world was immediate. Pará's vice-governor called the operation “an

⁷⁰⁶ BRAZIL. Ministério da Transparência, Fiscalização e Controladoria Geral da União. Relatório de Avaliação da Execução de Programas de Governo N° 69. Brasília 2017, p. 15.

undue interference by Ibama in the jurisdiction of Pará.” The state’s legislative council unanimously approved a letter of repudiation against the action. The municipality of Xinguara published a note expressing “its highest solidarity with representatives of the meat industry, rural unions, businessmen, ranchers and rural producers in general, for the unfortunate episode of Ibama seizing slaughterhouses in the region, which paralyzed the entire productive chain of the meat industry in southern Pará”. Two councilmen censured Ibama’s method for being truculent. A local environmental secretary stated that Pará’s meat industry “did not deserve the treatment received in the operation” and the embargos were disproportionate and unreasonable. Ibama’s action did not find support in the Judiciary either. A federal judge accepted JBS’ motion and canceled the embargos under the argument that the number of cattle heads purchased from irregular areas would be insignificant compared to the total amount of cattle slaughtered by the company.⁷⁰⁷

The discontent of farmers, businessmen, and local politicians with Operation Cold Meat was so intense that the Minister of the Environment, José Sarney Filho, recorded a (private but later leaked) video apologizing to the producers of South Pará, whom he called by the vocative “my friends.” Whereas emphasizing he was not against operations that promote legality, the minister said the operation happened in an inopportune and inadequate moment, and that he had not been informed of it by Ibama. He advised the owners of embargoed slaughterhouses to speak with Ibama’s task force in Marabá, Pará, not to seek amnesty, but to receive orientation on how to proceed.⁷⁰⁸

For some media outlets specialized in environmental journalism that reported the minister’s statement, this sounded pretty much like a disavowal of Ibama’s actions.⁷⁰⁹ To get the perception of the servants about the episode, I asked a senior inspector to what extent this attitude of Sarney Filho had an impact on Ibama’s performance, and in what sense it would be different from the disavowal of environmental enforcement endorsed by Bolsonaro. The respondent categorically stated that the minister’s statement had no dismantling effects. It was just a symbolic gesture towards the meat sector that did not change Ibama’s plans at all, very

⁷⁰⁷ BARRETO, Paulo *et al.* (orgs). Os frigoríficos vão ajudar a zerar o desmatamento na Amazônia? Belém: Imazon, 2017, p. 15, 83, 145-146.

⁷⁰⁸ ARANHA, Ana; LOCATELLI, Piero; GROSS, Anna Sophie. JBS comprou de fazendas flagradas com trabalho escravo e desmatamento ilegal (Repórter Brasil 07 June 2017) Available at: <<https://reporterbrasil.org.br/2017/06/jbs-comprou-de-fazendas-flagradas-com-trabalho-escravo-e-desmatamento-ilegal/>>. Accessed on 10 July 2023.

⁷⁰⁹ Grazing the Amazon (2018). Documentary film. Directed by Marcio Isensee e Sá. Produced by O Eco in partnership with Imazon. 49min. Available at: <[https:// http://sobapatadoboi.com/?lang=en/](http://sobapatadoboi.com/?lang=en/)>. Accessed on 17 July 2020.

differently from the explicit dismantling carried out by Ricardo Salles and Eduardo Bim, respectively appointed Minister of the Environment and president of Ibama by Bolsonaro.

For us it had no impact. Because his speech was a political speech. We comply with the law. Nothing has been reversed, everything we've done has been done. He didn't order anything to be undone. He made a political speech, thinking he had privacy there and he didn't. But it had no effect. We were complying with the law. Today is different. He goes there among the bandits; he makes a speech saying he won't let us chase them anymore. Then they go there and arm themselves to face us. Different. It's playing a political game and encouraging criminal hordes against state institutions. (Interview with a former Ibama servant).

The fact that Sarney Filho did not order Ibama to interrupt environmental law enforcement at the behest of agribusiness groups does not mean, however, that under Temer such practice did not blatantly occur in other ministries. The recent memoir published by federal police officer Alexandre Saraiva, who for ten years led investigations against environmental crimes in the states of Amazonas, Roraima, and Maranhão, narrates various episodes of political interference in detail. In one of them, he recalls how two MDB senators and Temer's close allies, Romero Jucá and Valdir Raupp, pressured the Federal Police to receive illegal loggers for an unofficial meeting after Operation Arquimedes seized 444 containers of illegal timber in Manaus, Amazonas.⁷¹⁰

We can arrive at the conclusion that key actors nominated to the Ministry of the Environment and Ibama's presidency managed to cushion political pressure from ruralist groups during the Temer government. Due to their commitment, anti-deforestation inspections in the Amazon were partially shielded from the widespread erosion that hit with more intensity other policy fields. This situation, however, changed completely in 2019 with the arrival of Jair Bolsonaro to power.

⁷¹⁰ SARAIVA, Alexandre; SAWITZKI, Manoela. *Selva: madeireiros, garimpeiros e corruptos na Amazônia sem lei*. Kindle edition. Rio de Janeiro: História Real, 2023, p. 144.

CHAPTER 10. DISMANTLING AND RESISTANCE (2019-2022)

If in the interim presidency of Michel Temer it would be more accurate to say that Ibama wasn't properly dismantled but actually managed to build state capacity in some areas while navigating in a national context of budget constraint, during the government of Jair Bolsonaro this was no longer the case. Because it was the main institution capable of constraining the unbridled expansion of agribusiness, Ibama became the epicenter of dismantling attempts in the environmental policy field. The hatred distilled by the Bolsonarista coalition against the agency bears a proportional relationship to the latter's hard-won proficiency in environmental protection. Ibama could no longer operate "at the margin" of the general scenario of policy erosion, but was now brought into the eye of the hurricane and became one of the main targets of the Bolsonarista anti-democratic assaults.

As with almost everything in the Bolsonaro government, the official position of the Presidency towards other institutions was marked by a crooked personalism. Bolsonaro did not seek to dismantle Ibama only because his constituency profits from the conversion of forest into pasture or mining sites. He also persecuted Ibama with special diligence because in 2012, when he had already been a congressman for years, the agency fined him BRL 10,000 for illegal fishing in a protected area in Rio de Janeiro. One year later he proposed a bill in the House of Representatives to prohibit environmental servants from carrying out weapons. Not satisfied, three months after taking office he dismissed the Ibama inspector who fined him from a DAS position. Bolsonaro's personal grudge against the institution did not end there: the already cited memoir by Alexandre Saraiva reveals how this animosity was central to cabinet-formation choices. The police officer was probed as a possible name for the Ministry of the Environment. Saraiva attracted Bolsonaro's attention solely because he led an anti-corruption operation in Rio de Janeiro in 2006 that resulted in the arrest of 25 Ibama agents. It did not matter that the operation had been carried out jointly by Ibama leaders and members of the Workers Party government, like Marina Silva, to rid the institution of corrupt agents. All that Bolsonaro's short-breathed thinking could put together was: if the guy arrested Ibama people, he must be one of ours.⁷¹¹ This gives a sense of how strongly Bolsonaro antagonized Ibama from the outset.

That being said, our objective in this chapter is to unveil (1) what strategies were employed by the Bolsonaro administration to specifically dismantle Ibama's organizational capacity and (2) how the agency's servants reacted to dismantling. It is not our intention to

⁷¹¹ SARAIVA, *op. cit.* p. 54.

provide a deep analysis of the roots of anti-environmentalism within Bolsonarism (broadly considered as an ideology or social movement). Apropos of this linkage, it should suffice to say that Bolsonaro's campaign raised anti-environmentalism as a central flagship, successfully channeling kickback demands from ruralist groups and taking advantage of pent-up anger against environmental protection, in general, and Ibama, in particular. The coalition that rose to formal power with his election has been characterized as "traditional developmentalists,"⁷¹² a group composed of sectors of the agribusiness, military, evangelicals, and business owners, supportive of conservative themes (traditional family, anti-gender campaigns) and neoliberal values (anti-leftism, market deregulation, privatization of public services, minimal state).⁷¹³

Key to understanding this apparently conflictual link between conservatism and libertarianism that fuels the traditional developmentalist coalition is the mythologization of self-sufficiency, which also lies at the heart of Bolsonarism's exclusionary claim against the democratization of access to power and resources among historically marginalized groups. As Jason Stanley insightfully noted, rural life claims to be "guided by an ethos of self-sufficiency, which breeds strength."⁷¹⁴ In the Bolsonarista ideology, the "state" is an enemy that should be dismantled and replaced with the "nation." The nation consists of "small ethnically or religiously pure communities composed of self-sufficient individuals working as a community," whereas the state represents "the redistribution of the wealth of hardworking citizens to 'undeserving' minorities outside the dominant ethnic or religious community[.]" For it is the nation that provides and produces, while the state usurps and expropriates. This yearning for self-sufficiency and freedom from the state shared by different varieties of authoritarianism can be traced back, in Stanley's account, to a certain social Darwinist conception of life as an endless competition for power, in which individual worth derives from triumphing over others in a fierce competition for resources.⁷¹⁵

We also do not aim here to provide a complete report of all measures attempted by Bolsonaro to erode environmental policy as a whole. His offensives have been massively

⁷¹² CAPELARI, Mauro Guilherme Maidana et al. Large-scale environmental policy change: analysis of the Brazilian reality. *Brazilian Journal of Public Administration*, 54(6), pp. 1691-1710.

⁷¹³ DA SILVA, Mayra Goulart; RODRIGUES, Theófilo Machado. O populismo de direita no Brasil: neoliberalismo e autoritarismo no governo Bolsonaro. *Mediações*, 26(1), 2021, pp. 86-107, p. 89.

⁷¹⁴ STANLEY, Jason. *How Fascism Works: the politics of us and them*. New York: Random House, 2018, p. 119.

⁷¹⁵ STANLEY *ibid.*

denounced in scientific⁷¹⁶ and grey literature,⁷¹⁷ as well as reports from controlling bodies⁷¹⁸ and pleadings in constitutional complaints.⁷¹⁹ Among the most scandalous examples were the attempt to merge the Ministry of Environment with the Ministry of Agriculture (although he gave up on the merger, he succeeded in transferring the Brazilian Forest Service from the first to the latter), the proposal to extinguish the duty to preserve any percentage of native vegetation in properties located in the Amazon (withdrawn from Congress' agenda after strong public criticism), and the discontinuation of all collegiate bodies within federal administration in which civil society took part, including Conama, PPCDAm's working group, and the Amazon Fund, as we saw in chapter 3. Important contributions have shown how the Bolsonaro government weakened legislation, restricted participatory forums, reduced budget for environmental policies, centralized decision-making, retaliated agents, introduced delaying conciliation hearings, imposed censorship on the servants, weaponized disciplinary procedures, unjustifiably dismissed and reshuffled servants, erased the performance of environmental agencies in official communication channels, appointed loyalists to top-level positions, and verbally attacked and threatened environmental servants, among other measures.⁷²⁰

⁷¹⁶ Cf. BARBOSA, Luciana *et al.* Actions against sustainability: Dismantling of the environmental policies in Brazil. *Land Use Policy* 104, 2021, 105384; PEREIRA, Eder *et al.* Brazilian policy and agribusiness damage in the Amazon rainforest. *Land Use Policy* 92, 2020, 104491, pp. 1-6; RAJÃO, Raoni *et al.* The risk of fake controversies for Brazilian environmental policies" *Biological Conservation* 266, 2023, 109447; CAETANO, Marco. Political activity in social media induces forest fires in the Brazilian Amazon. *Technological Forecasting & Social Change*, 167, 2021, 120676.

⁷¹⁷ Cf. CLIMATE OBSERVATORY. Passando a boiada: o segundo ano de desmonte ambiental sob Jair Bolsonaro (2021). Available at: <<https://www.oc.eco.br/wp-content/uploads/2021/01/Passando-a-boiada-1.pdf>>. Accessed on 12 October 2023; CLIMATE OBSERVATORY. A conta chegou: o terceiro ano de destruição ambiental sob Jair Bolsonaro (2022). Available at: <<https://www.oc.eco.br/wp-content/uploads/2022/02/A-costa-chegou-HD.pdf>>. Accessed on 12 October 2023; CLIMATE OBSERVATORY *et al.* The Ricardo Salles Fakebook: A Guide to the Falsehoods and Rhetorical Tricks of Brazil's Environmental Minister. Available at: <https://www.fakebook.eco.br/wp-content/uploads/2020/06/the-ricardo-salles-fakebook_en-1.pdf>. Accessed on 10 July 2023; HUMAN RIGHTS WATCH. Rainforest Mafias: How Violence and Impunity Fuel Deforestation in Brazil's Amazon (2019). Available at: <<https://www.hrw.org/report/2019/09/17/rainforest-mafias/how-violence-and-impunity-fuel-deforestation-brazils-amazon>>. Accessed on 12 October 2023.

⁷¹⁸ Cf. BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019.

⁷¹⁹ Cf. CARNEIRO, Rafael de Alencar Araripe *et al.* Petição inicial nos autos da ADO 59, ADPF 747, e ADPF 755 junto ao Supremo Tribunal Federal, 2020. Available at: <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20201111_ADPF-760_application-3.pdf>. Accessed on 10 October 2023.

⁷²⁰ ARAÚJO, Suely. Environmental Policy in the Bolsonaro Government: The response of Environmentalists in the Legislative Arena. *Brazilian Political Science Review* 14(2), 2020, pp. 1-20; FONSECA, Igor *et al.* Deforestation (lack of) control in the Brazilian Amazon: from strengthening to dismantling governmental authority (1999-2020). *Sustainability in Debate* v.13, n. 2, 2022, pp. 12-31.

Multiple concepts have been proposed to make sense of this vast array of dismantling assaults, such as bureaucratic harassment,⁷²¹ autocratic infralegalism,⁷²² institutional hardball,⁷²³ democratic backsliding,⁷²⁴ and environmental populism.⁷²⁵ When it comes to the task of theorizing confrontational attitudes of the bureaucracy vis-à-vis politicians, multiple terminologies have also been suggested, such as administrative resilience,⁷²⁶ bureaucratic politics,⁷²⁷ and guerilla government.⁷²⁸ Each of these conceptual propositions sheds light on different facets of the phenomena. In the remainder of this chapter I give preference to the pair “authoritarian dismantling” and “bureaucratic resistance,” as discussed in the theoretical chapter above. Let us then examine the transformations made by Bolsonaro and his cabinet in Ibama, as well as the reaction of the servants thereto.

10.1 Authority: neutralization of the doctrine of deterrence

Bolsonaro appointed two lawyers to lead the Ministry of Environment and Ibama, Ricardo Salles and Eduardo Bim. They introduced changes strategically aimed at neutralizing the pillars of the doctrine of deterrence, targeting the agency’s authority, nodality, treasure, and organizational tools. Four modifications, in particular, had a highly obstructive potential to Ibama’s authority: introduction of conciliation hearings and other procedural changes in sanctioning administrative procedures, *de facto* prohibition of destroying equipment, subordination of Ibama’s first to the Army and later to the Federal Police, and cancellation of public calls for indirect fine conversion.

⁷²¹ CARDOSO JR., José Celso *et al.* (org.) *Assédio Institucional no Brasil: Avanço do Autoritarismo e Desconstrução do Estado*. Campina Grande: EDUEPB, 2022.

⁷²² VIEIRA, Oscar; GLEZER, Rubens; BARBOSA, Ana Laura. Supremocracia e infralegalismo autoritário: O comportamento do Supremo Tribunal Federal durante o governo Bolsonaro. *Novos Estudos*, v. 41, n. 3, 2022, pp. 591-605.

⁷²³ DE SÁ E SILVA, Michelle Morais; GOMIDE, Alexandre (eds). Introduction: The policy process in democratic backsliding: what have we learned from illiberal populist governments? In: *In the wake of illiberal populism: The policy process in democratic backsliding*. London: Palgrave Macmillan, forthcoming.

⁷²⁴ BAUER, Michael; BECKER, Stefan. Democratic Backsliding, Populism, and Public Administration” *Perspectives on Public Management and Governance* 3:1, 2020, pp. 19-31.

⁷²⁵ MENEZES, Roberto; BARBOSA JR., Ricardo. Environmental governance under Bolsonaro: dismantling institutions, curtailing participation, delegitimising opposition. *Z Vgl Polit Wiss*, 15, 2021, pp. 229–247.

⁷²⁶ BAUER, Michael; PETERS, Guy; PIERRE, Jon. Pathways to administrative resilience: public bureaucracies ruled by democratic backsliders a transnational challenge. European University Institute, 2021, doi: 10.2870/752884.

⁷²⁷ ALLISON, Graham; HALPERIN, Morton. Bureaucratic Politics: A Paradigm and Some Policy Implications. *World Politics*, v. 24, 1972, pp. 40-79.

⁷²⁸ O’LEARY, Rosemary. *The Ethics of Dissent: Managing Guerrilla Government*. 3rd edition. New York: SAGE, 2020.

Introduction of conciliation hearings and other procedural changes

As we already saw, the sanctioning administrative procedures judged by Ibama have never been exactly praised for their speed and efficiency. From 2013 to 2017, the average duration of a procedure, from the issuance of the infraction notice until its conclusion, was 5 years and 2 months.⁷²⁹ Moreover, they resulted in a derisory percentage of fine collection: between 2008 to 2011, only 0.7% of the total value of the fines applied was indeed paid.⁷³⁰ The main reasons for the sluggishness in judging procedures and difficulty in enforcing fines were, in times of democratic normality, personnel deficit (in 2018, around 130 in-house servants and 40 outsourced workers were assigned to the task)⁷³¹ and the various wealth protection mechanisms that perpetually postpone the judicial attachment of assets.⁷³² Under the Workers Party administrations and Araújo's management, measures were taken to remove these bottlenecks and streamline the procedures: instances of appeal were extinguished, means of summoning and notifying the offender were simplified, maximum and minimum values of fines were increased.

Breaking away from the previous pattern of incrementalism, Bolsonaro and his cabinet introduced a set of procedural changes in the sanctioning administrative procedure with the aim of completely obstructing environmental law enforcement. One of the methods that proved to be the most efficient to achieve that goal was the creation of a new conciliatory phase within Ibama's sanctioning administrative procedure. This meant that after writing the inspection report, Ibama had to notify the offender to participate in a meeting, until which any enforcement measure was suspended. The 20-day period for the offender to present his defense does not begin to run until after the hearing. The only official purpose of the conciliation was to clarify to the offender his payment options, something that before was done by written notification. The division created to match the task also had the authority to annul infraction notices riddled with "irremediable nullities" and confirm or cancel the conversion of fines and all other precautionary measures (embargo, destruction, demolition, seizure, etc.).⁷³³ If the fine in question was equivalent to or higher than BRL 500,000, the conciliation hearing was held by a

⁷²⁹ BRAZIL. Ministério da Transparência e Controladoria-Geral da União. Relatório de Avaliação do Processo Sancionador Ambiental – Ibama, 2019, p. 7.

⁷³⁰ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Contas do Governo, 2012, p. 14.

⁷³¹ BRAZIL. Ministério da Transparência e Controladoria-Geral da União. Relatório de Avaliação do Processo Sancionador Ambiental – Ibama, 2019, p. 19.

⁷³² Another design failure of the sanctioning administrative procedure is not precluding the possibility of paying at a discount, allowing instead the discount to be applied at any time. This encourages the offender to only resort to payment after long years of trying to postpone the fine. BRAZIL. Ministério da Transparência e Controladoria-Geral da União. Relatório de Avaliação do Processo Sancionador Ambiental – Ibama, 2019, p. 69.

⁷³³ BRAZIL. Decree No. 9.760/2019, article 98-A.

centralized division created within Ibama's presidential office in Brasília. All its members were jointly designated by the Minister of the Environment and Ibama's president.⁷³⁴ If the fine was lower than BRL 500,000, the hearings would be held by the regional chiefs in the decentralized units.⁷³⁵

In theory, the hearings had to be automatically scheduled at least 30 days after the infraction notice was issued.⁷³⁶ What happened in practice was that, in the first two years after the conciliation phase was introduced, 7,000 hearings were scheduled but only five occurred,⁷³⁷ due to a lack of personnel and infrastructure. The staff allocated to organize the hearings had to accumulate the function of judging the procedures. If the work force was already insufficient before, even more so with this duplication of functions. In addition, Ibama's buildings have not been adapted to host mass hearings. As the respondents pointed out, Salles and Bim's inventive strategy would kill two birds with one stone: on the one hand, it brought the application of sanctions to environmental offenders to a complete halt. On the other, it created a scenario of generalized insecurity that enabled the opening of disciplinary investigations against the servants. Due to the prescriptive period for handling administrative procedures, there was the always present risk of facing disciplinary charges following a procedure's extinction caused by the confusion in scheduling hearings. The situation became even more dramatic in light of another measure introduced by Bim, which established that ordinary acts did not interrupt the counting of prescriptions. This decision put 45,000 administrative procedures, whose fine values add up to BRL 18.8 billion and correspond to about 75% of the amount receivable by Ibama, on the verge of extinction.

Then they created another instance to benefit the offender, the conciliation hearing. Imagine: I catch the guy in the middle of the Amazon jungle, and I fine him. The precautionary measures will only apply to the guy after he is called to a conciliation hearing. And what if he doesn't decide to pay the fine? If he doesn't decide to pay the fine, recover the damage, [only] from then on the infraction notice and the embargo become valid. This was one of the most bad faith procrastinations I have ever seen in my life. To take away something that was working, which wasn't perfect, but was working, and replace it with something that doesn't work. We had a system for judging infraction notices that counted on [around 120] analysts. If the government was thinking about the country's environmental good, it would open an exam call and put over 100 analysts there to judge the processes. But no, they create more instances. Who would run the conciliation meetings? The same guys who judge the procedures. It made the judging process even worse. That's what they did. Total dismantling of the machine, tools, and instruments. (Interview with an Ibama servant).

Instruments were placed within the legislation to hinder the inspection activity. Another serious factor was created: the nucleus of environmental conciliation. [...] In

⁷³⁴ BRAZIL. Ibama Administrative Act ("Portaria") No. 4.396//2019, article 18.

⁷³⁵ BRAZIL. Ibama. Normative Instruction N° 2/2019, article 9.

⁷³⁶ BRAZIL. Ibama. Normative Instruction N° 2/2019, article 49.

⁷³⁷ BRAZIL. Federal Supreme Court. Transcriptions of the public hearing in ADO 59, 2020, p. 290.

fact, these centers were never effectively structured to judge procedures in a timely manner. What can be seen is that they are accumulating and their statute of limitations is already beginning to expire. In other words, the crimes will no longer be punishable simply because of this. And then there is the cruelest factor in this story: those who are in the nucleus will be held responsible, those who were appointed to take care of these processes. The means were not given, but people are appointed there. Then the civil servant will simply respond to a disciplinary procedure because the statute of limitations has expired. These are the traps that were built. For those who work with inspection, there is great danger. If you screw up, it's direct dismissal. (Interview with a former Ibama and current ICMBio servant).

In addition to the delaying strategy of introducing conciliation hearings, Bolsonaro's team also restricted to the regional chiefs the competence to judge infraction notices in the first trial and to Ibama's president the competence to judge appeals.⁷³⁸ In other words, they centralized the authority to judge all infraction notices in only two politically appointed figures, to ensure maximum control over the outcome of sanctioning procedures. Even if a case moved forward from conciliation to the judgment phase, it would probably end up being judged by Bim or a loyalist regional chief.

Another procedural change made by Bolsonaro's team was to consider invalid the notification of environmental offenders by public notice to present final allegations in cases where it would be possible to locate them. According to the new rule, all summons and notifications addressed to the offender must be sent by post with acknowledgment of receipt or "by another valid means that ensures the certainty of his knowledge."⁷³⁹ Before, only the first summon had to observe these conditions; all subsequent communications with the offender could be virtual.⁷⁴⁰

Finally, a joint regulation enacted for Ibama and ICMBio established a 10-day deadline for environmental inspectors to write and deliver the inspection report, counting from when the infraction notice was issued in the field, at the risk of disciplinary sanctions. In the first version of the regulation, modified due to protests from the agents, the deadline was 5 days. Two consecutive disapprovals of the inspection report by an inspector's hierarchical superior also became punishable by disciplinary sanctions. On top of that, chiefs appointed by Bolsonaro interrupted the hiring process for the software that supports the electronic system of inspection documents. This resulted in the obstruction of fine applications for almost one year. As stated by the interviewees, many servants decided to leave the inspection area for fear of persecution, which was exactly the intention behind the measures.

In this joint normative instruction that came about, in the first version I would have 5 days to deliver a report. I go there, I issue the infraction notice, I have 5 days to deliver

⁷³⁸ BRAZIL. Ibama. Normative Instruction Act No. 2/2019, articles 11 and 12.

⁷³⁹ BRAZIL. Decree No. 9.760/2019, articles 95-A and 113.

⁷⁴⁰ BRAZIL. Decree No. 6.514/2008, article 122.

the report. This created such a commotion inside ICMBio that a second ordinance rectified the first version and [the deadline] remained 10 days. But even so, we go to the field for 20 days, theoretically on the 10th day we have to go back to our activities and make the report, because otherwise you miss the deadline. And what is established in the joint normative instruction is that if you don't deliver the report within 10 days, you are directly subject to disciplinary procedures. You make a report within the deadline and send it to your boss. Then, for some reason, the chief disagrees with your report and sends it back to you to make corrections. You make the corrections, send it on time, everything is correct. Then it arrives again for re-analysis by the department chief or the inspection coordinator, the hierarchical superior. If he doesn't agree with your report the second time you sent it back, guess what? Disciplinary procedure. Surely I have to guess what the boss will like to be written in the report. [...] Many people left inspection because of this so-called joint normative instruction that came out of ICMBio and Ibama with the Ministry of the Environment. (Interview with a former Ibama and current ICMBio servant).

They took away our system that was working, saying it was obsolete. They put the most modern system on the cellphone that didn't work. This went on for more than a year without anyone being fined. (Interview with a former Ibama servant).

There was even an interruption of the software contract in the middle of this process that generated a CGU audit in which the Planning Director simply interrupted an essential software contract. What was half-finished in the system remained half-finished for eight months until a new contract was obtained. This was the work of this administration, to disrupt the contracts. It was at this point that I left office because it became unfeasible. Everything resulted in disciplinary procedures. That took the contract away from the main tool of inspection. Support was interrupted, and since implementation was done in a hurry, there were still many defects. (Interview with an Ibama servant).

De facto prohibition of destroying equipment

Once the application of fines was paralyzed through procedural changes in the administrative processes, to consummate the dismantling of Ibama's doctrine of deterrence it was still necessary to neutralize its most impactful enforcement instrument: the destruction of equipment. Despite publicly condemning the measure as "arbitrary" on numerous occasions to please supporters,⁷⁴¹ Bolsonaro never revoked the presidential decree that regulates its use by Ibama. An internal order restricting the possibilities of destruction was drafted but its enactment was held back, for reasons still unknown. Some interviewees believed this would damage Brazil's international image; others said an infra-legal restriction would be innocuous because there is already a provision for destruction, even if more generic, in the Environmental Crimes Act itself. In my reading, it seems plausible to conjecture that the government preferred not to

⁷⁴¹ Bolsonaro: "Yesterday, the Minister of the Environment, Ricardo Salles, came to me with this information. He has already ordered the opening of an administrative process to find out who is responsible for this. One should not burn anything, machinery, tractor, whatever, that is not that procedure, that is not our orientation." "Who is the guy from Ibama who is doing it in your state? If you inform me who, I can..." JORNAL NACIONAL. Governo planeja mudar regras para destruição de equipamentos apreendidos pelo Ibama" (G1 15 April 2019). Available at: <<https://g1.globo.com/jornal-nacional/noticia/2019/04/15/governo-planeja-mudar-regras-para-destruicao-de-equipamentos-apreendidos-pelo-ibama.ghtml>>. Accessed on 10 July 2023.

revoke the internal rules on destruction because it reckoned the Supreme Court could overturn it as unconstitutional anyway.⁷⁴²

Instead, the strategy adopted by the government was to administratively persecute servants who participated in operations that resulted in destruction. In 2020, three Ibama agents were dismissed from leadership positions a few days after an operation inside the Apyterewa indigenous land, which prompted the incineration of an extensive arsenal of expensive machinery, was aired on national television. This was perceived as a “clear message of retaliation,” an attempt to discourage and demotivate other rangers from doing their duty. Another episode that made even more evident the extension of the government’s commitment to organized environmental crime happened in 2020, when Ibama ordered the suspension of an operation against illegal mining in the Munduruku indigenous land. Instead of communicating the operation’s findings to the Federal Police so that the illegal miners could be interrogated and arrested, Ibama requested the Air Force to give them a ride on official aircraft to have an exclusive meeting with Bolsonaro in Brasília.

The anti-minister defends the bandits. Defends the bandits. ‘The poor bandits were affected, fire the guy from Ibama.’ Another funny one was in Jacareacanga. It was very funny. The chief went there to destroy backhoes in the Munduruku [indigenous land], then the minister took the helicopter and went there. He ordered the operation to stop. Then he took the bandits, the miners, and instead of taking them to the Federal Police to have everyone charged with environmental crimes, he took them to Brasilia to talk to the President. He took the bandits in an official aircraft to talk to the President when he should have taken them to the jail of the Federal Police. (Interview with a former Ibama servant).

Director Olivaldi [military police officer appointed as director at Ibama], if you see the normative instructions, he did things to prevent the destruction. The guys go there and destroy everything, obviously it's going to get fucked up. I don't know to what extent this has been calculated as well. Now, the rebound effect will be different in a government that is against destruction and exists to stop it than in a government that fulfills its role. During Suely’s administration, when Ibama’s vehicles were burned, she closed all the sawmills the next day, do you understand? (Interview with a former Ibama servant).

Respondents emphasized that, during previous governments, it was not uncommon for them to be requested by different authorities to provide additional justification for specific acts of destruction. Sometimes a judge or a prosecutor informally asked the inspection chief if it was not possible to have acted otherwise; other times the inspector’s own hierarchical superior

⁷⁴² Especially in light of what Salles said in the fatidic “passar a boiada” ministerial meeting: “Everything we do we take a hit from the judiciary the next day, so we need to make an effort here while we are in this moment of tranquility in the aspect of press coverage because all we do is talk about Covid and push through to change all the regulations and simplify the norms [...]” G1. Ministro do Meio Ambiente defende passar ‘a boiada’ e ‘mudar’ regras enquanto atenção da mídia está voltada para a Covid-19 (22 May 2020). Available at: <<https://g1.globo.com/politica/noticia/2020/05/22/ministro-do-meio-ambiente-defende-passar-a-boiada-e-mudar-regras-e-simplificar-normas.ghtml>>. Accessed on 10 July 2023.

at Ibama demanded more proof and information about the operation, to be able to defend the agent from political pressure coming mainly from congressmen. Yet, it was only under Bolsonaro that Ibama's autonomy to destroy equipment was truly impaired, with concrete retaliation against the servants.

In Rondônia I once justified to the judge, kind of informally, 'why did you destroy these tractors?' [...] We must have, I don't know, more than a dozen recommendations from the Federal Ministério Público to promote the destruction of assets when you can't get them out, on their initiative. I always had a good relationship with the Federal Ministério Público. They once said, 'in some cases it is not possible to destroy, we have to see.' [I said] 'no, but if you leave it there the guy will use it again, he will.' 'Ok, we are going to recommend that you destroy it.' [...] In the Temer government I had to justify why I destroyed things, in the Dilma government as well. It is normal to have to justify it because the congressmen at the end of the process are calling the shots. He arrives at the Ministry of the Environment and goes to Ibama. The big difference in the Bolsonaro government is that Ibama was not treated as an autonomous agency, Ibama was treated as a secretariat of the Ministry of the Environment. [...] It happened several times in the Bolsonaro government, right at the beginning, do you remember that video of the senator from Rondônia talking to him on the plane: 'Is it to destroy goods, president?' 'It is not to burn anything.' That fateful video. That was one of the cases that I called the colleague in charge of the operation. I called and said 'man, put it on paper because I will have to justify it, you can be sure of that.' (Interview with an Ibama servant).

Subordination of Ibama to the Army and the Federal Police

Despite openly retaliating against servants who destroy equipment, Bolsonaro's team considered it important to put on a show of enforcement to the international community. To do that while simultaneously effacing Ibama's image and promoting the military's reputation, he issued a presidential decree assigning the Army to execute preventive and repressive actions against environmental crimes directed at illegal deforestation and combating outbreaks of fire in the Amazon. The legal mechanism that lent support to this assignment is a type of military operation called *Garantia da Lei e da Ordem* (GLO). According to the decree, Ibama's operational performance was "coordinated" by the Armed Forces. In practice, this meant an inversion of the previous chain of command, which enabled Ibama autonomy to choose targets, define timing, plan the strategy, and subsidiarily request operational help from the Armed Forces. Besides failing to reduce deforestation rates in the Amazon, the Army's task force issued half as many fines as Ibama, embargoed fewer areas, and systematically avoided the destruction of equipment.

We had already warned that it would not work, because the Army's vision of environmental protection, I will give you an example, is to stop a truck carrying logs on the highway. [...] My God, people, this is what we used to do here at the time of the IBDF. We don't do this anymore. We have to prevent the wood from being cut down, to be there while the guy is cutting down the wood. Strategically, this is totally wrong. It was this very cliché vision of environmental protection, let's say, that hindered our actions to combat crimes in the Amazon under the GLOs. (Interview with an Ibama servant).

In addition to their inefficiency in combating deforestation, the GLOs did not meet legal requirements. According to the law, the use of this instrument must be exceptional and have clear temporal, spatial, and teleological limits: it can only take place on an episodic basis, with the shortest possible duration, in a previously defined area, and to preserve public order and safety in situations provided for in art. 144 of the Constitution. Temporally, the operation was originally scheduled to last a month but was repeatedly extended for almost one year. Spatially, the operation covered the entire Amazon, an area that corresponds to 61% of the country. With regard to its objective, environmental law enforcement does not fit within the scope of public security, not even in a very extensive interpretation of art. 144. Under GLOs, the Armed Forces typically take the functions of police forces. Even though the latter has criminal jurisdiction over environmental offenses, as discussed at length in subchapter 7.1, they do not have environmental police power; this attribution is restricted to administrative agencies like Ibama and ICBMio. In other words, the Army is not legally authorized to apply fines nor precautionary measures of destruction, embargo, seizure, demolition, etc. The idea behind the GLOs was that the Armed Forces would merely “coordinate” Ibama’s actions. Clear communication flows and intelligible division of tasks, however, were never established. Statements by Ibama servants transcribed in a report published by the Federal Audit Court (TCU) give an idea of the deliberate confusion generated by the GLOs.⁷⁴³

It reached a point where Ibama indicated the priority targets for combating deforestation (with large indications of ongoing deforestation), and the Armed Forces changed planning to carry out other less impactful actions, such as barriers on roads to inspect timber trucks. (Statement by Ibama servant in TCU report).

I have not seen an operation without planning for many years, without targets defined in advance. There was so much uncertainty that the bases changed places 4 times in less than a month. The planned activities were inspections in logging companies, despite the fact that there was no timber specialist on the team and that this activity is not a priority, according to LC 140. The Armed Forces do not have the legal competence or training to work with environmental inspection. They did not accept suggestions from Ibama officials for choosing targets or strategies. (Statement by Ibama servant in TCU report).

They only removed seized material if it was in their interest and if it was donated to them. Ex.: trucks and tractors were seized, I requested [...] removal and deposit, they did not accept. I asked to remove the timber and receive it as a donation, and yes, they removed it from the area and received it. (Statement by Ibama servant in TCU report).

The Armed Forces chose the locations, not where deforestation was on the rise, but where they had Army barracks. Many targets that Ibama presented were rejected by the Army, since they involved mining, destruction of goods and equipment. (Statement by Ibama servant in TCU report).

⁷⁴³ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.41.

At best, one can say the Army's approach to deforestation resembled that adopted by Ibama before 2004: centered on volume and physical presence, without strategic planning, press communication, or intelligence work, in oblivion to the learnings incorporated into the doctrine of deterrence under PPCDAm. At worst, especially in light of evidence emerging after Bolsonaro left the presidency, it is becoming clearer that there was a corrupt branch of the Army benefiting from illegal mining in indigenous lands, deliberately obstructing effective inspection actions. Recent investigations have found that a group of military officials leaked confidential information about operations to gold miners and charged bribes for the movement of gold and drugs.⁷⁴⁴ Sometimes leakage was not so explicit but happened through indirect signs equally capable of hindering the secrecy of operations. In the Jacareacanga episode narrated above, for instance, the Air Force is being investigated by Ministério Público for having used the local airport in advance, which warned offenders beforehand that the municipality was a target of environmental inspection.⁷⁴⁵

Due to public pressure denouncing the failure of the Army's actions, the coordination of environmental inspection operations in the Amazon was in a second moment transferred to the Ministry of Justice, which put the Federal Police on the task. The management exercised by the Federal Police was described by Ibama servants as "closer," less bureaucratic and hierarchical, more sensitive to the difference of expertise held by both agencies, and allowing a better response to non-environmental crimes related to deforestation (e.g. firearm handling, human trafficking, money laundering, slave labor, land grabbing). Nonetheless, the insistence of the Bolsonaro administration not to return Ibama's autonomy and keep it subordinated to another institution in the exercise of its core competence resulted in a continued inefficacy of deforestation control actions.

It is obvious that the hallmark of our work over many years is exactly the opposite of all this. So, this government obviously would never let, in quotes, ecosocialists, as they say, lead environmental protection in the Amazon. It would also have to take into account the actions of the military, in Ibama and ICMBio, that bunch of military from São Paulo that practically implemented a military regime in a civilian organ. They submitted us to the Armed Forces as well, which is military management. And due to the failure of both things, both the management of the agencies by the military and the management of environmental protection by the military, they are increasingly running out of options and ended up at the Ministry of Justice, which, let's put it like this, are not military, but are also not civilian like us. There was a lot of prejudice against the work, against the very personification of the Ibama agent, who fined the president. [...] We believe they will never let us do our job. It was precisely because we had the freedom to do our job that a member of parliament was fined for illegal

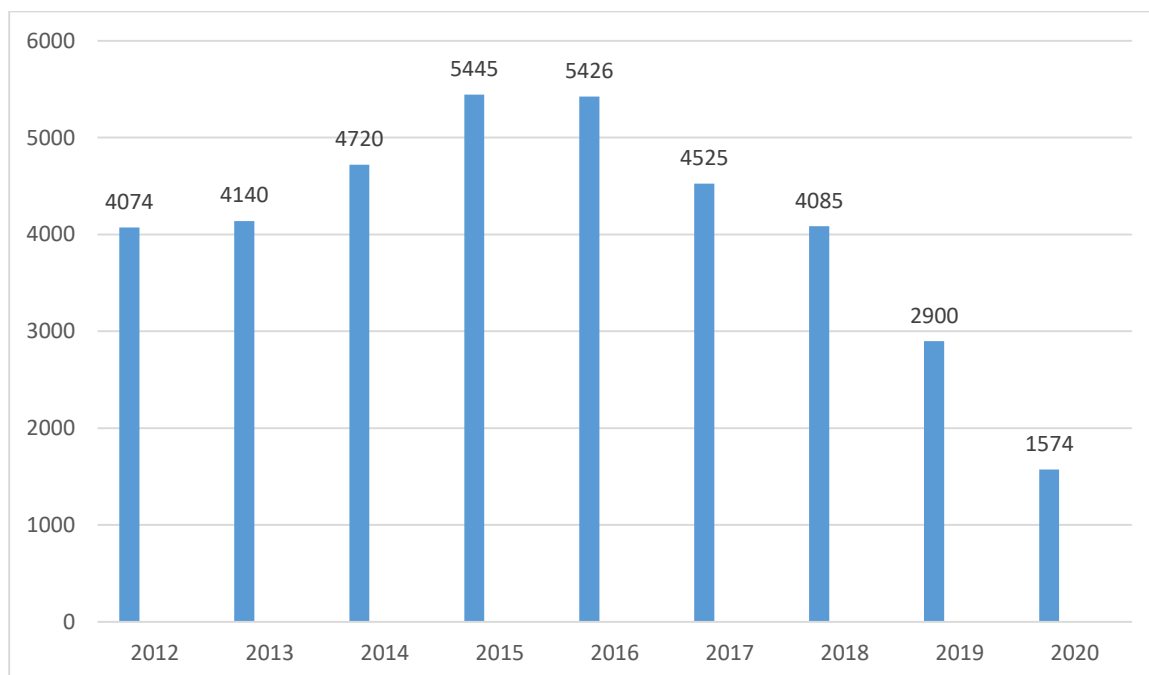
⁷⁴⁴ FOLHA DE SÃO PAULO. Relatório aponta militares comprados pelo garimpo na TI Yanomami no início da gestão Bolsonaro" (26 January 2023). Available at: <https://www1.folha.uol.com.br/cotidiano/2023/01/relatorio-aponta-militares-comprados-pelo-garimpo-na-ti-yanomami-no-inicio-da-gestao-bolsonaro.shtml?utm_source=meio&utm_medium=email>. Accessed on 10 July 2023.

⁷⁴⁵ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.41.

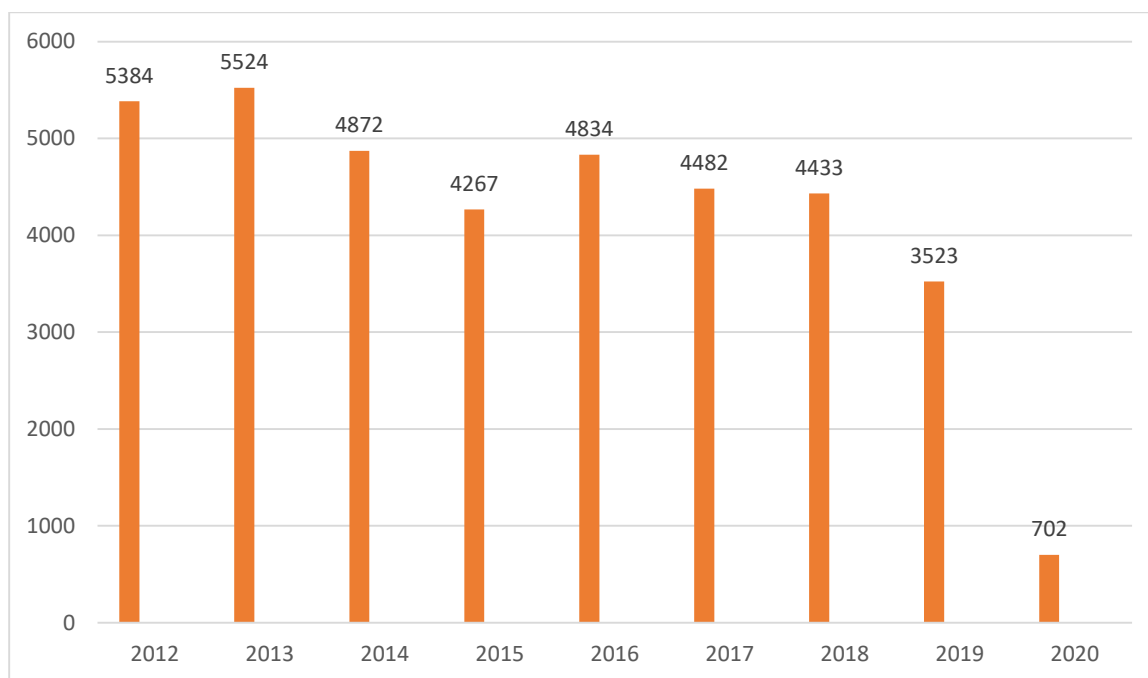
fishing in a fully protected area. If it wasn't for this autonomy, this wouldn't have happened. This autonomy is very harmful to those who have an extremely liberal vision of resource exploitation. (Interview with an Ibama servant).

One can see in the graphics below that between 2018 and 2019 there was a decrease in the number of infraction notices, embargos, and terms of destruction related to illegal deforestation in the Amazon.

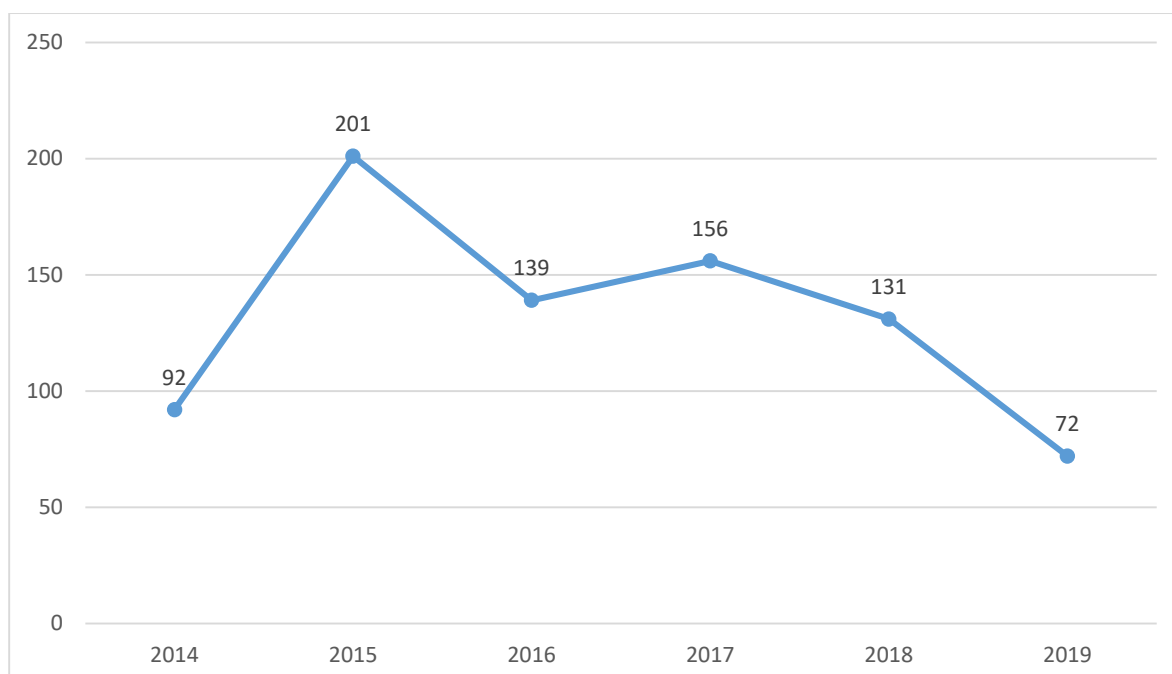
Graphic 4: Infraction notices issued against illegal deforestation in the Amazon



Source: CARNEIRO, Rafael de Alencar Araripe et al. Petição inicial nos autos da ADO 59, ADPF 747, e ADPF 755 junto ao Supremo Tribunal Federal, 2020, p. 35.

Graphic 5: Terms of embargo issued by Ibama

Source: CARNEIRO, Rafael de Alencar Araripe et al. Petição inicial nos autos da ADO 59, ADPF 747, e ADPF 755 junto ao Supremo Tribunal Federal, 2020, p. 36.

Graphic 6: Equipment destroyed by Ibama

Source: WERNECK, Felipe. Arquitetura da devastação (Intercept, 27 April, 2020). Available at: <<https://www.intercept.com.br/2020/04/27/bolsonaro-destruicao-maquinas-crimes-meio-ambiente/>>. Accessed on 10 October 2023. Figures include excavators, shovels, loaders, tractors, trucks, rafts, dredges, carts, trailers, motorcycles, pickup trucks, cars, and boats.

Cancellation of public calls for indirect fine conversion

In subchapter 9.1 we saw that Suely Araújo, who headed Ibama during Temer's interim government, managed to implement the indirect conversion of fines, an innovative modality of enforcement that offered violators the possibility of converting fines into funding for 34 pre-selected NGO-led projects for environmental recovery. All that was missing was signing the contract with the NGOs so that around BRL 1,1 billion could start to be redirected to benefit the São Francisco river basin in Minas Gerais and Bahia and quilombola communities in Piauí. When Bim was assigned president of Ibama, however, he canceled the public call, preventing the money from being allocated to the projects. Bolsonaro's cabinet attempted to include companies as eligible institutions to receive the money, but, as they did not succeed in carving out this loophole, the whole initiative was extinguished. The only project that was not discontinued was in the Southern state of Santa Catarina, because its design derived from a judicial agreement and withdrawing it would result in a millionaire debt for Ibama.

The only thing missing was signing the term of commitment with the non-governmental organizations and Bim annulled the public call, suspended it, revoked it. They only remain with the conversion of fines in Santa Catarina, in the Araucaria region, which was a judicial thing. Ibama lost a lawsuit of about two decades and the bill fell to us to pay. We received the judicial order to pay 100 million. Ibama's discretionary was 330. We received a court order to pay 100. We said, what can we do? Then we went to the judge, we had two meetings with the judge and the Public Prosecutor's Office, and we managed to transform this decision into one in which we would launch a public call to convert the fines, two calls of 17 million each and they accepted it. Why do they continue it until today? Because if they simply cancel the calls, they have to pay 100 million. So, this one they didn't suspend, they are doing some conversions directing the money to Santa Catarina, but because it was a judicial agreement. The rest is all stopped and I am so indignant. I don't know now, Carolina, but in 2018, Ibama had 38 billion in unpaid fines. 40% of this money could be used. [...] All that was missing was a signature. All that was left was to sign, everything was ready. Then they changed the rules a little bit, now they let companies. I really, legally, don't know how to justify a company that will make a profit with this, it doesn't make sense. You are paying a sanction and making a profit. To me, it doesn't make sense, but I am a bit of a purist in relation to the business world. Then Salles put companies in, which was what he wanted, but he didn't even go along with the companies. They didn't launch any more calls, everything is very slow. Really, if you ask what I think was left out, what could have worked and these people ruined was exactly the conversion. (Interview with a former Ibama servant).

As discussed above, scholars have identified three possible bureaucratic reactions to authoritarian interferences from elected politicians: working (adjusting to the new regime), shirking (slowing down policies), or sabotaging (frustrating program goals).⁷⁴⁶ Given how

⁷⁴⁶ Guedes-Neto and Peters, *op. cit.*

governmental inaction in combating deforestation is politically rewarded by agribusiness and mining groups that profit from expansion over forest areas, “shirking” was not an option to Ibama’s servants: slowing down policy implementation would precisely accelerate forest destruction and bolster Bolsonaro’s electoral gains. Strike, the instrument per excellence for protesting against the deterioration of working conditions, was also not an alternative to the agents, considering that the state’s omission in environmental law enforcement was the exact purpose of dismantling.

In such circumstances, continuing to work did not mean docile obedience to the regime. On the contrary, it meant direct contestation to Bolsonaro’s authoritarian agenda. In this sense, the tactics of resistance adopted by Ibama’s servants blur the distinction between work and sabotage. The main strategy employed by the agents to counteract the government’s attempt to neutralize Ibama’s doctrine of deterrence was to develop disguised, “low-profile” ways to continue performing their tasks:

Many of these operations that you probably followed were done in a “forced” way by the civil servant. Often in a way that was as distant as possible from the management, so that they could not hinder our work. [...] We carried out these operations against the will of the Army, against the will of [Ibama] itself. It was something like: ‘let’s go there, let’s do the work, let’s develop it in the way we want.’ Many times they could not deal with that, they could not prevent us from doing the fieldwork we planned. We started using our own work, you see? Working was our way of claiming. Doing what they didn’t want us to do, which was to work. (Interview with an Ibama servant).

Some rangers have continued to discreetly plan and execute operations off the management’s radar, taking all precautions not to draw much attention to their activities. This was done especially by mid-level inspectors, as servants who formerly occupied leadership positions were under stronger surveillance and many had been relocated to positions unrelated to inspection. Whereas from the standpoint of the Brazilian constitutional order their attitude of veiled confrontation can be interpreted as “working,” from the partisan perspective of Bolsonaro’s regime it was but a sign of disloyalty, insubordination, and sabotaging.

10.2 Nodality: censorship and whistleblowing

Considering the centrality of nodality tools to the amplification of deterrence, to accomplish the neutralization of Ibama’s doctrine it was equally necessary to undermine its media reach. With that aim, Bolsonaro’s cabinet dismissed the expert leading the communication office and relocated its team members to positions unrelated to social communication. In 2019 alone, the head of Ascom was changed four times, interspersed with intervals in which the position was simply left vacant. Three other strategies to undermine

Ibama's nodality were adopted: censorship, disqualification of Inpe and attempts to privatize satellite services, and digital erasure.

Censorship

One of the first actions taken by Bim was to enact an internal Code of Ethics – before, Ibama adopted a general framework applicable to all federal servants. The new code prohibited the agents “to speak on behalf of the institution without authorization by the competent authority.” Although enveloping itself as zeal for the institutional image, this rule aimed at imposing previous and generalized censorship on the servants, who were forbidden to communicate with journalists.

What is the mistake today? Ibama's communication office is gagged. The agency's communication policy is not to have a communication policy. The policy is nobody can say anything. There is no transparency. [...] Who has no fear of the truth, no fear of working rightly, is not afraid of the press. I'm not. Transparency was the rule. Today, gag is the rule. This is a terrible strategic mistake. (Interview with an Ibama servant).

Communication is a very important part of our strategy. As soon as the government changed, we were forbidden to talk to the press. Ibama servants do not give interviews. [...] They don't want to talk to the press because they are afraid of retaliation. [...] Ibama does not answer anything. If you ask or make a request to talk to me formally, you will not get authorization, do you understand? I am talking to you here at my own risk. (Interview with an Ibama servant).

If you don't disclose, you lose dissuasion. That's what has happened in the last administration. It happened a lot. They created a rule that the agent could not disclose anything without Ascom's authorization. They bureaucratized it so much that many times the operation is over, there is no more time to disclose. Communication has its timing; we cannot lose the timing. (Interview with a former Ibama servant).

There is a huge legal debate on the constitutionality of norms that condition public manifestations of civil servants to prior authorization from the hierarchical superior. In 2023, the Supreme Court validated a rule that restricts federal public attorneys (*advogados-gerais da União*) from speaking in the press or through other means of disclosure on matters pertaining to their duties, unless expressly ordered or authorized by the Federal Attorney General. Academic speech and communication to competent authorities about illegalities of which the attorney has knowledge due to his position were both excepted from the restriction, under the principles of freedom to lecture and functional duty. According to the reporting Justice, the limitation refers only to information about judicial or administrative proceedings in progress, procedural strategies, lines of action and “sensitive topics.”⁷⁴⁷

⁷⁴⁷ Federal Supreme Court decision in the claim of constitutionality ADI 4652.

This recent Supreme Court decision, although not applicable to Ibama, opened a dangerous precedent that, to some extent, retroactively legitimates the restriction imposed by Bim. In times of democratic normality, for sure, it is possible to guarantee some democratic control over the Federal Attorney General's conduct. If she systematically and unjustifiably refuses all requests by subordinate attorneys to speak to the press, she could be investigated and held accountable. In contexts of democratic backsliding, however, leadership positions are typically held by loyalists and instances of control are severely undermined. At such times, it is precisely the base of the bureaucracy that can offer resistance to autocratization, in defiance of politically appointed bosses. Rules like the one validated by the Supreme Court can create serious institutional weakness if carried to other parts of the administration. During the Bolsonaro government, Ibama's Ascom simply refused to establish any kind of communication with the press, purposefully frustrating the effectiveness of deterrence means and leaving the servants at the mercy of the authoritarian will of Bolsonarists.

Disqualification of Inpe and attempts to privatize satellite services

In August 2019, Inpe's president, Ricardo Galvão, was dismissed by direct order of Bolsonaro. The layoff occurred a few days after Inpe's annual public release of Amazon aggregated deforestation rates. On the occasion, Bolsonaro stated that the data divulged by Inpe "might not be true," was a "campaign against Brazil," and that if Galvão had "respect" and "patriotism," he would have warned "his immediate chief, the Ministry of Science" before the public release of the data, because it had put Brazil in a "complicated situation."⁷⁴⁸ Galvão had been denouncing the deterioration of the communication between Inpe and Ibama since the beginning of Bolsonaro's term.⁷⁴⁹ Salles also publicly discredited Inpe's data and spread misinformation about Prodes and Deter: "the data is very generic, we don't know if deforestation is happening inside conservation units, inside indigenous lands, in private areas, in a percentage higher or lower than the legal reserve. [...] [Inpe] only provides the general percentage of deforestation, not the qualification of this deforestation."⁷⁵⁰

⁷⁴⁸ LIS, Laís. Bolsonaro diz que divulgação de dados sobre desmatamento prejudica o Brasil (G1, 21 July 2019). Available at: <<https://g1.globo.com/politica/noticia/2019/07/21/bolsonaro-diz-que-divulgacao-de-dados-sobre-desmatamento-prejudica-o-brasil.ghtml>>. Accessed on 10 April 2021.

⁷⁴⁹ GRANDELLE, Renato. Diretor demitido do Inpe diz que não conseguia falar com Ibama para alertar sobre desmatamento (O Globo, 03 August 2019). Available at: <<https://oglobo.globo.com/sociedade/diretor-demitido-do-inpe-diz-que-nao-conseguia-falar-com-ibama-para-alertar-sobre-desmatamento-23852267>> Accessed on 10 April 2021.

⁷⁵⁰ Tribunal de Contas da União, "Relatório TC 038.045/2019-2" (2019) 22.

At the same time that the Bolsonaro government sought to disqualify Inpe's work, it also made attempts to hire private foreign companies to provide satellite services to monitor Amazon deforestation. As Pereira et al. have pointed out, the government allocated BRL 179 million (almost 50 times Inpe's annual budget) to buy a satellite, whose radar sensor operates at a frequency inadequate to monitor dense forests, from the Finnish company Iceye Oy. The Federal Police hired another firm for BRL 49 million to provide satellite orbital images from the American company Planet Labs Inc. to monitor deforestation and fires for one year. In both contracts, the bidding requirement was waived, under the justification that the service provided by the companies would be of unique expertise.⁷⁵¹ For no legitimate reason, the Bolsonaro government sidelined a national public institution that has received worldwide scientific recognition for nearly two decades and invited, at unreasonable expenditures and without transparent bidding, private foreign companies that did not even have the right technology for the task.

Sidelining Inpe is all the more nonsensical when one considers that, at the end of 2019, the agency launched an even more refined version of its satellite systems to identify deforestation in real-time: Deter Intenso. We saw in subchapter 8.2 that in 2015 the satellite system on which Ibama relied to map deforestation had already been significantly improved with the creation of Deter-B, which was able to identify changes in forest cover with a minimum area close to 1 hectare. However, Deter-B alerts could arrive with delays of up to 15 days. To circumvent this situation, at the end of 2019 Inpe, in partnership with Ibama, developed Deter Intenso, a complementary version of Deter-B designed for critical deforestation hotspots. The new technology brought a fivefold increase in spatial resolution (from 56 meters in Deter-B to 10 meters in Deter Intense) and temporal resolution (from every 16 days in Deter-B to every 2 days in Deter Intense).⁷⁵²

Another shady case regarding the provision of satellite services in the Amazon and promiscuous public-private relations during the Bolsonaro period involved Elon Musk's Starlink. Investigative journalists have found that Bolsonaro interfered in the National Telecommunications Agency (Anatel) to authorize Starlink satellites to operate in Brazilian territory. Whereas the alleged purpose of Starlink's presence in the Amazon was to provide internet for 19,000 schools in remote areas (as jointly announced by Musk and Bolsonaro at a meeting in São Paulo), by 2023 only 3 schools in the state of Amazonas had received the

⁷⁵¹ PEREIRA, Ana *et al.* Populism and Dismantling of State Capabilities in the Brazilian Environmental Sector. Paper presented at the 3rd International Workshops on Public Policy. Budapest, 2022.

⁷⁵² Tribunal de Contas da União, "Relatório TC 038.045/2019-2" (2019) 63.

service. The main users of Starlink’s internet are actually illegal miners and other types of criminals operating in indigenous lands. In 2023, Ibama seized 11 Starlink internet kits in a mining camp inside Yanomami land. Indigenous leaders have denounced that internet provision was vital for mining to gain unprecedented scale and connectivity in the region.⁷⁵³

Digital erasure

In addition to censorship and the attempt to sideline Inpe’s data while privatizing satellite services, Bolsonaro and his cabinet deliberately sought Ibama’s “digital death.” Instead of allowing the communication office to regularly use the agency’s institutional profile on social media, Salles constantly made use of his personal Twitter account to announce official decisions, a strategy of authority impersonation also deployed by Bolsonaro. Even when formal channels were allowed to publicize operations, the press releases often downplayed and omitted Ibama’s participation while promoting an exaltation of the Army. There was a significant reduction in the publication of news related to inspection on Ibama’s website.⁷⁵⁴ Informative content was erased from the agency’s pages and the servants’ access to them was removed.

The Code of Ethics enacted by Bim specifically to Ibama (Portaria No. 2,534/2019), later complemented by another internal ordinance (Portaria No. 560/2020), equated personal social media with institutional communication for purposes of surveilling what the servants post on their personal social media profiles. Under the new rules, dubbed “Gag Laws” by the press, agents could not expose on social networks and alternative media material that damages the image of Ibama and its personnel. Denouncing the misdeeds of Ibama’s leaders would, therefore, be interpreted and punished as institutional misconduct, which intimidated the servants from alternatively using their individual profiles to publish anything about what was going on in the agency. Denying Ibama an institutional voice in the digital space, a “right to respond,” as one interviewee put it, made it easier for “contrary narratives” about environmental law enforcement “to run wild” and prevail.

⁷⁵³G1. Antenas da Starlink são apreendidas em garimpo ilegal na Terra Yanomami (15 March 2023). Available at: <<https://g1.globo.com/tecnologia/noticia/2023/03/15/antenas-da-starlink-sao-apreendidas-com-garimpeiros-em-terra-yanomami.ghtml>>. Accessed on 10 July 2023.

⁷⁵⁴ Tribunal de Contas da União, “Relatório TC 038.045/2019-2” (2019) 53.

To counteract the dismantling of the agency's ability to communicate with society, Ibama's servants employed three main tactics: strengthening the servants' associations as spokespeople, activating long-cultivated alliances with servants of other law enforcement agencies, and mobilizing anonymous whistleblowing channels to voice harsh criticism.

Strengthening associations

Ascema Nacional, Ibama servants' association, became a focal venue to publish open letters, request data from higher officials, mediate contact with the press, and collectively defend the agents from abusive punishments in formal administrative procedures. Through the association, for instance, the servants surveyed all the retaliatory denunciations made by Bolsonaro's appointees occupying high-rank positions in Ibama and filed a complaint of collective institutional harassment before the Public Ministry of Labor.

I ended up joining Ascema Nacional because we really needed spokespersons, because of our difficulty as public servants to act and do our work. [...] In 2019, 2020, 2021 and 2022 there were four open letters, very formal, with more than 600 signatures of inspection employees pointing out problems, suggestions, solutions to be adopted and demanding other things. None of our requests were met from the beginning. When they threatened to do a GLO we said 'look, it won't work.' The [letters] talked about Ascom, that we need autonomy, everything was said, everything. There is no way they can allege ignorance about anything, because these letters are extremely clear in pointing out the problems and even the solutions. None of them were considered. The military director said he was going to wipe, excuse the expression, but he was going to wipe his ass with it because it was useless. He said this to several people, and it revolted us. Anyway, we never sat down with the minister to talk. We have already sent him a letter at the beginning of last month, this new minister, with whom we believed we would have a little more dialogue than with Salles. Even so, this guy did not receive us. (Interview with an Ibama servant).

Although the four open letters signed by more than 600 employees did not succeed in sensitizing the leadership to the points made by the servants, they helped to raise awareness in society about what was happening inside the agency and to environmental policy in general.

Informal inter-institutional alliances

After the episode in which three rangers lost their positions for participating in an operation aired on national television, Ibama's servants began to test another tactic to communicate with society: mobilizing informal alliances with servants of other institutions, especially federal police chiefs, and requesting shielding for their media appearances. Sometimes this support had the physical sense of standing next to the Ibama servant while the journalistic interview was being filmed.

To keep the institution alive, we talked to reporters, explaining 'something is happening in such and such place, it is important that you pay attention to this, ok?' We also talked to them in an informal way, to try to make sure that the information

about our work would reach people. [...] Even so, we kept on working, we kept on forcing the execution of our work. And making information reach reporters. [...] You may have seen [...] giving an interview on [...], but that was because a chief police officer said 'you can talk, I'll handle it.' [...] The police chief said 'man, show up!' Because he knew they were trying to erase us. What happened a week later was that the police chief was changed again. (Interview with Ibama servant).

What we manage to do in an alternative way is to get involved in the operations of other agencies. When I gave an interview last year in an operation I was coordinating in the [...] indigenous land, I did it because there was a [...] coordinator on my side with me. I was only able to speak because he was an authority authorizing me to speak there. With [...] was the same thing. We were always in the vacuum of other institutions. (Interview with Ibama servant).

Not always the backup provided a guarantee against retaliation, as neither the Federal Police was immune to summary dismissals and reshufflings at the behest of Bolsonaro and his allies. That notwithstanding, at the very least it added a layer of cushioning against the rage of Ibama's appointed leaders, charged by the government with finding culprits. In other situations, inter-institutional backing took the form of recommendations for the destruction of equipment, in the case of Ministério Público. When the Federal Police was in charge of coordinating environmental law enforcement, it also demonstrated support for Ibama's methods by taking the lead in actions of destruction in joint operations with Ibama.

We must have, I don't know, more than a dozen recommendations from the Federal Ministério Público to promote the destruction of assets when you can't get them out, and on their initiative. I always had a good relationship with the Federal Public Prosecutor's Office.

Every time [Bolsonaro] said he would end this story of destroying equipment, that nobody was going to burn anything anymore etc., what happens is that Ministério Público comes along with us. The Federal Police started burning equipment together with us. [...] The only agency I can honestly say that didn't support us very much at that time was Abin [Brazil's intelligence agency]. [...] Abin conforms to the government, it works for the government. We don't; we are servants of the Brazilian State. [...] Strength comes from this, from us having this respect from the international community and within the country as well, Ministério Público, Federal Police, Federal Highway Police, Federal Revenue Service. [...] The discourse was clear. When this government took office, it was going to end all of this. And it didn't end. Even the Federal Police is [destroying equipment] together with us; the Federal Police didn't do it before, and now the Federal Police is doing it together with us. I found this extraordinary. (Interview with an Ibama servant).

Anonymous and collective whistleblowing

To raise visibility of Ibama's efforts despite the digital erasure promoted by the Bolsonaro government, many servants intensified their presence on social media through their individual accounts by publishing less controversial material such as operation results and normative changes already available in the official gazette. Acid humor, sarcastic language, and fierce criticism of the government, the agribusiness and the Army were reserved for the

anonymous and collaborative Twitter profile *O Fiscal do Ibama*. With almost 190,000 followers and high metrics of engagement, the account worked both as a communication channel with society and a relief valve to momentarily alleviate the permanent psychological tension to which the servants were subjected. The satire, however, was not well seen by more senior agents, who feared the unpredictability of such digital tools and cautiously highlighted there is no evidence, apart from a tipster,⁷⁵⁵ that its idealizer was indeed an Ibama servant. Denouncing the abuses of the Bolsonaro administration in Ibama anonymously and collectively was a creative response to the management's attempts to dictate what the servants could or not post on their personal social media.

10.3 Treasure: budget reduction and suspension of the Amazon Fund

During the Bolsonaro government, Ibama's annual budget for inspection operations continued to shrink. In 2019, its authorized amount was BRL 85 million. In 2020, it dropped to BRL 66 million, covering the whole country and other topics beyond deforestation, such as wildlife protection, pesticide and pollution control, etc. As a comparison, the GLOs executed by the Army against deforestation in the Amazon cost BRL 550 million in two years. Moreover, the amounts disbursed by Ibama suffered an even more substantive decrease. In 2020, the agency had only executed 35% of its authorized budget. A difference that can be noted in relation to the previous period analyzed, therefore, is the ratio between authorized budget and disbursed budget. Whereas in 2016-2018 the authorized budget diminished but was almost completely spent, in 2019-2020 an even more starkly decreasing authorized budget was very parsimoniously used or, effectively, unused. Not even the BRL 50 million allocated to Ibama by a Supreme Court decision in the scope of the Car Wash Operation was completely used. By May 2020, only 35% of this amount had been spent.⁷⁵⁶

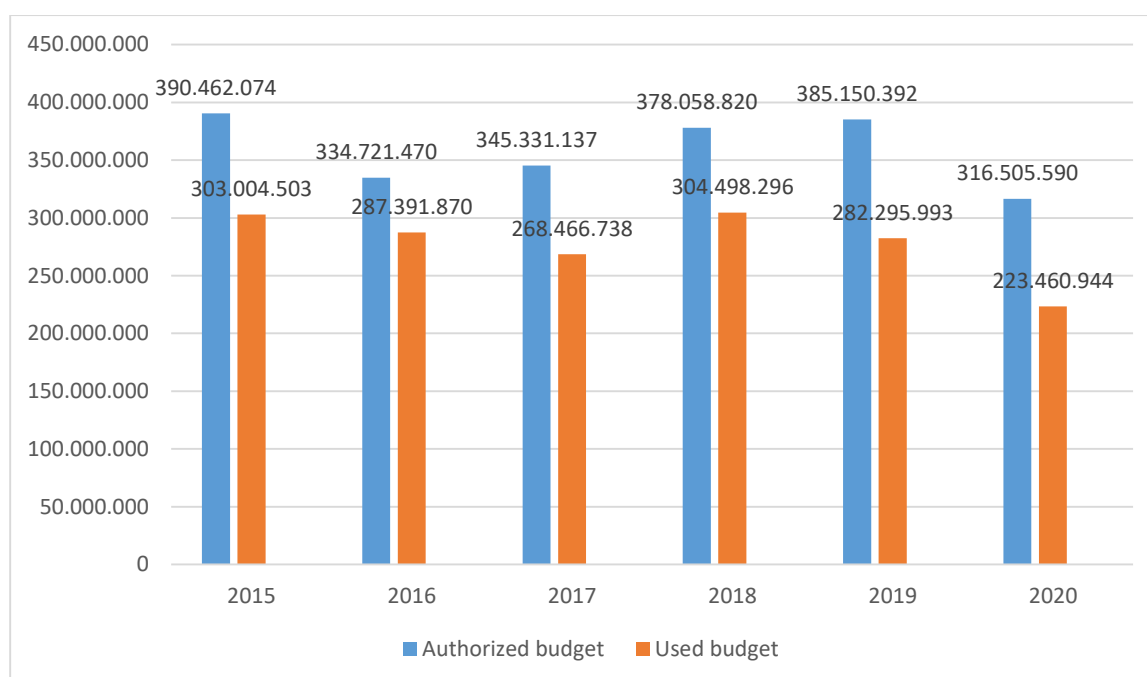
To make things worse, the extinction of the governance structure of the Amazon Fund led to the suspension of all projects dependent on the fund's donations, including Ibama's future contracts securing the continuity of the lease of inspection helicopters and trucks. The contracts that were already in force (Profisc I, Profisc II and Prevfogo) were not canceled. They provided essential support to keep operations going despite all assaults by the Bolsonaro government.

⁷⁵⁵ GIRARDI, Giovana. *Fiscais do Retrocesso* (Piauí 179, 2021). Available at: <<https://piaui.folha.uol.com.br/materia/fiscais-do-retrocesso/>>. Accessed on 10 July 2023.

⁷⁵⁶ CARNEIRO, Rafael de Alencar Araripe et al. *Petição inicial nos autos da ADO 59, ADPF 747, e ADPF 755 junto ao Supremo Tribunal Federal, 2020*. Available at: <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20201111_ADPF-760_application-3.pdf>. Accessed on 10 October 2023, p. 44.

However, as the plaintiffs in the constitutional claim against the dismantling of PPCDAM (ADPF 760) pointed out, an annual budget of BRL 66 million meant it would even not be possible to internalize the BRL 47 million paid annually by the Amazon Fund to lease inspection vehicles. If the amount was internalized, only BRL 20 million would be left to cover all other inspection expenses throughout the country during the year.⁷⁵⁷ This meant, in practice, the complete paralysis of all other inspection activities.

Graphic 7: Ibama's budget evolution 2015-2020 (in BRL million)



Sources: ARAÚJO, Suely. Proteção ambiental baseada em evidências? Evolução institucional, planejamento e execução orçamentária no Ibama. In: KOGA, Katália *et al.* (orgs.) *Políticas públicas e usos de evidências no Brasil: conceitos, métodos, contextos e práticas*. Brasília, Ipea 2022, pp. 725-745, p. 739; CLIMATE OBSERVATORY. Passando a boiada – o segundo ano de desmonte ambiental sob Jair Bolsonaro (2021), p. 10.

Although resistance against budget reduction was out of the reach of street-level bureaucrats, several interviewees reported that, given how their salary composition is structured, it is common for rangers to actually pay to work. As the daily allowance for on-site operations is insufficient to cover basic expenses in the field (especially considering that the payment of an additional hazard bonus introduced by Araújo was restricted by Bim), often the agents have to take out of their own income to keep the operations going. In light of the huge pay disparities among civil service positions in Brazil, where judges and prosecutors have direct

⁷⁵⁷ CARNEIRO *et al.* *ibid.*, p. 42-43.

lobbying channels on their behalf⁷⁵⁸ and can earn up to 80 times more than environmental analysts,⁷⁵⁹ this attitude can be considered a form of resistance. The commitment of Ibama rangers to environmental protection, which materialized in their readiness to pay part of field expenses out of their own pocket, was even spontaneously acknowledged by an Army official who occupied a leadership position in Ibama during Bolsonaro's term.

Today, for example, a per diem of BRL 177 is what an environmental agent earns, not to go to the field, but to supply his needs in the field. In other words: to pay for lodging and food. This [amount] is not sufficient. These days I went to Novo Progresso and paid BRL 155 at a little roadside hotel. But these men and women are there because someone has to do it and they do it. They do it. Many give money, complement by themselves. [...] Legislation says he should receive a per diem when he goes outside his headquarters, but the per diem does not supply the needs of that man and woman that are there. And they are there doing it. (Interview with an Army official appointed to a leadership position in Ibama).

They don't even earn a good salary. There was no hazard bonus, we created that. They put a gun in people's hands and don't give them any additional hazard bonus. How can you conceive something like that? They are having problems again to get paid; [the administration] is restricting a lot of who gets paid, even if the person is threatened every day. Some people are threatened every day. [...] How can you put a person in this position and not pay an additional hazard bonus? It doesn't make sense. Legally speaking, it doesn't make sense. So we made the additional payment by internal decision. I told everyone to go to hell, I didn't ask the ministry and ordered the payment. But it seems that now they are complaining that the number of people who receive it has decreased. (Interview with an Ibama servant).

10.4 Background: militarization of top positions and sabotage of public exams

With regards to the dimension that throughout this dissertation we have called background or organization *stricto sensu*, that is, the repertoire of practices and capacities shared by the agency's participants in the form of technical knowledge, Bolsonaro's cabinet employed a handful of strategies to undermine it as well. We will focus on three of them: hate speech, militarization of leadership positions combined with abuse of disciplinary procedures, and sabotage of public exams for hiring tenured staff.

⁷⁵⁸ On the remuneratory consequences of judicial corporatism in the state of São Paulo, see CARDOSO, Luciana Zaffalon Leme. *Uma espiral elitista de afirmação corporativa: blindagens e criminalizações a partir do imbricamento das disputas do Sistema de Justiça paulista com as disputas da política convencional* (Doctoral Dissertation) – Getúlio Vargas Foundation, 2017.

⁷⁵⁹ In 2023, the initial salary base of environmental analysts at Ibama was BRL 8,547. The average salary of federal judges was approx. BRL 34,125 and federal prosecutors was approx. BRL 34,657. See Wellington Nunes and José Teles, "A elite salarial do funcionalismo público federal: sugestões para uma reforma administrativa mais eficiente" *Cadernos Gestão Pública e Cidadania*, v. 26, n. 84, 2021, p. 7. Judges and prosecutors, however, are entitled to add the so-called "indemnity checks" [*verbas indenizatórias*] to their basic salary. In some (not so infrequent) cases, this maneuver to circumvent the constitutional salary cap multiplies salaries of judges and prosecutors to stratospheric amounts.

Hate speech

Bolsonaro and Salles verbally attacked Ibama and ICMBio servants in innumerable occasions. In 2018, already as elected president, Bolsonaro stated that servants of federal environmental agencies “who want to hinder progress” should “do it at the end of the beach.” *Ponta da praia*, the end of the beach, was a slang utilized by Brazilian military officials during the dictatorship to refer to a navy base in Rio de Janeiro where political prisoners were tortured and murdered.⁷⁶⁰ In a less menacing but equally belittling tone, Salles called environmental agents “bicho grilo chuchu beleza,” a derogatory slang translatable as “peacenik hippies.”⁷⁶¹ In a speech delivered at an agribusiness fair in 2019, Bolsonaro declared that he and Salles were studying ways to “cleanse” Ibama and ICMBio, whose employees “mistreated those who produce.” One of Bolsonaro’s catchphrases turned on saying he was going to end the “industry of fines” that oppressed the humble Brazilian rural men. Another common scheme mobilized by Bolsonaro was to imply that Ibama and ICMBio servants were not “true Brazilians,”⁷⁶² suggesting they followed a hidden globalist agenda pushed by developed countries that disguised trade protectionism as environmental concerns.

This strategy is very well thought. For them, we are NGO-lovers [*ongueiros*], we are left-wing trash or ecosocialists as they say. That kind of thing, you know? Because our environmental protection work is contrary to the government’s own ideology, which is to exploit natural resources, support illegal mining, to occupy the Amazon. (Interview with an Ibama servant).

The impact of such contemptuous political discourse was immediately felt by Ibama rangers in the field. Whereas in 2016, 2017, and 2018 the number of attacks on Ibama’s units, vehicles, or staff was respectively two, five and two, in 2019 and 2020 it increased to fifteen and twenty.⁷⁶³ In January 2022, two Ibama helicopters were burned in Manaus, Amazonas, on orders from a man involved in illegal mining in Roraima. The aircraft was parked in the courtyard of the city’s aeroclub. Helicopters, in the words of an interviewee, were the “missing trophy” for criminals operating in the region, who had already managed to burn trucks and units belonging to Ibama. Moreover, in the municipalities where Bolsonaro and his allies visited and uttered hate speech against environmental agencies, deforestation grew even more intensely than the regional average. The municipality of Cujubim in Rondônia, for instance, experienced

⁷⁶⁰ GRANDELLE, Renato. Servidores ambientais denunciarão Bolsonaro à ONU (O Globo, 3 November 2019). Available at: <<https://oglobo.globo.com/sociedade/servidores-ambientais-denunciarao-bolsonaro-onu-24059506>> Accessed 5 April 2021.

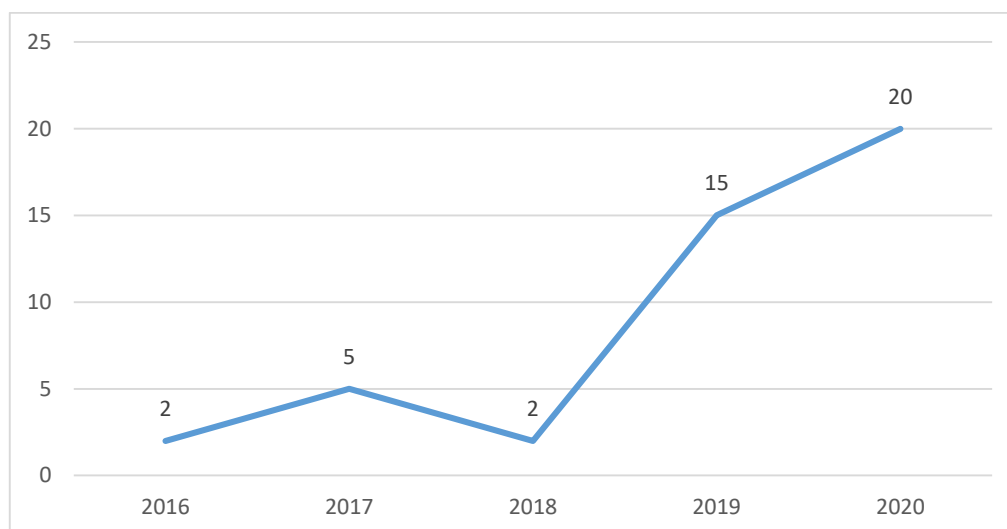
⁷⁶¹ ASCEMA NACIONAL. Carta aberta à sociedade: a destruição da gestão ambiental federal e os ataques aos servidores. Available at: <<http://www.ascemanacional.org.br/carta-aberta-destruicao-da-gestao-ambiental-federal-e-os-ataques-aos-servidores/>>. Accessed on 12 May 2021.

⁷⁶² BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.23.

⁷⁶³ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.25.

a 455% increase in deforestation alerts after Bolsonaro published a video criticizing an operation carried out in the region and promising that Salles would open disciplinary procedures against servants who destroyed equipment.⁷⁶⁴

Graphic 8: Attacks on Ibama’s units, vehicles, or staff



Source: BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p. 28.

Besides finding quantitative expression in statistics on institutional attacks and deforestation, the impact of Bolsonaro’s political discourse on environmental inspection is also noticeable in the agents’ field experiences. Ideologically empowered by Bolsonaro’s hate speech against Ibama and ICMBio and physically armed due to the permissive gun policy implemented in his government, miners and loggers started confronting inspection teams with much more audacity and violence than ever before. It also became more common for offenders to openly refuse to pay the fine and formally justify this refusal in the administrative procedure by arguing “the days of the fine industry have ended.” Statements by Ibama servants quoted in the report by the Federal Audit Court give a very good account of this abrupt inflection in inspection routine. Among other episodes, they document how one ranger was hit in the face with a glass bottle by a bunch of loggers who explicitly invoked Bolsonaro’s declarations to resist the destruction of the truck they used to transport illegally extracted timber.

An Ibama inspector was assaulted during an operation in Uruará, Pará, after seizing a truck from loggers working illegally in the region. The group, composed of more than ten men, created an ambush to prevent the officer from taking the vehicle. In the middle of the discussion, the men even said that President Jair Bolsonaro said that the seized goods should not be burned. At one point, one of the loggers threw a glass bottle at the servant’s face, who fell to the ground. The offenders are empowered by the speeches and have access to weapons. Many ranchers, when they receive us in

⁷⁶⁴ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.28.

areas with illegal logging, say - 'I thought the government was going to finish with Ibama.' Attacks and riots are a constant in almost all of Ibama's operations (destruction of bridges, closing of roads, ambushes, coercion, threats, hate messages/audios against Ibama's inspection in WhatsApp groups). Allied to the discourse of the leaders of the Executive branch that disqualifies the work of environmental inspection, [they] become a real danger to the AAFs. (Statement by an Ibama servant transcribed in TCU report).

The miners received political promises that their activities would be 'legalized' and that the environmental and public security agencies would no longer act, either by order of their superiors or because of purposely imposed budgetary restrictions. (Statement by an Ibama servant transcribed in TCU report).

Right at the beginning of the current government, there were cases in which the citizen being inspected questioned the team of inspectors about how they were there if the government had promised to do away with Ibama. [...] In an administrative defense, an individual argued he was not going to pay the fine because the days of the fine industry had ended. (Statement by an Ibama servant transcribed in TCU report).

The effects of Bolsonaro's hate speech on the professional life of inspection agents were also profusely addressed by the respondents interviewed for this research. The four excerpts transcribed below add different angles on the issue. The first raised an interesting connection between media and legality: verbal statements by politicians transmitted in short videos on WhatsApp groups or other social media are often regarded by individuals in rural areas as shrouded by the binding force of law. As verbal agreements are perhaps the main form of contract in regions of lower population density, it is not uncommon for inspected individuals to attribute to Bolsonaro's declarations the status of legislation, capable of undoing what they perceive as misdeeds of previous governments. In the exasperated words of an Ibama servant who lived this situation in his own skin:

We have noticed an escalation of irregularities in the Amazon. This is proven by deforestation data itself. It is also very clear to us this is due to a very permissive discourse for these activities from the government itself, from representatives, from authorities. I can prove to you that sometimes a speech by an authority is worth a lot more in the interior of any of these regions than a stamped and signed piece of paper. It is worth a lot more. Because all agreements in these places are made verbally. Everything verbal reverberates very strongly in these regions. So, when you have a president of the Republic or a senator, you have a congressman, a mayor, your evangelical pastor, everybody saying 'man, this is what you have to do, invade, if you don't invade, occupy and then you will have land.' Meanwhile, the land grabber is making a lot of money. The politician is increasing his political capital, based on these supposed protections, these arguments. All this is so true for us that there is no way to dissociate in our minds that these statements have collaborated in a very strong way. So much so that in the past, when we arrived in an area to inspect, we were extremely respected. Not today. Today the guys ask us a lot of questions. For example, and I am speaking from my own experience: 'Who sent you here? Lula has already left, young man, Bolsonaro said that you shouldn't be here!' Man, I am there in uniform, with an official vehicle, with a helicopter, with the National Force personnel giving support and the guy is questioning our activity there because he thinks that someone is in charge and that it is not the president who is sending us there. So, for these people the president is the law, and whatever he orders must be complied with, regardless of whether there is a law to be complied with. [...] These people were encouraged to commit these infractions because they believed that they would not be

punished, and they are not being punished because we do not have the structure to do the work. For many people who today are committing infractions in the Amazon, man, they are living the best time of their lives, because there is a supportive president, there are a lot of supportive politicians and there is a totally unstructured agency that cannot inspect, as he promised. It is a completely chaotic situation. We have gone back years in what we were doing. (Interview with an Ibama servant).

Lula has already left, Bolsonaro said you shouldn't be here. A certain impersonation of the president as the ultimate representation of the political body – as the interviewee put, “for these people, the president *is* the law” – lies at the center of the conflict of authority faced by Ibama’s inspectors in the field. Certainly, associating a president’s word with the law is informed by convenience; if a president said the opposite of what these miners and loggers believed in they would probably not take his word as orders to be followed but as affronts to be resisted. Yet, informing this association there is also a genuine illiteracy on the basic tenets of how government and political institutions work. The rules subtending the division of competences between the executive and legislative branches, on the one hand, and the limitations on the president’s powers vis-à-vis the bureaucracy, on the other, often fall outside the understanding of the political system available to the actors involved with deforestation at ground level. Individuals involved with illegal mining, ranching, and logging end up attributing inspection operations to the mere whim of the servants. They personify in the figure of the agents the institutional mandate of environmental protection, as if inspection was not established by law but simply derived from the will of a group of public officials.

Organized crime destroyed our helicopters, right? Thank God it's not my house, it's not my car, because the damage was going to be to me. But nothing prevents these guys from doing this to us, you know? It's a very big risk, because they personify the agency's performance. The guy who should support our action is against it, which is the president. For them, I'm the one who's deciding to go there and destroy his plane, his logistics. That's it for him. And deep down, deep down, that's it. But it's an institutional action. As long as he is acting against the institution's property, thank God, property we can take back. But on a daily basis, [they can go] against someone's life – and this will invariably happen, - either against a relative or personal assets. Then we'll go into a real guerrilla situation. It's already a guerrilla war, guerrilla tactics. (Interview with an Ibama servant).

Amidst such a scenario of informational deficit, the responsibility of political representatives towards their constituencies should be even higher. Instead, what candidates aligned with Bolsonarism did was exploit hate speech against Ibama to harvest electoral outcomes. In other words, politicians discovered that swearing at Ibama and promising to end inspection won votes in municipalities located in the arc of deforestation. According to another interviewee, this was the biggest novelty brought by the Bolsonaro government: trash-talking an environmental institution on social media became a successful electoral strategy. Despite having lost the 2022 re-election campaign, Bolsonaro won in the majority of Amazonian

municipalities with higher deforestation rates. These regions elected an increased number of right-wing conservative candidates for legislative and governor positions in the 2023-2026 legislature.⁷⁶⁵

I joined Ibama in 2014. [...] I could see the agency's structures were outdated. This already came from before, in my view. Ibama's buildings were already in disrepair, there were no people to work in, there was a lack of employees, people were retiring, and so on. But even so, I think that there has never been a discourse against Ibama before, you know? This is the big change. You have a discourse against it. People suddenly found out that speaking badly about Ibama gets votes. And then they started to speak out to win votes. To say that they were going to stop Ibama, that they were going to do away with Ibama, to gain votes. They discovered this. Before there was no such thing. I had never seen this before. I think that nobody had ever seen before someone speaking badly about an agency and being elected, gaining votes with it. [...] Before you didn't have congressmen openly defending mining inside indigenous lands. Man, this kind of thing is illogical. Suddenly they started doing it and getting elected doing it. (Interview with an Ibama servant).

Another strategy employed by Bolsonaro's cabinet to push for the legalization of economic activities in conditions until then prohibited by law was to purposely mix up the legal and the illegal in political discourse. Landowner and land grabber, licensed timber manager and illegal logger, all of them were deliberately put together in a single category: the "producers." This false equivalence aimed not only at legitimating legislative attempts to eliminate the special territorial regime applicable to conservation units and indigenous lands. It also sought to generate a broader identification among agribusiness, timber management, mining, and their clandestine counterparts, creating an impression of undifferentiation between legality and illegality that favors the latter and opposes the "productive sector" against environmental institutions. In the words of an interviewee, who had to draw his gun a couple of times in self-defense while on the field since the change of government:

This campaign of the government that came in started to empower bandits to the detriment of the environmental agency. Anti-environmental policy was put in place in the country, thinking that the ones that were holding back the development of the country were the environmental agencies that were obeying the law and not the bandits. They mixed up the rural landowner with the land grabber, [as if they were] all the same thing, the timber thief with the [producer who has a] management plan, the logger, they mixed it all up into a single cake. And they branded Ibama as an agency that would be an industry of fines. Trying to defame the agency, trying to stop that cohesive scientific activity, that police apparatus, the environmental police of the Brazilian State, based on field combat and technology. [...] And the hate speech put into the field against the environmental agent. I myself had to draw my pistol four, five times in the middle of the forest, otherwise I would be dead. The guy is empowered there, but [we are] not here. There was this terrible setback. [...] If I didn't have my .40 [gun] I would have been beaten to a pulp in the middle of the woods. It's serious business, it's ugly. (Interview with an Ibama servant).

⁷⁶⁵ Pro-Bolsonaro municipalities have experienced an increase in deforestation two and half times higher than pro-Lula municipalities. GIRARDI, Giovana. Municípios da Amazônia que elegeram Bolsonaro no 1º turno são os que mais desmatam em 17 anos (Estadão, 26 October 2018). Available at: <<https://www.estadao.com.br/sustentabilidade/ambiente-se/municipios-da-amazonia-que-elegeram-bolsonaro-no-1o-turno-sao-os-que-mais-desmatam-em-17-anos/>>. Accessed on 10 July 2023.

Militarization of leadership positions and abuse of disciplinary procedures

In their eagerness to “cleanse” Ibama from the cadres that had led PPCDAm and raised environmental policy to a new level, Salles and Bim dismissed 21 of the 27 chiefs of decentralized units and assigned at least 19 military officials and military policemen to top-level positions in Ibama.⁷⁶⁶ A group of political appointees, especially those from the military police of São Paulo, started to indiscriminately file disciplinary procedures in Ibama’s Internal Affairs [*Corregedoria*] against the servants for alleged wrongdoings in their work. From minor delays in report delivery to normal disagreements about the interpretation of a rule, any routine action became potentially punishable by dismissal. This strategy of intimidation targeted especially servants who were informal intellectual leaders in the area of inspection.

The number of accusations increased, many times unfounded, and there were many weak admissibility decisions. This makes it clear to the public servant that Internal Affairs is being used to intimidate public servants. There is a suspicion of influence on the decisions of the commissions’ members, as if something had been ordered. [...] This has to do with the arrival of these managers from the Military Police, who brought along with them this practice of making accusations against public servants and using this accusation as a form of intimidation. The guy won’t do what I tell him to do? Send him to Internal Affairs. Or is the guy an informal leader among the employees? I’ll look for some reason to send him to Internal Affairs and demoralize him. Then, more and more accusations and strange accusations started. I even heard one of them, those leaders who were police officers, saying: ‘it is because you are not used to this.’ So it seems that this use of Internal Affairs and harassment are very strong management strategies inside the Military Police cellars of São Paulo. This was the impression I had from the speeches and modus operandi of these managers. In the military environment we know they can manipulate the commissions because it is the officers who analyze the conduct of the soldiers. At Ibama this does not happen. [...] To keep the agency working, people have to take risks, because the agency does not have ideal working conditions. [...] This strategy of denouncing the public servants caused a drop in everyone’s morale because everyone became a potential target, especially people who had some level of leadership in the construction of this stronger pattern of enforcement. [...] This humiliates the servant. I have seen cases in which the servant went through this and ended up being praised in the commission’s report. But this praise is worth nothing because he had his morale lowered during the process. [...] Almost all of those who went through this started taking medicine at some point in these last three years to be able to sleep, to try to reestablish themselves somehow. Their productivity practically ceased to exist because, in a hostile environment, everything you do can turn against you, no matter if you are protected by a law that obliges you to do it. (Interview with an Ibama servant).

The administrative persecution diverted energy from the servants, caused them psychological damage, and impaired their productivity. Its objective was to impose an atmosphere of fear in Ibama’s workplace to bring law enforcement against environmental offenders to a halt. An atmosphere of intimidation and harassment began to dictate the

⁷⁶⁶ SEIBT, Taís; RAMOS, Maria Vitória. Governo Bolsonaro tem 99 militares comissionados na gestão socioambiental (Fiquem Sabendo, 22 October 2020). Available at: <<https://fiquemsabendo.com.br/meio-ambiente/militares-gestao-socioambiental/>>. Accessed on 10 July 2023.

relationship between servants and political appointees. Leaders selected from the military police of São Paulo particularly stood out for their foul, aggressive language – remind the quote a few pages above, where a servant told he heard from a director he was going to “wipe his ass” with Ibama’s useless letters to society – and for the deployment of management techniques inimical to democratic regimes. Besides systematically persecuting informal leaders and other servants by means of disciplinary procedures, there are reports of veiled and explicit threats. A conservation unit chief of ICMBio, for instance, was held for four hours in a police vehicle for seizing weapons from hunters.⁷⁶⁷

As we saw when discussing recruitment policy during the Workers Party and Temer governments, political nominations of allies with little or no experience with environmental policies to occupy key positions in Ibama are not a new phenomenon. DAS positions were often used as bargaining chips to accommodate allies in quotidian practices of patronage. However, in previous administrations the damage caused by political nominees was incomparably lower. They were not so much opponents of environmental protection but more like “dead weight,” political allies who earned money without working. Consequently, the biggest risk they posed was a delay in enforcement, not a complete and deliberate stoppage. In those times, tenured servants often confronted and embarrassed political nominees who clearly lacked expertise. Discussions were being held within Ibama to change the legislation in order to restrict DAS positions (except the agency’s presidency) to in-house servants. Under Bolsonaro, this kind of direct contestation was no longer possible. Criticism of the disastrous conduction of inspection by military managers had to take on a more collective character, so as not to backfire at the servants individually. The lack of knowledge and preparation by military managers was pointed out by several interviewees as a deliberate obstacle to the agency’s performance:

The military policeman is never going to come close to one-tenth of the capacity of the Ibama guy in the complex management of the environment. [...] A report signed by an Ibama environmental analyst has value; a report by a military policeman is worthless. [...] This occupation of Ibama by military policemen was the most disastrous thing that we saw. It is really not wanting to do something. When you don't want to do it, you put someone who doesn't understand anything to command. He will take a year to try to learn something. Two years after he has learned, he will deal with how not to do it, not to comply with the law. (Interview with an Ibama servant).

Have you seen that this invasion of the military did not work? Neither the Army nor the Military Police? Why not? Because we dominate Ibama so much that they couldn't handle it. [...] People who came from outside now felt that being an Ibama manager and getting results is not easy. You can be a manager in the Military Police in São

⁷⁶⁷ CHAVES, Leandro. Bolsonaro cortou orçamento do Ibama, ICMBio e Inpe, órgãos-chave para combate ao desmatamento (InfoAmazônia, 25 October 2022). Available at: <<https://infoamazonia.org/2022/10/25/bolsonaro-cortou-orcamento-do-ibama-icmbio-e-inpe-orgaos-chave-para-combate-ao-desmatamento/>>. Accessed on 10 July 2023.

Paulo, you can be an environmental military policeman, you can be a colonel or general in the Army and work with operations in the Amazon, but if you do not know, if you do not have the intimacy that we have, which was acquired over many years... I started in 2005, we are in 2022. (Interview with an Ibama servant).

What is the most anti-environmental sign that was put in ICMBio and Ibama? The appointment of staff that doesn't have the slightest competence to manage the environment. Military policemen. With all due respect, they have to go arrest criminals on the street. They don't have the minimum qualification to command such a complex area like ours. An analyst of ours works with deforestation, biopiracy, fishing, fauna, several activities. They don't understand anything and want to manage. When they arrived at the ministry, they took the policies - the PPCDAm, they put it in one drawer, the PNMC, they put it in the other, they closed the forestry directorate of the ministry. That is, they put an end to the environmental policies that guided Ibama. (Interview with an Ibama servant).

Sabotage of public exams

In subchapter 8.4 above, we had an overview of the four public exams held by the Workers Party governments to hire environmental analysts for Ibama. We also saw how the attempts to organize a new exam were frustrated during the Temer interim administration. Between 2016 and 2018, the Ministry of the Environment forwarded to the then Ministry of Planning at least one request per year requesting budget authorization for public exams for Ibama, but all of them were denied.⁷⁶⁸ In 2019, already under Bolsonaro, the Ministry of Environment did not submit any request to organize a public exam for Ibama. At the end of 2021, pressured by national and international public opinion to respond to increasing deforestation in the Amazon – in April 2022 there were only around 250 inspection agents for the whole country,⁷⁶⁹ down from around 1,300 in 2010,⁷⁷⁰ – Bolsonaro's team went against expectations and opened a new recruitment call. This provided the government not only an argument against domestic and foreign critique but also, most significantly, a unique opportunity to make a long-term strike on the agency's most solid core, its tenured staff.

For the first time, the exam's eligibility criteria for environmental specialists did not include the requirement of a university degree: for 432 of the 528 positions offered, a high school certificate sufficed. The immediate reason for this is deemed to be purely financial, as positions with lower requirements are paid half the salary of positions with higher requirements. Hiring more people while disbursing less also allowed the government to frame the recruitment procedure in a positive light, as a result delivered to society. All positions for holders of college degrees were assigned to Brasília, while the high school level positions were distributed among

⁷⁶⁸ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.23.

⁷⁶⁹ Information from an interview with an Army official who occupied a leadership position in Ibama.

⁷⁷⁰ BRAZIL. Federal Audit Court [Tribunal de Contas da União]. Relatório TC 038.045/2019-2, 2019, p.59.

the states. The regionalized allocation system was adopted once again. For the first time, 20% of the vacancies were reserved for black candidates; it is important to stress that this advancement was due to a law promulgated in 2014 by Rousseff.

The most astonishing change in the exam, however, was the inclusion of notions of criminal law within its programmatic content, accommodated in the section of the specific knowledge. This happened even though Ibama has no criminal enforcement role; its whole sphere of action lies at the administrative level. In the booklet for the college level exam, while there was no reference to “Amazon,” only one to “inspection,” and none to deforestation, no less than 30 questions were about criminal law. Questions that require nothing more than the memorization and repetition of maxims, doctrines and formulas of criminal law are traditionally asked in examinations for police positions in Brazil. The disconnection of this type of exercise with the analytical skills needed for the execution of anti-deforestation operations is blatant. Consider, for instance, the question below, which was part of the 2021 Ibama exam. Besides addressing an issue totally unrelated to environmental policy – abortion – it simply demanded the memorization of hypotheses of qualified criminal immunity:

About unlawfulness and its justification causes, judge the following items.

103 Consider that a criminally liable woman has induced an abortion, being objectively characterized, at the time of her conduct, by the conditions of the state of necessity, which were totally unknown to her. In this hypothetical situation, the lack of subjective elements of justification leads to the illicit nature of the conduct and the punishment of the woman for the corresponding crime.

104 Unlike the state of necessity in which the needy can act against an unrelated third party, in self-defense the victim must direct their defensive behavior against the aggressor.

105 Self-defense is admitted against those who practice physical or moral aggression, even if the aggressor is covered by a cause of exclusion from culpability.

Questions like this demand no deep understanding of the multifactorial causes and effects of environmental destruction, no command of the diverse repertoire of policy instruments available to environmental agents. The essay entailed a similar cultural screening, as all the candidate had to do was copy down the opinion of the Federal Supreme Court on the prescription rules for environmental damage:

Five years have passed since the occurrence of environmental damage; public power was inert to inspect it. There is an internal divergence between units in Ibama: one understands that prescription expired; the other understands there is no extinction of prescription for environmental damage. Considering the hypothetical situation above, write a dissertation explaining, in a justified manner, which of the cited units of Ibama is right, according to the understanding of the Federal Supreme Court on the subject.

The two major differences identified between the 2021 exam and the previous ones – waiving the college degree and overemphasizing the loosely related topic of criminal law – impacted the profile of approved candidates and their interaction with the agency. The

consequence of withdrawing the need for a university degree was not a massive entry of high school graduates, but a distortion between the qualification of the approved candidates and their positions. Experience with previous examinations for administrative positions in Ibama demonstrates that most of the candidates approved for the high school level are actually overqualified; they often have college degrees, even master's and Ph. D. titles. Their turnover rates, thus, are the highest in the institution: Discouraged by the mismatch between low pay and high qualification, many servants apply and are approved in exams for more attractive careers. This labor exodus hinders a more effective allocation of resources for recruitment and training of new cadres. Huge salary disparities for the exercise of the same activities and possession of equivalent academic qualifications also tend to generate resentment between workers, hampering the formation of institutional solidarity ties. In the perception of the 2002, 2005, 2009, and 2013 cadres, the 2021 exam was very badly designed, and the consequences of this wasted opportunity for institutional renewal will be felt for a long time:

This exam is a terrible legacy of this administration that we will have to live with for years, because public exams have the potential to change the trajectory of an institution. You bring in new people, from a new generation, and generally those who pass the exam are young, bring new ideas, can contribute to the evolution of the institution. It was like this in 2002, in 2005. But this exam was very badly designed. [...] The problem is to require high school level. If an overqualified person passes the exam, tomorrow she passes another one and leaves. This happens a lot. The high school level is the position with the highest turnover. [...] They made simply an economic calculation, 'let's hire more high school personnel because they earn less.' When one talks about human resources, this is not the calculation. It's not how to manage human resources. (Interview with an Ibama servant).

As happened in 2013 in Ibama, most of the colleagues who passed the high school level have college degrees. So there is a biologist who is a high-school technician, an administrator who is a high-school administrative technician. This person, as soon as there is a new examination, she will pass. [...] You lose the person, there is an institutional expense, even of money to put her there and you lose time. [...] So it's just another competition for the English to see. Will a lot of good people come in? For sure. Certainly, a lot of good people will come in. But we don't know for how long. Soon these people will be out. (Interview with an Ibama servant).

If the agency had been working with requests for 2000 analysts, why did it suddenly change its strategy completely? It changed because it is cheaper. There is no other explanation. [...] I think it is regrettable. Turnover is a fact. Today there is even a document from our HR department pointing to this as a negative factor for labor management, because this happened with the administrative technicians. The salary is low, people are qualified, the exam is difficult. So, the exam selects people who have the capacity to pass other exams that pay more and this causes a labor exodus. The agency will spend money to receive these people, to instruct them, to make them productive, and it will probably lose the results over time. (Interview with an Ibama servant).

We don't need technical level in the agency. We should qualify our staff, our human resources. Because if we offer positions for technicians, we are going to get PhDs, you know what I mean? But this guy will leave, be discouraged to work. This is horrible. [...] It is a very bad thing that we create. It creates animosity, even. Our idea was not to hold public exams for technicians, but they did. 'Technicians earn half of

analysts, so we will offer all positions for technicians.’ Man, they hit us very badly, a very strong hit in terms of disqualifying our workforce or transforming our workforce into something fragile. Because there will be a very high turnover now in these positions. And there will be animosity among employees, because these employees will do the same inspection activity as mine and get paid half of what I do. It was an injustice we are trying to correct. (Interview with an Ibama servant).

The second change in the exam – a shift of focus from deforestation inspection and satellite-based technology to criminal law – resulted in an unprecedented increase in the number of lawyers approved to roughly 50% of the new positions. This precluded the selection of candidates with more environmentally-oriented educational and professional backgrounds. Moreover, many of the approved lawyers had no particular interest in environmental protection, but were actually preparing themselves to become police officers. In the perception of more senior servants, the new average profile of approved candidates represented a drop in quality compared to previous exams. Knowledge of the law, although necessary, is far from sufficient to qualify someone for the work of an environmental analyst.

Close to 50% of the candidates approved as environmental analysts to work in inspection are lawyers. This never happened, because there were always biologists, forest engineers, environmental engineers, agronomists. People who were directly related to environmental protection, with education in the environmental area, not lawyers. This happened because of the entry of the Criminal Code in the exam and a very high exploration of these questions in the exam. This was a suspicion we had even before, that they tried to privilege the police area for Ibama. [...] This great approval in the number of lawyers, of course, on the one hand it’s good. But such a large number shows a very big flaw in the selection process. If we were to select lawyers, we should select them for the position of administrative analyst, not environmental analyst, do you understand? Although we need to know the legislation, [there are things] more important than the legislation, which I can read and understand. Now, if you ask a lawyer ‘man, do you know the hydrogen cycle, the oxygen cycle of water?’ Knowledge about the environment, the ecosystem, how it works, it’s more important to make a decent report than to say ‘you broke such and such a law, such and such a penalty.’ This is not environmental inspection; it is very bad. The result of this privileged exam was very worrying for us. [...] In the next exam, if there is one, and if there is a favorable environment and if it is really conducted by civil servants, it will certainly be an exam already prepared to balance it out, so that we don’t have a bunch of lawyers coming, who will help, I am sure, but not as much as we would need. (Interview with an Ibama servant).

The Bolsonaro administration seized the opportunity, on the one hand, to fulfill Ibama’s cadres with newcomers they thought most likely to embrace the Bolsonarista anti-environmental agenda and, on the other, to create conditions for internal instability and grievances among the staff. The premeditated and radical shift in the profile of selected candidates – from biologists and sociologists to lawyers and would-be police officers – can be deemed as an attempt to subvert shared understandings of what the agency’s purpose ought to be about: Not a specialized technical institution dedicated to the protection of the environment, but a “green” version of the police. In hindsight, one can observe that the exams held in 2002, 2005, 2009, and 2013 were marked by incremental processes of specialization and

technicization which sought to enhance the agency's capacity to inspect deforestation and strengthen its identity around the ideal of environmental stewardship. Whereas bargains between politicians and bureaucrats over budgets have always played a decisive role in the frequency of exams and the number of positions offered, until Bolsonaro there was a shared, taken-for-granted consensus around the idea that environmental agencies should recruit candidates whose professional and educational profile reveals a calling to engage in environmental protection.

The tactics of resistance employed by Ibama's servants to safeguard the agency's repertoire of technical knowledge were, beyond strengthening associations to defend the agents against persecution and harassment (as seen above), mainly two. The first can be called "sabbatical retreat." Some servants – notably those who occupied high-rank positions during the governmental transition and, accordingly, had more visibility and were under close watch by Bolsonarist nominees, – requested unpaid academic leaves. By transforming an imposed outage into an opportunity to produce knowledge that will or can be later applied to enhance their professional praxis, the servants contributed to preserving and further improving Ibama's background. The second tactic was reinforcing internal training. Given the bad design of the latest exam, and aware that the future of Ibama's capacity and identity depends on how successful its more experienced staff will be in gradually socializing the 2021 cohort in Ibama's ideals of environmental protection and stewardship, the more senior servants elevated the training of newcomers as a high priority objective.

CONCLUSION OF PART II

Part II analyzed the main transformations undergone by Ibama's organizational structure and culture during the implementation of PPCDAm according to political cycle, probing whether they contributed to building or dismantling state capacity and autonomy. State-society relations that co-produced PPCDAm were marked by the two features outlined by Evans et al. as constitutive of embeddedness: they were enabled by networks of professional politicians and social movements, and shielded by a progressive, reformist party that was strong enough to set and carry out an agenda but was far from having hegemony over civil society.

The arrival of a new batch of servants with higher education and no direct connection nor allegiance to the land-owning class supplied the brainpower needed to lead Ibama's capacity-building process. Hired through public exams, not political appointment, these servants were quickly elevated to leadership positions in the first Lula government and provided with relatively autonomous conditions to develop new ideas. The main outcome of this process of institutional experimentation was the consolidation of the doctrine of deterrence. Inspired by a leftist reading of Clausewitz's warfare theory, the doctrine postulated the concentration of organizational energies on operations aiming at high-visibility targets and resulting in the immediate decapitalization of the offenders. With the doctrine of deterrence, the coercive side of the state apparatus started to be redirected against large farmers and other capital-owning actors involved with illegal deforestation.

From one public exam to another – mostly held in the wake of a virtuous moment of democratization of university education in Brazil, – Ibama's inspection branch grew stronger, more cohesive, and more diverse, structurally removed from concern with short-run profit considerations. The exams organized in 2002, 2005, 2009, and 2013 were marked by incremental specialization and technicization, containing screening mechanisms that increased the chance of cultural fit and attracted analytical-skilled personnel. The cultural elements that prevailed within the agency's distinctive esprit de corps hinged on the scheme of “deterrence” and the qualification of illegal deforestation as, first and foremost, organized crime. Neither the consequence of the thoughtless actions of poor and illiterate peasants, nor the net effect of abstract forces such as humanity or the Anthropocene, the destruction of the Amazon forest is above all a capital-intensive and profitable enterprise, whose largest beneficiaries *can* be individualized and held accountable. Globalization did not make it impossible to apply the institutes of civil, criminal, and administrative liability to environmental offenders; it just made

the task more difficult and demanding of new instruments. Legal-institutional innovation such as the precautionary measures (embargo, seizure, and destruction) and extension of liability to financial institutions and upstream/downstream supply chain actors were responses to the challenge of cutting through multiple layers of identity- and wealth-shielding mechanisms enabled by transnational flows of money, commodities, and information.

Ibama succeeded in achieving such a level of autonomy to enforce harsh sanctions against high-profile environmental violators in the Amazon in part because it took advantage of four strategies or conditions. When the legal touchstones for command and control were approved in the Legislative at the end of the 1990s and the beginning of the 2000s, there was a deficit of knowledge by the agribusiness about their potential indirect redistributive outcomes. Moreover, cleavages between the higher and lower echelons of the agribusiness sector are more salient with regards to the Amazon than compared to ruralist strongholds such as the Cerrado. Some level of formal commitment on the part of soy traders and slaughterhouses to avoid purchasing from illegally deforested areas in the Amazon came, in a second moment, to combine with the repressive efforts of the environmental agency. Besides, Ibama's leaders skilfully sewed alliances with the press to increase transparency over repressive actions. As a side effect, growing media presence contributed to promoting the agency's image before a part of public opinion. Finally, autonomy was enhanced through the decentralization of competence for judging environmental fines among subnational units and central headquarters according to fine value. By distributing decisional units across different hierarchical levels and geographical locations, the framework provided for less control integration and more compound complexity.

In the transition from Rouseff to Temer, Ibama suffered successive budget cuts and depletion of its workforce. Yet, thanks to the work of diligent leadership, the agency continued to regularly plan and execute anti-deforestation operations in the Amazon. There was no paralysis in Ibama's core competencies; on the contrary, it was in this period that the agency went through major innovations in its modus operandi. The destruction of equipment began to be published in the media to amplify deterrence; alternative funding from the Amazon Fund was secured to finance the lease of trucks and helicopters used in inspections; the social communication department was oxygenated through the hiring of an experienced journalist; the Internal Manual of Inspection was revised; the indirect conversion of fines was reinstated as a funding source to promising projects to recover critical river basins. Crucially, operations started targeting financial institutions and upstream/downstream supply chain actors involved in deforestation, as well as adopting preventive and more technological approaches. All these

achievements conquered during 16 years of incremental capacity-building were brought to a halt with the arrival of the Bolsonarista coalition to power.

The changes made in Ibama's structure by Bolsonaro's cabinet from 2019 to 2022 were strategically aimed at neutralizing the pillars of the doctrine of deterrence, targeting precisely the agency's authority, nodality, treasure, and background tools. Through the introduction of conciliation hearings and other procedural changes, *de facto* prohibition of destroying equipment, concentration of operational command in the Army and the Federal Police, and cancellation of public calls for indirect fine conversion, the Bolsonaro government significantly reduced the application of immediate economic losses to environmental offenders. By imposing censorship on the agents, dismissing Ibama's press team, using personal and official communicational channels to erase and disqualify the agency's performance, and indiscriminately filing disciplinary procedures against the servants, Bolsonaro's team undermined the organization's ability to access the media, amplify dissuading and solidify its image before civil society. By reducing Ibama's budget even further and refusing to spend the money made available by alternative sources of funding, they sought to dehydrate the agency's financial capacity to conduct inspection operations. By promoting hate speech against environmental servants, appointing military officials and policemen to leadership positions, and favoring lawyers and would-be police officers in selection processes for tenured positions, Bolsonaro tried to change the background shared by the agency's participants, moving it away from a civilian ideal of environmental stewardship towards a model of blind obedience and indifference for human rights historically more akin to the military police or the Army.

Ibama servants reacted by engaging in different resistance tactics: discreet disobedience, anonymous and collective whistleblowing, strengthening of civil servant unions, activating cross-institutional alliances, complementing field expenses with own income, requesting unpaid academic leaves, and reinforcing internal training. These tactics, however, turned out to be more damage reducers than game changers, especially due to how Bolsonaro's interferences in environmental policy processes were solidly backed by contextual factors of Brazil's institutional setting, notably the absence of requirements for the fulfillment of top-level positions within the federal bureaucracy. As DAS positions in Ibama can be occupied by politically appointed externals without legal minimum criteria, the retention of organizational autonomy is rendered vulnerable during governmental transitions.

Most of the dismantling measures imposed by the Bolsonaro administration have been already undone by the new team assigned by Marina Silva to lead Ibama, with Lula's comeback in 2023. Flexibilizing norms have been revoked, exemplary servants have been reinstated in

top positions, communication channels with the press, civil society and other state institutions have been restored, budget has been recomposed, new recruitment exams are in sight. Deforestation from August 2022 to July 2023 already dropped 22.37% compared to the previous year.⁷⁷¹ Yet, some of the evils released with the Pandora's box opened by Bolsonarism will still be around with us for a while. The number of weapons in possession of civilians in the Amazon is concerning: in 2022, at least 56,473 guns were registered in the region (not including unregistered weapons).⁷⁷² Combined with the radicalization of conservative identities, the existence of armed enclaves in the countryside means risks for indigenous peoples, traditional communities and peasants and obstacles to the work of state institutions dedicated to territorial and environmental protection.

Also worrisome are the growing connections between timber extraction, gold mining, and agribusiness with well-established drug gangs and militia groups.⁷⁷³ *Primeiro Comando da Capital* (PCC) and *Comando Vermelho* (CV) – two of the largest organized criminal groups operating in Brazil, which respectively originate from São Paulo and Rio de Janeiro, – established deeper roots in the Amazon in the last years, favored by the permissive context of the Bolsonaro government. These groups have started to operate under a business logic inside indigenous lands: they supply illegal miners with weapons and heavy machinery, provide security and logistics, run prostitution and drug trafficking networks. Protected territories have been used as export transit points for cocaine destined for the European consumer market, with timber and gold providing not only autonomous sources of profit but also opportunities for money laundering and transport and storage cover. Amazonian municipalities under pressure from deforestation rank among the most violent regions in Brazil, presenting higher homicide rates than the national average and that of the Amazon.⁷⁷⁴

PPCDAm and Ibama are now back. Besides all the problems whose resolution was still in progress before environmental policies were paralyzed – reducing average length of administrative proceedings, increasing efficacy in fine collection, acquiring storage space to keep custody over seized products, improving intelligence work to identify financiers, suppliers

⁷⁷¹ BRAZIL. INSTITUTO BRASILEIRO DE PESQUISAS ESPACIAIS. Nota técnica: Estimativa de desmatamento na Amazônia Legal para 2023 é de 9.001 km². Available at: <https://www.gov.br/inpe/pt-br/assuntos/ultimas-noticias/estimativa-de-desmatamento-na-amazonia-legal-para-2023-e-de-9-001-km2/2023_1020_Nota_tecnica_Estimativa_Taxa_2023_SEI.pdf>. Accessed on 13 November 2023.

⁷⁷² INSTITUTO SOU DA PAZ, *op. cit.*

⁷⁷³ Connections between the rotten side of the agribusiness and drug trafficking are not new. For descriptions thereof in real-life cases, see DE ABREU, Allan. *Cocaína: a rota caipira*. 3rd edition. São Paulo: Record, 2017. What is unprecedented are the scale and intricateness with which these activities now intertwine in the Amazon.

⁷⁷⁴ FÓRUM BRASILEIRO DE SEGURANÇA PÚBLICA. Cartografia das Violências na Região Amazônica. Available at: <<https://forumseguranca.org.br/wp-content/uploads/2021/11/cartografias-das-violencias-na-regiao-amazonica-sintese-dos-dados.pdf>>. Accessed on 01 November 2023.

and buyers of illegal deforestation, etc. – Ibama now has to deal with new challenges emerging from a mutating context. Neutralizing the threat represented by armed and radicalized land grabbers and disentangling the financial and logistic networks articulated by transnational drug gangs and thriving militias will demand novel responses not only from Ibama’s inspection branch, but also from other state organs, the Brazilian society, and the international community.

Table 11: Changes in Ibama’s structure from 2004 to 2022

	Capacity-building	Dismantling strategies	Resistance tactics
Authority	Consolidation of deterrence as a “doctrine” Attainment of judicial endorsement Reduction of discretion Standardization	Conciliation hearings Prohibition of destruction Subordination to the Army and Federal Police	Low-profile disobedience
Nodality	Intensification of press coverage Publishing of equipment destruction Enhancement of satellite data	Censorship Disqualification of data Attempts to privatize satellite services Digital erasure	Strengthening associations Inter-institutional informal alliances Anonymous, collective whistleblowing
Treasure	Budget increase (until 2013) Amazon Fund as alternative funding to secure inspections	Budget reduction Non-use of authorized budget Paralysis of Amazon Fund	Disbursement of own income in field work
Background	Public examinations Hiring externals to fill internal knowledge gaps	Summary dismissals Abuse of disciplinary procedures Militarization of political appointments Sabotage of public examination	Strengthening associations Sabbatical retreat Reinforcing training

Source: own elaboration.

CONCLUDING REMARKS

Designed as an in-depth case study dedicated to interpreting in socio-legal fashion the interactions between Brazil's most comprehensive forestry policy and the main environmental organ responsible for its execution, this dissertation sought to unveil the transformations in Ibama's organizational structure and culture that have influenced and/or been influenced by the implementation of PPCDAm. To cope with the task, the first part of the research did a broader examination of PPCDAm's context, governance structure, instrumentarium, results, and the most serious gridlocks that curtailed its efficacy.

Chapter 3 showed how PPCDAm gradually incorporated elements of previous initiatives to halt deforestation and became a focal point for the coordination of socio-environmental policies for the Amazon. Chapter 4 gave a detailed account of the activities planned and executed within each axis of PPCDAm: land and territorial planning, monitoring and control, sustainable production, economic and normative instruments. Chapter 5 deepened into four points of tension that compromised the plan's implementation: the "ramified interdependencies" that make a positive agenda much more difficult to take off the ground than a negative agenda; the more fragile situation of subnational agencies to enforce sanctions against offenders, both for reasons of political capture and technical/financial incapacity; the need to resort to presidential decrees during progressive governments to erect a functional legal framework due to the agribusiness hegemony in the Legislative; and conflictual visions on the environmental impacts of titling small individual occupations.

In Part I, we argued that the main factors hindering the economic attractiveness of sociobiodiversity products are low market prices, limited local demand, barriers to competition raised by actors with vested interests in other activities, high seasonality, small scalability, low liquidity, lack of industrial infrastructure, extenuating physical effort, insufficient funding, and the short-term contractual logic of the Amazon Fund. The dilemma between nature's rhythm and the economy-of-scale brings forth the question of how to foster the economic viability of forest products without elitizing their consumption. We also sought to demonstrate that the reliance of PPCDAm's instruments on presidential decrees did not result from a supposed hyper-presidentialist trait of Brazil's political system, but it was rather a sign of the limit of the Executive's categorical agenda power over a Congress decades-long dominated by the ruralist caucus. After an initial moment of indifference motivated by a lack of knowledge about the redistributive impacts of anti-deforestation policies, the Legislative became increasingly hostile to harder command and control instruments.

We also claimed in Part I that subnational states are more susceptible to political pressure by local elites, as in many regions illegal activities finance electoral campaigns of city councilors and mayors. Non-traditional and non-indigenous communities, in general, do not feel enough attraction to the project of sustainability or the aesthetics of conservation. Without backing from the societies in which they are embedded, subnational environmental agencies often lack the means and the will to adopt transformative practices. Furthermore, we saw that there was a clash of views on the issue of individual titling within the governing coalition, whose outcome was a tie. Both groups – on the one side, the Mangabeirists favorable to recognizing small possessions, on the other, the circle around Marina Silva, which privileged collective ownership by culturally differentiated groups as the best-performing mode of territorial occupation to harvest environmental results – were able to block each other and the situation of undefined lands was not solved. By the end of the Workers Party administration, there were still around 56.5 million hectares of undesignated public lands in the Amazon, which became easy targets for land grabbers, loggers and miners under the Bolsonaro government.

Part II continued telling the story of PPCDAm by turning to Ibama's inspection branch and seeking to unveil its main transformations during the implementation of PPCDAm. Chapter 6 explained the theoretical framework employed to make sense of Ibama as an organization, as well as its relation to the political system and legal order. The key notions mobilized here were capacity, autonomy, building, and dismantling. We also defined the notions of organizational structure and culture used to render the sources intelligible, breaking them into subcomponents (authority, nodality, treasure, and background; schemes, assumptions, events, and individual background). Chapter 7 accounted for pre-PPCDAm initiatives to combat deforestation. Chapter 8 narrated the comings and goings of more than one decade of institutional capacity-building in Ibama during the Lula and Dilma administrations. Chapter 9 followed the efforts of Ibama's leadership to preserve the agency's capacity amidst a context of dismantling under Temer. Chapter 10 registered the abrupt discontinuation of PPCDAm and the deliberate asphyxiation of Ibama by Bolsonaro, as well as the rangers' defiant reactions thereto.

What I consider to be the main finding of this research is the process leading to the genesis and consolidation of the doctrine of deterrence as the moving spirit of Ibama's inspection branch. In the 2000s, a young environmental analyst recently hired through the agency's first "meritorcratic" recruitment (in the sense of being a formal exam, not a political appointment) decided to apply Clausewitz's notion of "center of gravity" in environmental law enforcement, a seemingly odd borrowing that had revolutionary consequences for anti-deforestation policy. Concentrating repression in high-profile targets – better said, in the

wealthiest farmers, businessmen and politicians found to be involved with environmental crimes in the Amazon, – worked astonishingly well as a prioritization strategy. Deforestation rates fell drastically and immediately in municipalities where Ibama rangers seized massive numbers of cattle and blew up expensive mining machinery. After Ibama’s creative method had proven its results, judicial consecration came: the precautionary measures have been considered in different rulings to be in line with the current legal system and the constitutional order. When entrusted to actors committed to social democracy and environmental protection, devoid of deep ties to sectors of backwardness, and endowed with sharp analytical skills, administrative praxis can be much more emancipatory than adjudication.

What the Brazilian experience shows is that to halt the unbridled expansion of agribusiness over megadiverse forests and take seriously the imperative for environmental protection, one cannot forgo the deployment of institutionalized violence. The negative work of destruction and seizure, of deintrusion and embargo, which seeks to eliminate unauthorized predatory economic activities in protected territory, is nothing but the ultimate materialization of political authority. For political collectives always “include in and exclude from a space of action, and this is achieved – ultimately, but not only – by physical force”.⁷⁷⁵

In the battles fought on Amazonian soil, two different orders collide. On the one hand, there is the constitutional order inaugurated by the Constitution of 1988, aimed at economically incapacitating the plantation enterprise, whose epitome can be read in the destruction of equipment by Ibama. On the other, there is the latifundio order, aimed at maintaining the predatory pattern of forest destruction, whose embodiment can be found in the assignment of the Army to lead inspections with the unheralded aim of frustrating real enforcement efforts. In this sense, Ibama’s process of building capacity to enforce the Constitution is better described not as a militarization, for this word more immediately recalls the Army and its techniques for preserving the latifundio order, but rather as what we shall tentatively call *armed democratic empowerment*. Whereas a democratic regime founded upon the plantation and sustained by military violence corrupts the body of freedom, a democracy that is able to, through civil violence, restrain the agribusiness impulse for expansion and succeeds in imposing a movement of withdrawal enthrones freedom.

It is true that Ibama’s empowerment generated its dialectical antithesis, prompting the reaction of the forest-destroying forces. The latter’s response has been diffuse and chaotic, as in the riots and attacks on Ibama bases by local miners, but also increasingly coordinated and

⁷⁷⁵ LINDAHL, *op cit.*, p. 412-413.

institutionalized. Short videos trash-talking or threatening Ibama became part of the election campaign playbook of far-right politicians. Vote corralling practices were updated: alliances between neo-evangelical pastors, farmers, and politicians have started to back, financially and spiritually, the migration of poor families to indigenous lands, provided they change their electoral domicile to vote for the church's candidate. Conspiracy theories denouncing a supposed collusion of Brazilian public servants, indigenous peoples, and international NGOs to take land away from righteous farmers became a flagship of digital guerrilla warfare. This kind of fake news was particularly salient during the 2022 election campaign, when Ibama's role in combating deforestation in the Amazon turned into a "hot topic" and came to dominate much of the public debates with presidential candidates. Just as Ibama has innovated and adapted, the networks of actors who benefit, however mediocly, from the destruction of the Amazon have also perfected their methods and tools.

Yet, the fact that Ibama's efficacious action in favor of the forest triggered a stronger reaction by forest-destroying forces in no way nullifies the positive impact of the former. The observation of dialectics in social praxis should not lead to the conclusion that human action, – or, more specifically in this case, state intervention to protect territorial boundaries against predatory economic activities – is pointless. The acquisitions crystallized in the doctrine of deterrence now belong to the reservoir of concrete human experiences that have shown successful, albeit limited, results in one of the most arduous tasks facing humankind today: safeguarding the planet's last rainforests. In addition to a continuous call to action, what the reaction of forest-destroying forces urges us to do, from an academic perspective, is to investigate the foundations of agribusiness hegemony in the Brazilian legislative.

In this sense, the research findings point out the need for further empirical inquiry on the electoral strategies adopted by ruralist groups to influence voting behavior in municipalities in the Amazon. This assessment can be enriched with a more detailed analysis of electoral and party law, as well as of the means by which party leaders restrict more active participation by party affiliates. In the 2023-2026 legislature, the rural caucus grew 24% in the House of Representatives and 20% in the Senate compared to the previous term, reaching 300 congresspeople (out of 513) and 47 senators (out of 81). Despite having lost the 2022 re-election campaign, Bolsonaro won in the majority of Amazonian municipalities with higher deforestation rates. Recent developments such as these reinforce the relevance of dissecting the mechanisms through which the economy of deforestation is converted into votes, an essential gear for the reproduction of agribusiness dominance in Congress. Dismantling the agribusiness electoral machine is possibly the biggest challenge that progressive forces in Brazil face today.

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