TRADITIONAL COMMUNITIES, INDIGENOUS PEOPLES, AND QUILOMBOLA COMMUNITIES

Impacts and Solutions in the Climate Agenda

DIÁLOGOS PELO CLIMA

"An Assembly of voices for a New Future"

CLIMATE DIALOGUES is an initiative designed to engage various professionals within the Brazilian justice system on the issues of climate change and combating deforestation in the Amazon and Cerrado. By facilitating dialogues and the exchange of information and ideas among different stakeholders, it aims to develop solutions and guidelines on how legal obligations can become more efficient and effective in addressing climate change.

DIÁLOGOS PELO CLIMA

Cataloging in Publication
Brazilian Biodiversity Fund – FUNBIO

Traditional Communities, Indigenous Peoples, and Quilombola Communities: Impacts and Solutions in the Climate Agenda / Martins, Andréia (Coord.). _ Rio de Janeiro : FUNBIO, 2025.

232p. : il. ; 15,5x22,6 cm__ (Climate Dialogues ; 3)

ISBN (Impresso): 978-85-89368-46-9
ISBN (PDF): 978-85-89368-51-3

1. Povos tradicionais. 2. Indígenas. 3. Sustentabilidade. 4. Mudanças climáticas. I. Martins, Andréia. II. Coleção.

CDD 333.72

Prepared by Natália Corrêa Santos – Regional Council of Librarianship (CRB-7)
Registration Nº 7363

IMPLEMENTED BY
Community, Protected Areas, and Indigenous Peoples Project in the Brazilian Amazon and Cerrado Savannah Program (COPAIBAS)
Brazilian Biodiversity Fund (FUNBIO)

FUNDED BY
Norwegian International Climate and Forest Initiative – NICFI
Norwegian Ministry of Foreign Affairs

COMPONENT 3 TECHNICAL COMMITTEE | COPAÍBAS
HELIO HARA
PEDRO REISS
DANIELLE DE ANDRADE MOREIRA
RAFAEL CORRÊA

EDITORIAL COORDINATION AND EDITION
ANDRÉIA DE MELLO MARTINS

PREFACE
ROSA LEMOS DE SÁ
FUNBIO's Secretary General

FUNBIO/COPAÍBAS TEAM

ROSA LEMOS DE SÁ
Secretary General

MANOEL SERRÃO BORGES DE SAMPAIO
Program Superintendent

MARIANA MIGUEL DOS SANTOS
Portfolio Manager as of 2024

FERNANDA FIGUEIREDO CONSTANT MARQUES
Portfolio Manager until 2024

PAULA CAVALVANTI CEOTTO
COPAÍBAS Program Manager

MANUELA TORRES TAMBELLINI
Analyst of the COPAÍBAS/ Climate Dialogues Program

MARIANA MOREIRA DE MENEZES
Communications analyst for the COPAÍBAS Program

CONSULTANT
ISABELLE COSTA
ICOSTA Consultoria

ACKNOWLEDGMENTS
We are grateful to all the people and institutions who contributed to shaping the ideas, recommendations, and solutions outlined in this book.

COPAÍBAS
COMUNIDADES TRADICIONAIS, POVOS INDÍGENAS E ÁREAS PROTEGIDAS NOS BIOMAS AMAZÔNIA E CERRADO

FUNBIO · Governos Estaduais Goiás, Maranhão, Mato Grosso e Minas Gerais · NICFI Norway's International Climate and Forest Initiative · ICMBio · Ministério do Meio Ambiente e Mudança do Clima · Governo Federal Brasil União e Reconstrução

AUTHORS

ABILIO VINICIUS BARBOSA PEREIRA
Conservation analyst and food and nutrition security connector at WWF-Brazil

ANDRÉIA DE MELLO MARTINS
Project manager at FUNBIO

ANDRÉIA MACEDO BARRETO
Public defender of the State of Pará

BRUNO YOHEIJI KONO RAMOS
Attorney for the State of Pará's autarchies and foundations and president of ITERPA

CAÍQUE RIBEIRO GALÍCIA
Advisor to the Executive Secretariat of the Ministry of Indigenous Peoples (MPI)

FERNANDO MERLOTO SOAVE
Federal public prosecutor at the Federal Public Prosecutor's Office in Amazonas

ISABELLE COSTA
Consultant

JOYCE COSTA BARBOSA
Project analyst at FUNBIO

LUIZ ELOY TERENA
Executive secretary of the Ministry of Indigenous Peoples (MPI) and Indigenous person of the Terena people in Aquidauana (Mato Grosso do Sul)

MANOEL SERRÃO BORGES DE SAMPAIO
Program superintendent at FUNBIO

MANUELA TORRES TAMBELLINI
Project analyst at FUNBIO

MÁRCIO MENEZES
Technical assistant at the Traditional Peoples' Foods Commission of Amazonas (Catrapoa)

MARIANA GAMA SEMEGHINI
Technical advisor for the Biosphere Program – Bioeconomy and Value Chains Project (GIZ Brazil)

MÔNICA NOGUEIRA
Professor at the University of Brasília

PAULA CAVALVANTI CEOTTO
Project manager at FUNBIO

ROBERVONE SEVERINA DE MELO PEREIRA DO NASCIMENTO
On leave from the National Institute for Colonization and Agrarian Reform (Incra)

SINEIA DO VALE
Indigenous leader of the Wapichana people from the Raposa Serra do Sol and Serra da Lua Indigenous Lands

SULIETE GERVÁSIO MONTEIRO
Director of climate justice at the Ministry of Indigenous Peoples (MPI) and Indigenous person of the Baré people

CREDITS

GRAPHIC DESIGN
GISELLE MACEDO
Luxdev

REVISION
RACHEL VALENÇA
No Reino das Palavras

TRANSLATION
LARISSA STONER
Sunny Traduções

Implemented by

FUNDO BRASILEIRO PARA A BIODIVERSIDADE
FUNBIO

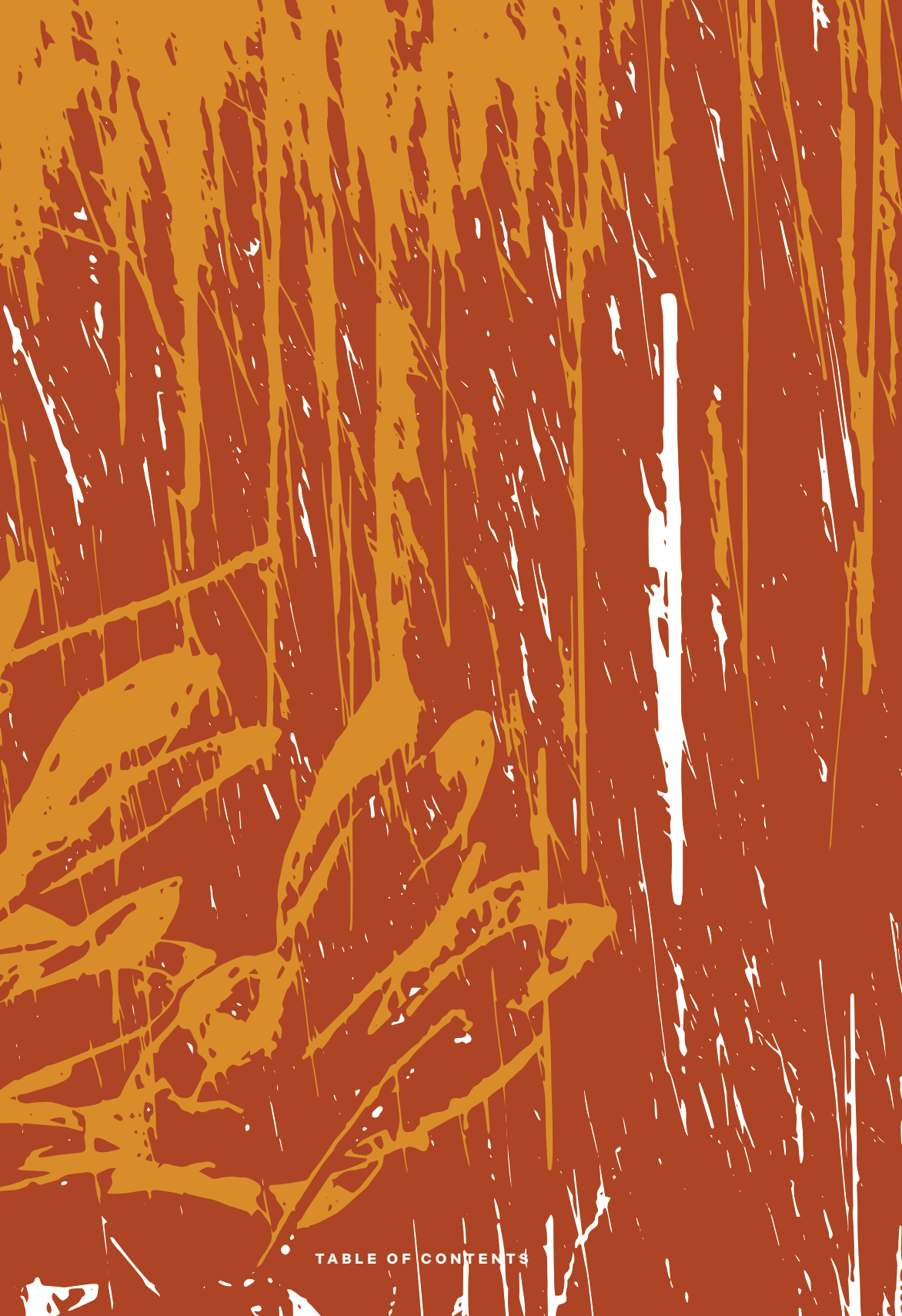


TABLE OF CONTENTS

TRADITIONAL COMMUNITIES, INDIGENOUS PEOPLES, AND QUILOMBOLA COMMUNITIES

Impacts and Solutions in the Climate Agenda

DIÁLOGOS
PELO CLIMA

TABLE OF CONTENTS

Protagonism and involvement

At the heart of this third publication born from the Climate Dialogues initiative is the vital contribution of traditional knowledge and practices from Indigenous peoples, quilombola communities, and other culturally diverse groups to environmental conservation and the sustainable use of sociobiodiversity. This collection brings together distinct voices united by a shared commitment to confronting climate change and halting deforestation.

The articles compiled in this publication explore not only the historical trajectories and current realities of these groups, but also the role of the Brazilian justice system in promoting their participation and advancing financing mechanisms that reinforce their leadership.

The authors present compelling data illustrating the critical role of Indigenous territories, which span 14% of Brazil's land area and hold 20% of its native vegetation cover, in environmental conservation and climate regulation. One example describes how these territories contribute to "global climate regulation... [acting] as giant air conditioners – cooling regional temperatures by up to 5°C" The texts also reflect how Indigenous peoples are responding to tangible changes in their environments, such as warmer waters in the *igarapés* and shifts in the composition of aquatic fauna.

The cultural and historical elements traditionally embedded in productive activities within quilombola territories are closely tied to sustainable practices, notably the Traditional Quilombola Agricultural System (SATQ, the acronym in Portuguese). In this system, agriculture forms the economic backbone, complemented by a range of activities such as extractivism and community-based tourism. This diversification supports the sustainable use of natural resources, with a direct impact on land integrity and restoration.

The authors emphasize that land tenure regularization and the formal recognition of these territories are critical to preserving this body of knowledge and practice. The articles advocate for public policies and legal strategies that uphold territorial and cultural rights, including the fundamental right to food security.

This publication also offers reflections on funding mechanisms for these groups and presents a concrete example through the COPAÍBAS Program. ***"Traditional Communities, Indigenous Peoples and Quilombola Communities:*** *Impacts and Solutions in the Climate Agenda"* is the third volume in the series produced by the Climate Dialogues initiative, part of the COPAÍBAS Program – an effort supported by the Royal Norwegian Embassy in Brazil and financially managed by FUNBIO.

ROSA LEMOS DE SÁ
FUNBIO's Secretary General

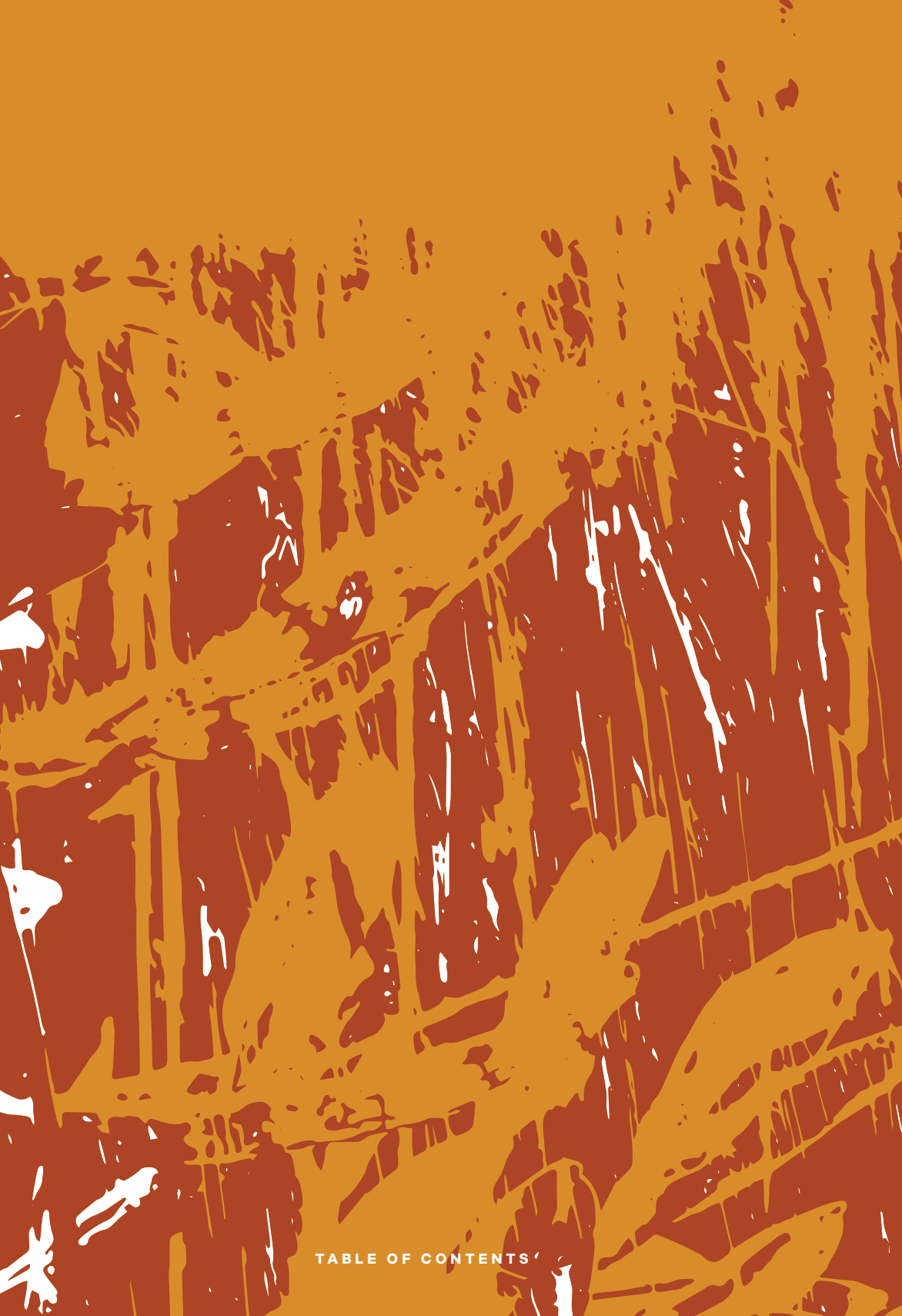


TABLE OF CONTENTS

Visibility in the era of climate action

TABLE OF CONTENTS

INDIGENIZING THE STATE: IDEAS FOR THE ONGOING CONSTRUCTION OF THE GOOD LIVING OF INDIGENOUS PEOPLES IN BRAZIL

BY LUIZ ELOY TERENA AND CAÍQUE RIBEIRO GALÍCIA[1]

Brief context

For more than five centuries, there has been a persistent tension between the European colonial project and the resistance of the peoples who originally inhabited what is now known as the "Americas." History records numerous moments of rupture and resistance, yet they have continually faced the Anglo-European developmentalist rhetoric that has shaped – and continues to shape – much of the global socioeconomic structure.

Thus, on one side, we can observe the "success" of the colonial project, whose central structure was built upon individualism and the notion of "man" as the center of the world – a reflection of the European cosmovision[2] forged in the 16th century. This project, characterized by a strong tendency to concentrate ideas around the imposition of a standardized model of economy, society, and political organization, developed within a geographically limited space increasingly defined by emerging borders.

On the other side, we find the resistance of peoples whose ideal of good living was rooted in distinctly collective principles and in their own cosmoperceptions[3], which shaped a pluralistic political, social, and cultural world across a vast territory lived in symbiosis with the forests.

On the other side, we find the enduring resistance of peoples whose ideal of good living was rooted in distinctly collective principles and in their own cosmoperceptions, which guided a pluralistic political, social, and cultural world across a vast territory lived in symbiosis with the forests.

This duality continues to define the twenty-first century, shaping the way we confront the interconnected crises of our time – climatic, political, social, and economic. Yet public and private actions alike often fall into the trap of oversimplifying both the problems and the solutions, as if deeply rooted, systemic challenges could be

---

1 This text was written by **Luiz Eloy Terena**, PhD in Law and Sociology (UFF), PhD in Anthropology (National Museum/UFRJ), and Postdoctoral Fellow in Social Sciences at the École des Hautes Études en Sciences Sociales (EHESS/France). He is the Executive Secretary of the Ministry of Indigenous Peoples (MPI) and a Professor of Law at PUC-PR. And by **Caíque Ribeiro Galícia**, PhD in Law (PUC-RS), Postdoctoral Fellow in Social Anthropology (UFMS), Advisor at the Ministry of Indigenous Peoples (MPI), and Professor of Law at UFMS.

2 A term commonly used to refer to a set of ideas that synthesizes a particular way of thinking, usually shaped by geographic, social, cultural, and temporal contexts. The use of the term "vision" specifically reflects the proposal of placing "what is seen" at the center of thought—a hallmark of European rational thought from the 16th century onward.

1 Purposefully (and provocatively), the term *cosmoperception* is employed as a counterpoint to *cosmovision*, precisely because of the complex component of "other senses"—beyond the primacy of sight as a symbol of European rationality—that Indigenous peoples, in their multiplicity of manifestations, express in the synthesis of each people's way of thinking.

addressed with superficial responses. In Brazil, this dynamic is particularly evident in the ongoing struggle between Indigenous movements, movements of smallholders, family farmers, and other social movements fighting for land, and, on the opposing side, large landowners, powerful cattle ranchers, and major commodity exporters.

Building on this, the present text seeks to move beyond the duality that conveniently obscures complex problems and serves the partial interests of simplistic and closed solutions. It proposes an approach centered on a model that recognizes Indigenous Peoples as political protagonists on the global stage. It also aims to present concrete outcomes and future perspectives in which the federal government – alongside some state and municipal governments – has begun to open spaces for Indigenous representatives to take part in the public management of Indigenous policy in Brazil.

To this end, the text introduces several interpretive keys – premises to be considered throughout the discussion – intended to guide the reflections proposed. Rather than reproducing the common-sense duality, the aim is to provoke sensations and ideas that resonate with the Indigenous movement's call to "reforest minds"[4] toward the future and to explore how it is still possible to hold back the "fall of the sky."[5]

Crises and a new(?) Indigenist policy: indigenizing the Brazilian State as a tool for intercultural dialogue

The first interpretive key that guides this reflection begins with the very concept of crisis as a driving force behind structural shifts in pursuit of "solutions" that seek to reshape understanding and produce "new" paradigms, a "new" reality, a "new" model. Yet the concept becomes hollow when disconnected from concrete references to support its conclusions – which is why it is so often used as a catch-all to justify the search for alternative solutions.

In this sense, while the scope of this text does not allow for a deep exploration of the topic, it is nonetheless important to ask: which crisis are we actually referring to? Once again, it is worth reflecting on how the "scientific" worldview is grounded in the premise of a closed cosmos, constrained by empiricism and rationality. Within this framework, crisis often signals a difficulty in seeing beyond the problem at hand – or merely an awareness that the once-tangible parameters of this enclosed system of knowledge are beginning to shift.

On the other hand, there is a model of thought that is open and understands change not as a singular event, but as a foundational element of both life and the system itself – one in which the notion of *crisis* can carry multiple meanings. More importantly, it frames crisis not as something to be "resolved," but as a generative force. From this perspective, crisis is not an interruption to be overcome, but a condition that demands adaptation, adjustment, and resilience – not as a response to something external, but as an engagement with what is inherent to life itself.

---

4 In reference to the ideas advocated by Sonia Guajajara, Indigenous leader and the first Minister of Indigenous Peoples of Brazil.

5 Reference to the work of Davi Kopenawa and Bruce Albert, *The Falling Sky: Words of a Yanomami Shaman* (2010).

What may initially appear as abstract provocations becomes profoundly concrete when we reflect on the fact that Brazil's history has been one of crisis and resilience for at least 525 years. For Indigenous Peoples, the climate crisis, cultural crisis, social crisis, political crisis, and health crisis are not exceptional events, but a persistent condition – one that has shaped the ongoing creation of alternatives and everyday strategies for the survival of their histories, bodies, territories, and cultures.

The aim is not to neutralize or deny the current state of planetary deterioration – quite the opposite. It has long been clear that the consequences of the extractive colonial model, and its evolution into today's globalized speculative capitalism, have consistently unfolded at the expense of the planet. In this sense, the "crisis" is not new; it has been with us for a very long time.

Conversely, the ways of life sustained by Indigenous Peoples over centuries of resilience continue to demonstrate that their sophisticated social technologies are fundamental to environmental stewardship. According to a study published by the Instituto Socioambiental[6], 13.7% of Brazil's territory is protected by Indigenous Lands, encompassing approximately 117 million hectares – a powerful testament to the effectiveness of Indigenous conservation practices in the face of more than 500 years of attempted destruction.

Another essential interpretive key is recognizing that this historical trajectory gave rise to a political movement that has led to concrete achievements in recent years. Born of sustained struggle, the movement to "indigenize the State" reflects a broader effort by Indigenous Peoples to reclaim the agenda and assert leadership over the issues that directly affect them.

This movement emerged in a singular context: through the enduring efforts of the Indigenous movement, which was instrumental in the drafting of Article 231 of the Federal Constitution, it became evident that the Brazilian State was incapable of fully ensuring constitutional rights.

In this sense, by moving beyond the tutelary mindset that has long – both directly and indirectly – shaped the actions of the Brazilian State, the Indigenous movement began to articulate and advance strategic issues on both national and international fronts. This opened new pathways to amplify the visibility of Indigenous Peoples' demands and to affirm the vital role of Indigenous knowledge[7] in shaping global responses to crises and in building viable alternatives rooted in ancestral ways of life.

While acknowledging the gradual advances made since the promulgation of the Federal Constitution, it is in the post-COVID-19 context – following the setbacks in Indigenous policy between 2016 and 2022 – that a new landscape begins to take shape. The turn of 2023 stands as a historic milestone for both Brazilian

---

6 OVIEDO, Antonio. DOBLAS, Juan. *As florestas precisam das pessoas*. ISA: 2022.

7 The opposition between scientific knowledge and traditional knowledge remains common, yet it is a false dichotomy, rooted in the narrow recognition of "science" as that which is produced within formal academic structures. In truth, traditional knowledge has also been forged through processes of experimentation, observation, standardization, verification, and confirmation. The key difference lies largely in how this knowledge is transmitted and formalized. The reader is thus invited to consider: what book, article, paper, or dissertation has been subjected to as constant and enduring a process of experimentation as the knowledge produced within Indigenous villages?

politics and the Indigenous movement, not as a product of chance, but as the result of a long and enduring struggle that has brought this moment into being.

Part of this movement is the legacy of a long-standing initiative embodied in the *Acampamento Terra Livre* (ATL), where thousands of Indigenous people gather each year in Brasília to bring their demands to the Government Ministries Plaza (*Esplanada dos Ministérios*). For over 20 years, the ATL has stood as the largest assembly of Indigenous Peoples and organizations in Brazil. It was born out of the struggle for the demarcation of Indigenous territories, the fight against violence directed at Indigenous Peoples, and the demand for their inclusion in policy discussions that directly impact their lives.

After 20 years, in April 2023, President Lula attended the ATL and reaffirmed a commitment that was later consolidated through the recognition of 13 Indigenous Lands, the reactivation of the National Council for Indigenous Policy (CNPI, the acronym in Portuguese), and the Steering Committee for the National Policy on Territorial and Environmental Management of Indigenous Lands (CG-PNGATI, also the acronym in Portuguese), among other measures. More than a renewed commitment by the Brazilian State to Indigenous Peoples, the change in government marked a structural transformation, placing Indigenous leaders, for the first time, at the forefront of public administration of Indigenous policy.

Thus, 2023 was historically marked by the creation of the Ministry of Indigenous Peoples (MPI)[8], composed of three National Secretariats and institutionally responsible for:

- Indigenous policy;
- the recognition, protection, and promotion of Indigenous rights;
- the defense, exclusive use, and management of Indigenous lands and territories;
- the well-being of Indigenous Peoples;
- the protection of isolated and recently contacted Indigenous Peoples; and
- agreements and international treaties, particularly International Labour Organization (ILO) Convention Nº 169.

Notably, the Ministry's senior leadership was assumed by Indigenous representatives, with Minister Sonia Guajajara – a nationally and internationally recognized leader, elected to the Federal Congress in 2022 – at its head.

The creation of the MPI brought about a structural change within the National Foundation for Indigenous Peoples (FUNAI), which became an entity linked to the Ministry, now headed by President Joênia Wapichana. As a complementary measure, FUNAI's Regional Coordination Offices – its operational units based in Indigenous territories – came under the leadership of Indigenous coordinators.

It is also noteworthy that in the 2022 elections, alongside Federal Representative Sonia Guajajara – who assumed office as Minister of Indigenous Peoples in 2023 – Federal Representative Célia Xakriabá was elected to represent the state of

8 Decree N° 11,355 of January 1, 2023 — Approves the Organizational Structure and the Staffing Framework for Commissioned Positions and Trusted Functions of the Ministry of Indigenous Peoples and reallocates commissioned positions and trusted functions.

Minas Gerais. These developments underscore the growing presence and consolidation of Indigenous leadership in spaces of power, particularly in advancing dialogue, shaping policy, and building political agendas on issues that directly affect their communities.

In a similar development, the Indigenous Health Secretariat (SESAI), an agency linked to the Ministry of Health, came under the leadership of Ricardo Weibe, an Indigenous leader from the Tapeba people, who incorporated numerous Indigenous professionals into the agency's staff to help build culturally appropriate healthcare services for Indigenous communities. The Special Indigenous Health Districts (DSEIs, the acronym in Portuguese), which are directly overseen by SESAI and responsible for delivering healthcare within Indigenous territories, also came under Indigenous leadership.

A range of other political spaces have likewise been occupied by Indigenous leaders, positioning them as key protagonists and specialists in the development of culturally appropriate public policies for Indigenous Peoples. It is important to underscore that Brazil is home to approximately 305 Indigenous Peoples who speak 275 different languages – a powerful reflection of the richness of their worldviews and cultural diversity, and a reminder of the need for their direct participation in building a better future.

This "indigenizing" of the Government Ministries Plaza represents not only the symbolic presence of Indigenous Peoples at the heart of federal decision-making, but also a shift in how non-Indigenous civil servants have had to adapt to Indigenous presence within these spaces.

The occupation of these spaces of power has been materialized through a series of concrete actions aimed at defending and promoting Indigenous rights, notably the restructuring of the National Council for Indigenous Policy (CNPI), the acronym in Portuguese through Decree Nº 11,509 of April 28, 2023. The new composition ensures equal representation between Indigenous Peoples and the Federal Executive Branch, while also guaranteeing gender and generational equity (Art. 4, §10). Among its various responsibilities, the CNPI is tasked with proposing objectives and principles for public policies directed toward Indigenous Peoples. With its renewed structure, the CNPI now serves as an expanded platform for advancing the project of indigenizing the State.

Another important milestone came with the enactment of Law Nº 14,802 of January 10, 2024, which established the Union's Multi-Year Plan (PPA, the acronym in Portuguese) for the 2024–2027 period. Designed as a strategic vision for Brazil's future and setting priorities for the federal public administration, the plan identifies Indigenous Peoples as one of the components of its cross-cutting agenda (Art. 4, item IV).

This inclusion enables the Ministry of Indigenous Peoples to deepen its coordination with other ministries to secure meaningful investments and actions directed toward Indigenous Peoples. At the same time, it places responsibility on federal agencies to promote culturally appropriate public policies. Under the PPA, participating ministries are expected to collaborate within their respective mandates to advance the following key pillars:

- full recognition of Indigenous land tenure;
- territorial and environmental management of Indigenous lands;

- Indigenous sociobioeconomy;
- Indigenous health;
- Indigenous education;
- pluriethnic cultural and social rights; and
- institutional capacity-building.

Part of the impact of indigenizing the State is reflected in the practical reorientation of priorities – including the allocation of resources – toward the protection of Indigenous rights in Brazil. At a structural level, territorial claims remain central to Indigenous advocacy, yet they are deeply intertwined with a range of other policies that also demand implementation. Within this window of opportunity lies the challenge – and responsibility – of laying the groundwork for lasting legacies for future generations.

While the struggle for land rights and territorial protection remains a cornerstone – and has long featured in international discussions often led by major organizations and foreign governments – indigenizing politics and reforesting minds also means illuminating the lives of those who inhabit the forests. It is a call to recognize that within these territories live people whose constitutional rights must be fully respected and guaranteed.

Environmental preservation, sustainability, and the transition to new energy models are at the forefront of national and international debates. Yet it is crucial not to overlook the human dimension underlying these agendas. A viable future depends on protecting the environment – and environmental protection is inseparable from the struggle for the lives, rights, and dignity of Indigenous Peoples.

Toward a viable future

The reflections presented thus far suggest a promising landscape for the expansion of Indigenous policy and, in turn, the advancement of Indigenous well-being. Still, it is essential to avoid the illusion of abstract optimism and remain grounded in the realities and constraints of what is concretely possible. As Indigenous Peoples lead the construction of a political project, it becomes all the more important to remain aware of the enduring crisis and to engage with the complex terrain where progress, setbacks, and compromise unfold.

In the current context – marked by the resurgence of ultraconservative agendas, a renewed push for austerity in public spending, and the promotion of ultraliberal economic models – maintaining awareness of the spaces already secured and expanding dialogue has become a vital strategy for survival.

Within this framework, and reaffirming the principle that all other rights are rooted in the guarantee of territorial rights, the Ministry of Indigenous Peoples, over its first two years of operation (2023–2024), advanced the official recognition of 13 Indigenous Lands in Brazil. It also issued Declaratory Ordinances for an additional 11 territories and established 37 Working Groups within FUNAI to carry out the technical studies that support the demarcation process.

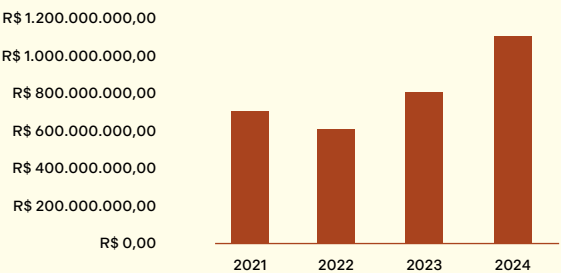
The process of recognizing Indigenous Lands is known to be complex and time-consuming, often subject to legal challenges that can heighten land conflicts. This is especially true in areas where agribusiness operates, where there is a

strong tendency to use judicial mechanisms to obstruct progress, resulting in processes that can drag on for years.

In light of this, efforts have been made to develop more agile, conciliatory approaches that prioritize resolution over conflict. These strategies have been shaped through interagency coordination, including with institutions capable of reallocating public lands to resettle non-Indigenous occupants in alternative areas.

However, all these alternatives also depend on strengthening the agency responsible for implementing Indigenous policy. In this regard, it is worth noting that, as of 2024, FUNAI's budget has increased by R$394 million compared to 2021, as shown in the graph below:

Figure 1: FUNAI's Budget



Source: Transparency Portal

The institutional strengthening of FUNAI has also encompassed several important initiatives: the launch of a public recruitment process with more than 500 positions, the creation of new career paths (specialist and technical expert in Indigenous affairs), and the restructuring of its salary framework. More recently, FUNAI's police authority was formally established through Decree Nº 12,373/2025, with the objectives of:

- preventing and deterring violations or threats to the rights of Indigenous Peoples;
- preventing and deterring the illegal occupation of Indigenous lands by third parties; and
- enforcing police powers in cases provided for by law.

These initiatives deserve particular attention, as they lay the foundations for structural policies with lasting impacts on the future of Indigenous affairs in Brazil.

Another key pathway for the future lies in the Ministry of Indigenous Peoples' strategy to promote the development of Consultation Protocols as a permanent mechanism to ensure dialogue between Indigenous communities and public and private entities, grounded in the political organization of each people and territory. ILO Convention Nº 169[9] affirms the obligation of prior, free, informed, and

9 International Labour Organization (ILO) Convention N° 169 on Indigenous and Tribal Peoples was adopted in Geneva on June 27, 1989, and entered into force internationally on September 5, 1991. In

good-faith consultation with Indigenous Peoples – a commitment that requires the creation of legal and political instruments that genuinely reflect the internal structures and decision-making processes of each community.

Recognizing that the majority of existing consultation protocols have been developed in Indigenous communities located within the Amazon biome, the MPI established a partnership with the Fluminense Federal University to support the development of 20 consultation protocols across the Caatinga, Atlantic Forest, Pantanal, and Pampa biomes. The selection of the Indigenous Lands to participate in the project was based on an equitable distribution across biomes and prioritized those territories most affected by nearby development projects.

This initiative marks a concrete advancement in securing territorial rights and paves the way for broader guarantees of Indigenous Peoples' rights. As an illustrative case, the Tupiniquim and Guarani territory on the coast of Espírito Santo is currently affected by more than 40 major development projects – yet still lacks formal Consultation Protocols.

In the absence of clear regulation and amid a maze of administrative norms, development projects often exploit loopholes to encroach on the outskirts of Indigenous territories. A central issue in these violations is that, following the damage – as in the case of Espírito Santo, where the impacts were severe, including the pollution of rivers and the sea – companies typically offer compensation payments that fall short of ensuring a dignified standard of living. Communities are left dependent on aid, having lost access to essential sources of food, artisanal production, and other means of self-sufficiency.

These are not problems with simple solutions. Yet meaningful progress lies at the intersection of intercultural dialogue and the presence of Indigenous-led public agencies in positions of decision-making. From this also arises the urgent need to balance public and private investment in order to consolidate initiatives that promote the good living of Indigenous Peoples – the primary guardians of the climate.

It is evident that shifts in political context can significantly alter the budgetary dynamics of public policies directed at Indigenous Peoples. Although the defense of Indigenous rights and climate protection should not fluctuate with changes in government, the current international landscape – marked by the rise of leaders who are not committed to these agendas – makes it necessary to develop strategies grounded in the realities of the moment.

As a synthesis of the reflections offered throughout this text, it is proposed that, on one hand, public agencies – particularly the Ministry of Indigenous Peoples and FUNAI – prioritize the establishment of permanent and definitive instruments for the protection and promotion of Indigenous rights. On the other hand, private actors that support projects and initiatives must continue to act as allies, expanding investment in areas where public institutions may fall short, always reinforcing and building upon structural public policies.

Brazil, the Convention was approved by Legislative Decree N° 143 of June 20, 2002, and came into effect on July 25, 2003, when the country submitted its instrument of ratification to the ILO Director-General. It was formally enacted in Brazil on April 19, 2004, through Decree N° 5,051/2004. The Convention is currently in force in Brazil under Decree N° 10,088 of November 5, 2009. See: **https://portal.antt.gov.br/conven%C3%A7cao-n-169-da-oit-povos-indigenas-e-tribais**

Final considerations

The foundations have been laid, and the path is set. Only through the active participation of Indigenous representatives in the formulation and decision-making spaces of public policy (indigenizing the State) will it be possible to continue building and consolidating institutional projects that promote the good living of Indigenous Peoples. The presence of Indigenous leadership within State structures is also pedagogical: it allows public agents, in the broadest sense, to begin shedding the colonialist mindsets still embedded in administrative practices.

At the same time, it remains essential to invest in Indigenous-led institutional projects, ensuring that resources flow directly to Indigenous communities and their organizations. Notably, climate funding and support play a critical role in strengthening and expanding the efforts of traditional communities to confront the challenges of climate change.

THE VOICE OF INDIGENOUS PEOPLES AND CLIMATE (IN)JUSTICE

BY SULIETE GERVÁSIO MONTEIRO[10]

Preliminary data from the 2022 Demographic Census, conducted by the Brazilian Institute of Geography and Statistics (IBGE), reveal that Brazil is home to 1,694,836 Indigenous people, representing 0.8% of the national population. More than half of this population (51%) lives in the Legal Amazon, although Indigenous Peoples are present in 87% of Brazil's municipalities[11]. This distribution underscores the sociogeographic diversity of these peoples, who inhabit both urban and rural areas.

Indigenous Territories account for approximately 14% of Brazil's land area and are essential to environmental conservation, protecting 112 million hectares of native vegetation – equivalent to 20% of the country's total vegetation cover, according to MapBiomas[12]. Brazil is marked by the cultural and ethnic diversity of its peoples, and the 1988 Federal Constitution, in Article 231, recognizes the Indigenous Peoples' original rights to the lands they have traditionally occupied, as well as their social organization, customs, languages, beliefs, and traditions. It is the responsibility of the federal government to demarcate these lands, protect them, and ensure that all associated rights are respected[13].

Indigenous Peoples have long fought for their right to land – a right that transcends material ownership or the use of land for planting and harvesting. For them, it is about *territory*. From the Indigenous worldview, territory is the most valuable asset, and the central struggle has always been for its demarcation and protection. This protection is not limited to physical, productive, or economic aspects; territories are vital spaces for the spiritual and cultural vitality of communities, where diverse forms of life coexist.

The Indigenous conception of land and territory encompasses beings, spirits, resources, values, knowledge, and traditions – all fundamental to the preservation and meaning of life, both individually and collectively[14]. As expressed by Indigenous leader Eliara Guarani (2022): "Through Indigenous spirituality, I see that

---

10 A member of the Baré People from the Rio Negro region in Amazonas, Suliete holds a bachelor's degree in Forest Engineering from the University of Brasília and a master's degree in Human Rights and Citizenship (PPGDH/CEAM/UnB). Actively engaged in the Indigenous movement, she advocates for the rights of Indigenous Peoples and previously served as president of the Association of Indigenous Students at the University of Brasília (AAIUnB). She is currently the Director of the Department of Climate Justice at the Ministry of Indigenous Peoples.

11 IBGE – Brazilian Institute of Geography and Statistics. 2022 Demographic Census. Rio de Janeiro: IBGE, 2023. Available at: **https://censo2022.ibge.gov.br/panorama/** Accessed on November 22, 2024.

12 MapBiomas. Annual Land Use and Cover Mapping Project in Brazil – Version 8.0. 2023. Available at: **https://brasil.mapbiomas.org/**. Accessed on January 15, 2024.

13 BRAZIL. [Constitution (1988)]. Constitution of the Federative Republic of Brazil. Article 231. Brasília, DF: Federal Senate, 2021. p. 125.

14 MONTEIRO, G. S. *The return of Xawara in Yanomami territory: conflict, struggle, and resistance*. Master's dissertation (Human Rights and Citizenship). University of Brasília. Brasília, 2023. Available at: **http://repositorio2.unb.br/jspui/handle/10482/45630**. Accessed on February 15, 2024.

nothing is impossible. I know that everything we take from nature is borrowed, and that one day, nature itself will demand it back. And that is what is happening today. Floods, hurricanes, cold, disease... these are the consequences of nature's justice. Everything we take from nature, we will eventually have to return."

For Indigenous Peoples – and especially for Indigenous women – the concept of territory goes beyond the conventional geographic definition. Territory is not merely a physical or measurable space; it is deeply connected to identity, ancestry, and traditional knowledge. Even when we are away from our ancestral lands, we carry with us the wisdom and legacy of our people. We are bodies in motion – we are body-territories. The movement Indigenous Women Warriors of Ancestrality[15] has been at the forefront of advancing this profound and vital understanding of the inseparability between our bodies and our territories.

When we speak of the Indigenous body as territory, we are called to reflect beyond the conventional understanding of the body. As Indigenous women, we are born into places shaped by their environments and biomes. Our bodies carry ancestral and spiritual inheritances, along with the collective wisdom of our peoples. This is what we mean when we speak of body territory – a living connection between land, identity, and knowledge (Baniwa, Kaingang, and Macuxi, 2023).

When we leave our villages, communities, and territories, we carry with us the deep knowledge rooted in our lands. Even when we are far from our traditional territories, our biomes, or our ancestral villages, our bodies bear the imprint of our peoples' collective identity – the wisdom of our elders, our ancestry, and our spirituality (Baniwa, Kaingang, and Macuxi, 2023). It is this spirituality that sustains and strengthens us, whether we are within our territories or beyond them.

Indigenous territories are essential not only to the well-being of Indigenous Peoples but also to the broader vision of living in harmony with the planet. Their importance extends beyond Indigenous communities – they are vital to the future of humanity. Indigenous knowledge systems are increasingly recognized for their crucial role in conserving biodiversity and contributing to the reduction of carbon emissions, both of which are central to advancing climate justice (FAO, 2021).

In 2023, the Intergovernmental Panel on Climate Change (IPCC) recognized that "Indigenous Peoples have been faced with adaptation challenges for centuries and have developed strategies in changing environments that can enrich and strengthen current and future adaptation efforts" (IPCC, 2023, p. 108). This acknowledgment underscores the critical importance of demarcating and protecting Indigenous lands in Brazil and calls for the creation of mechanisms that value, integrate, and apply Indigenous knowledge in climate action.

In a time of record-breaking heat, extreme rainfall, and prolonged droughts – clear manifestations of climate change – it is essential to center the voices and struggles of Indigenous Peoples, women, and youth. Indigenous Peoples have long been the unwavering guardians of forests, biodiversity, and the material and immaterial heritage of their territories. The immaterial includes spirituality and belief systems that are central to Indigenous worldviews.

---

15 Translator's Note: in Portuguese, *Mulheres Indígenas Guerreiras da Ancestralidade*

There is no meaningful response to the climate crisis without the protection of Indigenous rights, the demarcation of Indigenous territories, and, above all, respect for Indigenous cultures, beliefs, and traditions. It is crucial to continually reaffirm the importance of Indigenous Peoples to the future of humanity. When their territories are protected, they make a direct and vital contribution to confronting a crisis that affects all peoples, Indigenous and non-Indigenous alike.

As the climate crisis intensifies, Indigenous Peoples around the world are disproportionately impacted. Their livelihoods, cultural identities, and traditional ways of life are deeply intertwined with their lands, territories, and natural resources – many of which are increasingly exposed to extreme climate events such as heatwaves, droughts, intense rainfall, and permafrost thaw. Indigenous Peoples have long been on the front lines of the climate crisis[16], naturally protecting their territories for centuries.

Indigenous Peoples maintain a deep and interdependent relationship with their environments, cultivating sustainable ways of life, protecting natural ecosystems, and adapting to both climate variations and human-induced disasters. Their cultures, traditions, and spiritualities are intrinsically connected to their territories (Ecycle, 2023). Yet, invasions, colonization, land expropriation, and, in some cases, forced displacement have resulted in the loss of rights, increased poverty, and the confinement of many Indigenous communities to vulnerable regions with limited capacity to adapt to the climate crisis.

This intersection of historical and environmental injustices places Indigenous Peoples in a unique position to contribute sustainable, culturally grounded adaptation strategies. Through their body-territories of knowledge – comprising ontologies, practices, ethical values, beliefs, and traditions passed down through generations – they offer vital insights and alternatives for confronting the climate emergency. Today, nearly 500 million people – approximately 6% of the global population – identify as members of Indigenous groups, including the authors of this text (UN, 2024).

We, Indigenous Peoples, are essential to addressing the climate crisis. Studies show that the largest and most well-preserved protected areas are Indigenous Lands. These territories play a critical role in conserving and safeguarding the environment, sociobiodiversity, and climate. In the Amazon region, Indigenous Peoples are responsible for maintaining the forest and ensuring it continues to provide vital ecosystem services[17].

One of these services is global climate regulation through forest carbon storage. Indigenous territories, for example, act as massive natural air conditioners – cooling regional temperatures by up to 5°C and contributing moisture through

---

16 Ecycle. A juventude indígena deve estar na vanguarda da diplomacia climática. 2023. Available at: **https://www.ecycle.com.br/a-juventude-indigena-deve-estar-na-vanguarda-da-diplomacia-climatica/**. Accessed on February 9, 2024.

17 Ecosystem services are essential benefits provided by ecosystems to society, contributing to the maintenance, restoration, or improvement of environmental conditions and directly influencing people's quality of life. Source: Brazilian Ministry of the Environment. *Serviços ecossistêmicos*. Available at: **https://www.gov.br/mma/pt-br/assuntos/biodiversidade-e-ecossistemas/ecossistemas/conservacao-1/servicos-ecossistemicos**. Accessed on April 4, 2024.

plant transpiration and soil water evaporation[18]. Forest carbon is stored in tree roots, trunks, stems, and leaves. Climate change and Indigenous Peoples are directly linked through the preservation of these territories, which are essential not only for present resilience but also for the well-being of future generations.

Numerous studies have shown that environmental quality within Indigenous Lands is often higher than in other protected areas under similar conditions. Highlighting the struggles and resistance of Indigenous Peoples in Brazil is increasingly urgent – especially in light of the alarming rise in global temperatures in recent years. Recognizing and amplifying these efforts is essential to understanding climate justice and ensuring effective responses to the climate crisis.

Climate justice and Indigenous Peoples

In 2023, Brazil experienced alarming climate anomalies, including rainfall and drought patterns far outside historical norms – most notably in the state of Amazonas. That year, a severe drought affected approximately 633,000 people, according to a report by the State Civil Defense Agency. Of the state's 62 municipalities, 59 declared a state of emergency due to the drought. In total, 158,000 families were impacted.

The government of Amazonas officially declared a state of emergency in 55 municipalities. In Manaus, the drought was the worst recorded in 121 years, with the Rio Negro reaching a historic low of 12.89 meters – the lowest level since measurements began in 1902[19]. Indigenous riverside communities along the Solimões and Rio Negro rivers were among the hardest hit. The drought disrupted their daily lives, affecting food systems, mobility, and sociocultural practices, and highlighting once again the vulnerability of Indigenous territories to the intensifying climate crisis.

In this context, the issue of environmental (in)justice becomes central. Indigenous Peoples, who have long served as guardians of forest conservation through their territories and ancestral knowledge, are among those most directly affected by climate change. Robert D. Bullard, widely regarded as the father of environmental justice, defines climate justice as a *"set of principles and practices that: – ensure that no social group, be it ethnic, racial or social, bears a disproportionate share of the negative environmental consequences of economic operations, policy decisions and federal, state and local programs"* (Bullard, 1994, apud Acselrad et al., 2009). Environmental justice, therefore, affirms the right of all peoples to a safe, healthy, and sustainable environment – one in which communities can maintain their collective ways of life without being subject to external climate disruptions.

---

18 FELLOWS, M; RATTIS, L; REBELATTO, B; ANDRADE, A; ARRUDA, F; ROCHA, E; MACHADO, M; SILVESTRINI, R; MACEDO. M; GUEDES, B; SHIMBO, J; PINHO, P; ALENCAR, A; COE, M; GUIMARÃES, A; MARACAHIPE-SANTOS, L; MOUTINHO, P. IPAM. *O papel dos povos indígenas na proteção do clima e da sociobiodiversidade*, 2023.

19 Nascimento, L. A seca no Amazonas afeta mais de 630 mil pessoas. Agência Brasil, 2023. Available at: **https://agenciabrasil.ebc.com.br/geral/noticia/2023-10/seca-no-amazonas-afeta-mais-de-630-mil-pessoas**. Accessed on February 15, 2024.

Thus, climate justice emerges as a dimension of environmental (in)justice, drawing attention to the disproportionate impacts of climate change on specific social groups. These impacts are not only environmental – they are also cultural and social – and must be understood through the lens of environmental justice[20]. It is essential that climate change debates, and discussions on environmental and climate justice, meaningfully include Indigenous Peoples.

This is a critical issue that must be approached from an Indigenous perspective. For Indigenous Peoples, the concept of territory is inseparable from their worldview. Climate is part of the territory. When land use changes occur – such as the deforestation and burning of forests to make way for pasture, monocultures, or other extractive land uses – large amounts of carbon are released into the atmosphere as CO_2, contributing to global warming[21] and destabilizing the planet's climate systems. Indigenous Peoples are at the forefront of the struggle for rights, both through their own organizations and in alliance with broader civil society. A powerful example is the Acampamento Terra Livre (ATL), held annually every April since 2004, where hundreds of Indigenous leaders, women, and youth gather in collective resistance. With the climate agenda gaining urgency, many are mobilizing around this struggle – which is not only Indigenous, but global.

Confronting the climate crisis

"We are already witnessing the consequences of climate change, as reported by our Indigenous Environmental Management Agents, who have documented recent events in the Rio Negro region. These observations are deeply concerning, and we view the current environmental situation in the Rio Negro with growing alarm..." (Elson Kene, young Indigenous leader of the Tukano people, 2023)

In August 2023, a workshop on climate justice was held in São Gabriel da Cachoeira, organized by the Instituto Socioambiental (ISA). The event brought together Indigenous youth from São Gabriel da Cachoeira, coordinated by the Department of Adolescents and Youth of the Rio Negro (DAJIRN), which is linked to the Federation of Indigenous Organizations of the Rio Negro (FOIRN), along with members of the Wayuri Network of Indigenous Communicators. Fifteen young Indigenous leaders, mobilizers, and communicators participated, representing eight ethnic groups of the Rio Negro region: Arapaso, Baniwa, Baré, Desana, Pira-tapuia, Tukano, Wanano, and Yanomami[22].

---

20 LOUBACK, Andréia Coutinho (coord.). Quem precisa de justiça climática no Brasil? Brasília, DF: *Gênero e Clima*: Observatório do Clima, 2022. Available at: **https://generoeclima.oc.eco.br/lancamento-quem-precisa-de-justica-climatica-no-brasil/**. Accessed on April 20, 2024.

21 **https://ipam.org.br/entenda/como-o-desmatamento-contribui-para-as-mudancas-climaticas/#:~:text=Quando%20ocorrem%20mudan%C3%A7as%20no%20uso,assim%2C%20para%20o%20aquecimento%20global**

22 RADLER, J. *Juventude do Rio Negro: é urgente falar de justiça climática e racismo ambiental nas Terras Indígenas*.Instituto Socioambiental (ISA), September 25, 2023. Available at: **https://www.socioambiental.org/noticias-socioambientais/juventude-do-rio-negro-e-urgente-falar-de-justica-climatica-e-racismo**. Accessed on March 10, 2024.

Extreme heat harms agriculture, heavy rains flood and destroy crops, and forest fires lead to droughts and the isolation of communities and villages – these are just some of the climate change impacts experienced and reported by Indigenous Peoples living in communities in the Upper Rio Negro region, known as *Cabeça do Cachorro*, near the borders with Venezuela and Colombia[23]. Indigenous youth have emphasized the importance of discussing issues such as climate justice, environmental justice, and environmental racism in assemblies they organize themselves, aiming to bring these topics to the forefront and ensure they are more widely and regularly addressed.

"...We need to be part of this discussion from now on, so we can participate in a topic that is extremely important to us and will have a major impact in the future. We must present our proposals as youth and as Indigenous residents of the Rio Negro. We have our own way of managing the environment – from our agricultural systems that ensure food security to other forms of stewardship of the world around us..." (Elson Kene, young Indigenous leader of the Tukano people, 2023)

As mentioned earlier in the introduction, Indigenous Peoples are well aware that environmental balance is shifting. Extreme events are occurring more frequently and at smaller scales, affecting cultural practices and the well-being of communities across their territories.

Climate change is undeniably affecting Indigenous Peoples. On October 16, 2023, the Rio Negro[24] reached a historic low of 13.59 meters, and water levels continued to drop until, for the first time in 121 years, they fell below 13 meters[25]. The three municipalities along its banks were severely impacted. The Mid Rio Negro region was among the hardest hit by the drought, with all 23 Indigenous Peoples in the area feeling the effects of a crisis clearly intensified by climate change.

The IPCC's Fifth Assessment Report (AR5), prepared by Working Group II, recognizes that Indigenous Peoples are among the most affected by climate change, as their livelihoods and ways of life are deeply connected to the land. In Brazil, the Map of Conflicts, Environmental Injustice, and Health, produced by Fiocruz[26], documents 199 conflicts involving Indigenous Peoples. Of these, 21 explicitly cite climate change as a contributing factor.

In addition to socio-environmental impacts, the report identifies serious health consequences, including reduced quality of life, respiratory problems, malnutrition, and food insecurity – effects that arise from the interaction between climate change and other compounding threats. Indigenous Peoples have suffered irreversible damage to their languages, knowledge systems, and traditional means of subsistence as a result of climate change and biodiversity loss.

---

23 Ibid. Accessed on February 28, 2024.

24 The Rio Negro is located in the northwestern Amazon. Along its banks lie three important municipalities: Barcelos (Lower Rio Negro), Santa Isabel do Rio Negro (Middle Rio Negro), and São Gabriel da Cachoeira (Upper Rio Negro).

25 Monteiro, E. Após seca atingir histórica, Rio Negro começa o processo de cheia em Manaus. G1 AM. Available at: **https://g1.globo.com/am/amazonas/noticia/2023/11/28/apos-atingir-seca-historica-rio-negro-comeca-processo-de-cheia-em-manaus.ghtml**. Accessed on April 10, 2024.

26 Fiocruz. *Mapas de Conflitos, Injustiça Ambiental e Saúde no Brasil*. 2024. Available at: **https://mapadeconflitos.ensp.fiocruz.br/**. Accessed on April 11, 2024.

The impacts of climate change on Indigenous territories are clear and far-reaching – affecting not only the land itself but also the health, education, well-being, and spirituality of Indigenous Peoples. According to Medeiros (2023)[27], communities experience the climate crisis firsthand, particularly as they witness a reversal of values in the global commodification of climate preservation. While corporations target Indigenous territories in pursuit of profits on the carbon market, biodiversity is being lost – species are going extinct, manioc cuttings, fruits, and a wide variety of seeds are disappearing due to severe droughts. This loss has contributed to a growing reliance on processed foods, undermining traditional food systems and food sovereignty.

Indigenous Peoples report that rivers are drying up more rapidly, medicinal plants are disappearing, and their traditional calendars are changing (Medeiros, 2024). These disruptions are directly impacting cultural practices and ways of life. The very peoples who contribute most to the conservation of forests are the ones suffering most acutely from these transformations.

Historically and culturally, Indigenous Peoples live collectively and pass knowledge orally from one generation to the next. Learning occurs through storytelling, experience, and observation. As a child, I, along with my siblings and cousins, would accompany our parents and grandparents to the fields. While we played, we helped plant cassava cuttings, pineapple, banana, manioc, and peppers. These teachings from our elders are shared through lived experience and oral tradition.

In this thesis, alongside Western academic approaches, I will adopt Indigenous methodologies – grounded in traditional knowledge and cultural practices. These methodologies reflect the sciences and wisdom of our peoples, passed down through generations, shaping and strengthening the collective struggle of Indigenous Peoples.

Climate justice means demarcating indigenous lands

Land has long been at the heart of historical conflicts in Brazil – from the so-called "discovery" of the country to the present day. For centuries, Indigenous Peoples have fought for the recognition and demarcation of their territories. What is often referred to as discovery, we Indigenous Peoples recognize as invasion – an invasion that led to the decimation of entire communities, the dispossession of traditional lands, and, in many cases, the unlawful seizure of territory by the State itself.

The *Report on Violence Against Indigenous Peoples*, published by the Indigenist Missionary Council (CIMI), reveals alarming rates of violence, including the murder of Indigenous individuals across Brazil. Both this report and other referenced documents highlight a troubling trend: the steady increase in violence against Indigenous Peoples in recent years. This escalation is largely fueled by the State's ongoing failure to address Indigenous issues with the urgency and seriousness they

27 MEDEIROS, B. N. Mudanças climáticas, gênero e povos indígenas. UnB Notícias, 2023. Available at: **https://noticias.unb.br/artigos-main/6690-mudancas-climaticas-genero-e-povos-indigenas**. Accessed on April 29, 2024.

require – especially regarding the demarcation of Indigenous lands – which has led to repeated and widespread violations of their rights[28].

The demarcation of Indigenous Lands has always been a key priority for the Indigenous movement, and it has gained even greater visibility with the creation of the Ministry of Indigenous Peoples (MPI). This agenda is vital – not only for the protection of Indigenous rights but also because Indigenous Peoples are essential allies in the fight against the climate crisis and in the advancement of environmental and climate justice.

However, even though our rights are recognized under Article 231[29] of the Federal Constitution and reaffirmed through international commitments ratified by Brazil[30], the advancement of Indigenous rights – particularly in long-standing processes such as the demarcation of Indigenous Lands – remains limited. According to data from the federal government, more than 150 Indigenous territories are still awaiting formal titling for Indigenous ownership and use. This number is even higher when considering territories whose demarcation processes have not yet been initiated (Fellows et al., 2024) [31].

The Indigenous movement in Brazil consistently emphasizes that reducing greenhouse gas emissions depends on the demarcation of Indigenous Lands. These territories represent approximately 14% of the national territory, and it is clear that territorial recognition – alongside the implementation of the National Policy for Environmental and Territorial Management of Indigenous Lands (PNGATI, the acronym in Portuguese) – stands as one of the most effective and promising strategies for climate mitigation and adaptation. Advancing this policy is essential for Brazil to meet its climate targets.

Policies for the demarcation and protection of Indigenous Lands offer a strategic path for Brazil to achieve its Nationally Determined Contributions (NDCs). Indigenous science – shaped by millennia of traditional knowledge and ways of life – is fundamental to sustaining climate balance (Fellows et al., 2024). Integrating climate policy with the demarcation of Indigenous territories represents a concrete and rights-based approach to advancing effective, lasting climate solutions.

In this sense, it is not possible to meaningfully address the climate crisis, environmental justice, or climate justice without recognizing the ancestral contributions of Indigenous Peoples in protecting and caring for their territories.

---

28 Conselho Indigenista Missionário (CIMI). To access the reports produced by CIMI: https://cimi.org.br/observatorio-da-violencia/o-relatorio/. Accessed on May 20, 2021.

29 Article 231 of the 1988 Federal Constitution recognizes the Indigenous Peoples' social organization, customs, languages, beliefs, and traditions, as well as their original rights to the lands they have traditionally occupied. It is the responsibility of the federal government to demarcate these lands, protect them, and ensure respect for all associated rights and property.

30 ILO Convention 169 on Indigenous and Tribal Peoples, adopted in 1989, establishes key principles that guide its interpretation—most notably, the right to consultation and participation of the concerned peoples. It affirms their right to define their own development priorities insofar as these affect their lives, beliefs, institutions, spiritual values, and the lands they occupy or use.

31 https://apiboficial.org/files/2024/11/Demarca%C3%A7%C3%A3o-%C3%A9-Mitiga%C3%A7%C3%A3o.pdf

CHALLENGING CLIMATE CHANGE: BRIDGING TRADITIONAL KNOWLEDGE AND INDIGENOUS SCIENCE

BY SINEIA DO VALE

As the impacts of climate change become increasingly severe, Indigenous communities – led by the Roraima Indigenous Council (CIR) – are playing a central role in advancing sustainable economic alternatives. With over 50 years of advocacy in the region, CIR has been a key actor in raising awareness and mobilizing grassroots Indigenous communities. Since 2011, it has focused on strengthening understanding of climate change and its direct effects on Indigenous ways of life – particularly in relation to fishing, hunting, and small-scale agriculture – while promoting the integration of traditional knowledge and Indigenous science in the search for effective solutions.

As Indigenous peoples have engaged more deeply with the issue, their understanding of climate change and its impacts has sharpened, making it possible to develop plans and alternatives to confront the crisis – despite the lack of public policies to address the challenges at hand. Today, CIR counts on approximately 240 volunteer territorial and environmental agents who work within their own communities across the state. These leaders play a vital role in gathering and producing information, both to strengthen internal dialogue within their villages and to inform broader audiences beyond their territories.

Between 2011 – when CIR intensified its efforts to identify the challenges faced by Indigenous communities – and 2014, Indigenous peoples from Roraima developed the first Climate Change Response Plan specifically for the Serra da Lua region, home to approximately nine thousand Indigenous people[32]. The plan became a key reference for Brazil's Ministry of the Environment, particularly in shaping the National Climate Change Adaptation Plan (PNA, the acronym in Portuguese). This marked a significant milestone, as the research and strategies were led and developed by Indigenous youth, women, and community leaders – affirming the central role of traditional knowledge in national climate policy.

The role of women was a central highlight in the development of the plan. Indigenous women are widely recognized for their deep connection to community well-being and their attentiveness to essential issues such as water resources, traditional medicine, small-scale farming, and forest care. These activities are not only part of their daily routines but also reflect their broader role in sustaining life and caring for others – making their contributions vital to the plan's success.

Despite the technical complexities often associated with understanding climate change, the lived experiences of Indigenous peoples reveal that both the issue and the pathways to address it are embedded within the villages themselves. The changing realities in Roraima – such as the recent floods that have submerged entire communities – have prompted a deeper reflection on climate change, grounded in ancestral knowledge and strengthened, when appropriate, by the use of modern technologies.

---

32 Data retrieved from the website of the Roraima Indigenous Council: **https://cir.org.br/site/2019/12/10/protocolo-de-consulta-dos-povos-indigenas-da-regiao-serra-da-lua-e-aprovado-na-45a-assembleia-regional-das-liderancas/**

What has changed over the past 20 years for traditional communities? Have the rivers warmed? How have water resources shifted? How many native fish species have disappeared from Indigenous territories? These were some of the guiding questions behind the creation of the Climate Change Response Plan.

One notable initiative led by Indigenous communities in Roraima to better understand and adapt to climate challenges was the creation of a living seed bank. Designed to identify which species are most resilient to the dry and rainy seasons, this strategy enabled families to reproduce seeds during specific periods, ensuring a reliable food supply throughout the year.

At this stage, Indigenous peoples stand out as true climate experts – possessing knowledge that transcends scientific studies and is deeply rooted in their reciprocal relationship with nature.

Another clear expression of this expertise is the understanding – shaped by centuries of traditional knowledge and refined through ongoing observation – that agricultural practices must follow ethnoecological calendars[33]. These calendars consider factors such as harvest periods, controlled burns, and even birdsong to guide planting and ensure productive harvests.

At the same time, while climate change was only beginning to gain attention among environmentalists and the broader public, its impacts were already a harsh reality for traditional communities – who are consistently among the most affected. Those living in the forest – be they Quilombola, riverine, or Indigenous – are the ones who most directly feel and endure the effects of a changing climate.

One example of this is the work being carried out in Roraima through case studies that seek to understand how Indigenous peoples have perceived climate change over the past 20 years. Communities have observed that the water in the streams (*igarapés*[34]) has warmed and that certain native fish species have disappeared. These changes directly affect cultural and social life, as well as income generation.

In light of this, it is essential to create spaces for dialogue and research on climate change within the villages themselves. Only through close engagement can one truly grasp the depth of Indigenous knowledge and the ways in which these communities have long mobilized to confront climate-related challenges – even without fully understanding their origins. Beyond the global dimension, climate change is also a deeply local reality.

In the forest, communities must deal directly with the impacts of nearby developments – such as the establishment of soybean plantations next to their territo-

33 Ethnoecology can be translated as traditional ecological knowledge, with a focus on the knowledge held by local populations. In this sense, the ethnoecological calendar, based on traditional knowledge, allows the Wapichana people to identify the best time for planting. It also helps them observe the impacts of climate change on their territories. For example, there is a growing perception that the planting season has changed—reflected most clearly in the songs of birds, which traditionally signaled the right time to plant. However, the planting season, which used to coincide with the rains, is now marked by drought. The Amazonian dry season now resembles the rainy season, with constant rainfall. This directly affects crops, as pests that were previously absent are now present. There are caterpillars that feed even on the roots of plants, leading to total crop loss.

34 Regionalism (Amazonas) – A small river or narrow canal that allows passage only to *igaras* or small boats; stream, creek, brook. ETYMOLOGY: From the Tupi *yara-pé*. Definition retrieved from: **https://michaelis.uol.com.br/**

ries – which attract pests to traditional farms that are not treated with agrochemicals. When everything is extracted from the land, biodiversity disappears along with it.

The effects of local environmental changes have manifested in various ways, reflecting a reality that has already been scientifically confirmed. A study currently nearing completion is assessing the impacts of climate change on the Raposa Serra do Sol Indigenous Land.[35]

In this context, the active involvement of women and youth has once again played a leading role in gathering data and deepening the understanding of how the Raposa Serra do Sol Indigenous Land is adapting to climate change. Building on the traditional and manual methods used in the initial study, recent efforts have incorporated technological tools, including the *Alerta Clima Indígena* – a mobile application developed as part of the Indigenous Amazon Monitoring and Observation System (SOMAI, the acronym in Portuguese).

Alerta Clima Indígena facilitates the collection of data on climate-related events such as floods and droughts and provides support to communities affected by these changes. With this technological support, Indigenous peoples are now equipped with an additional resource to strengthen their responses to the climate crisis: the Climate Change Response Plan.

Therefore, beyond the wealth of knowledge generated by Indigenous peoples, the strengthening of public policies within communities is increasingly vital to ensure the sustainability and commercialization of subsistence production. A key example is the integration of locally produced foods into school meal programs. This practice not only provides nutrition that respects the cultural and dietary traditions of Indigenous groups but also fosters economic opportunities through the sale of local products.

In discussing this topic, the reflection naturally extends to the diversity of resources Indigenous communities have to offer. A focus on local production opens up the possibility of promoting healthier food practices, while reinforcing internal consumption within the communities themselves. This not only underscores the importance of sustainable production, but also highlights the need to encourage healthier eating habits at the community level.

One effective strategy is to promote Indigenous products in school meal programs – ensuring not only a nutritious food source for students, but also generating income for local families. In addition to strengthening the local economy, this initiative emphasizes the value of traditional knowledge and resources rooted in Indigenous territories.

In Roraima, CIR has been working to develop business plans within Indigenous communities as a means of consolidating and advancing the efforts led by the communities themselves. These plans not only help identify opportunities to market surplus production externally, but also reinforce the capacity to circulate goods and resources within their own territories, among their peers.

---

35 The Raposa Serra do Sol Indigenous Land (TIRSS, the acronym in Portuguese) is one of the largest in the state of Roraima, and the struggle for its demarcation became emblematic both in Brazil and internationally. Today, the TIRSS is divided into five ethno-regions: Raposa, Baixo Cotingo, Serras, Surumu, and Ingarikó. For more information, see: **https://cir.org.br/site/2021/07/10/cir-realiza-a-2a-oficina-para-estudo-caso-sobre-mudancas-climaticas-da-ti-raposa-serra-do-sol/**

Demonstrating both empowerment and resilience in seeking effective, self-determined pathways, Indigenous peoples have created their own mechanisms to guide their activities – such as consultation protocols and internal regulations. These initiatives reflect how Indigenous communities approach income generation on their own terms, emphasizing the importance of respecting and strengthening traditional practices. These tools also represent a form of legal innovation, as they help protect and promote ancestral knowledge and practices, including forest conservation, subsistence activities, and the generation of income. It is therefore essential to develop institutional arrangements that recognize, support, and reinforce these community-led efforts.

In addition, it is essential to develop internal strategies within Indigenous communities to foster local production and internal trade. By strengthening community ties and promoting the value of locally sourced products, Indigenous families can secure not only their food sovereignty but also create opportunities for sustainable income generation. The implementation of business plans within communities is an effective tool in this process, offering strategic direction for local economic development while promoting self-sufficiency and prosperity from within.

It was through participation in national and international climate discussions that efforts to secure opportunities for Indigenous peoples advanced – bringing them into the heart of these debates through the creation of the Platform of Indigenous Peoples and Local Communities, established under the United Nations Framework Convention on Climate Change (UNFCCC). Through this platform, Indigenous peoples contributed their traditional knowledge related to climate, creating a direct link between local communities and global decision-making forums on environmental issues.

This achievement reflects decades of Indigenous advocacy, beginning with the 1992 United Nations Conference on Environment and Development, known as ECO-92, where Indigenous leaders began asserting their right to direct involvement and active participation in global environmental discussions.

Given the urgency of strengthening Indigenous peoples in their territories and ensuring environmental conservation, it is crucial to maintain constant vigilance over the funding and implementation mechanisms intended to support Indigenous action on climate change. This is especially important when addressing fundamental issues such as the management of water and forest resources. Adequate resources and support must be directed toward enabling these communities to continue their millennia-long efforts to conserve forests and biodiversity, guided by their ancestral knowledge.

Nevertheless, it is important to emphasize that the protection of forests is not the sole responsibility of Indigenous peoples. This responsibility must be shared by all of society, as the benefits of their stewardship extend globally. Advancing the development of a comprehensive action plan to address the challenges of climate change in the Brazilian Amazon must include the promotion of policies that uphold Indigenous territorial and cultural rights and ensure the protection of their traditional ways of life.

Even in the face of the overwhelming reality of climate change, hope and determination must endure. It is essential to continue developing strategies that strengthen Indigenous peoples in their activities and traditions – especially be-

cause we are the ones on the frontlines of the forest, witnessing and enduring the impacts of an increasingly unstable climate. This is also what will ensure our survival: Indigenous peoples occupying their ancestral territories with empowerment and support.

It is inspiring to witness the richness of Indigenous culture expressed through craftsmanship and communal practices. Yet vigilance and solidarity remain essential – supporting the hard-won achievements of women and encouraging the active engagement of youth in the most critical spaces of dialogue. Now, more than ever, addressing climate change with urgency – and recognizing how it directly affects communities through extreme events such as floods and droughts – can make all the difference.

How will we address loss and damage within our villages, especially when it is Indigenous peoples who are consistently losing their crops, rights, and so much more? This raises a critical new discussion around how to respond to the losses and damages caused by climate-related events – one that demands rapid and effective action, rather than relying solely on adaptation and risk reduction projects.

It is also vital to closely monitor the resources allocated to climate action – such as the *Fundo Floresta* – to ensure that investments truly reach Indigenous territories and strengthen the initiatives taking place within the villages. In a context where the rights of traditional populations face constant setbacks, it becomes increasingly important to find innovative ways to create strategies that combine economic and food sustainability for Indigenous, riverine, Quilombola, and other traditional communities – rooted in their own territories.

May the leadership of traditional populations in the fight against climate change be truly recognized and valued – through sustained investment, adequate infrastructure, and the strengthening of ancestral knowledge. The pressures these peoples and territories face are not only local crises, but global ones, often unfolding first – and most violently – at the community level. Today's reality is a call to action: for governments, institutions, and society to co-create solutions and, above all, to stand in solidarity with those who have been protecting the environment for millennia.

THE POTENTIAL OF QUILOMBOLA LAND AND AGRICULTURE IN COMBATING CLIMATE CHANGE

BY ROBERVONE SEVERINA DE MELO PEREIRA DO NASCIMENTO[36]

Data from the Greenhouse Gas Emissions and Removals Estimation System (SEEG, the acronym in Portuguese) reveal that Brazil is currently responsible for the net emission of approximately 2.3 billion tons of greenhouse gases (GHGs), making the country the sixth-largest emitter on the planet. GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), which are present in the atmosphere and are responsible for the natural phenomenon known as the greenhouse effect, in which infrared radiation is absorbed by these gases and reflected back across the planet, raising the Earth's average temperature and making it warmer and more habitable.

Among greenhouse gases, carbon dioxide (CO_2) is the most abundant. It occurs naturally in the atmosphere and is part of several biological and environmental processes, such as photosynthesis, in which plants convert CO_2 into oxygen, and the regulation of the planet's temperature. However, the excess CO_2 resulting from human activity, such as the burning of fossil fuels (derived from oil, coal, and natural gas) for energy generation, industrial activities and transportation; deforestation; and agriculture and livestock, has reached unprecedented levels, now higher than at any other time in history. Global average data on the abundance of GHGs, obtained by the World Meteorological Organization (WMO), showed a 150% increase in CO_2 in the year 2022 compared to pre-industrial levels. In that same year, global average concentrations of carbon dioxide (CO_2) were, for the first time, 50% above the pre-industrial era, and still continued to rise in 2023.

Human activities, or anthropic actions, have a direct impact on the climate and have intensified due to global economic and population growth, which has led to increased consumption and the need to expand land used for agriculture, as well as the construction of new industries, roads, and other means of communication. These activities result in the growing exhaustion of natural resources, the overwhelming loss of biodiversity, increased air and water pollution, soil degradation, increased deforestation (forest clearing) that facilitates both the expansion of agribusiness and land speculation, and the degradation of ecosystems.

All of this has contributed to the emergence of more frequent and dangerous extreme weather events, making the "climate emergency" clearly visible today. One example was in Brazil in 2024, when the entire state of Rio Grande do Sul was affected by floods and overflowing rivers, landslides, and mudslides, impacting around 2.4 million people. In 2023, the disaster was a severe drought in the Amazon, which left isolated populations without river access. In 2022, over 100 people died in the state of Pernambuco due to heavy rains – the worst tragedy the state had seen in the last 50 years. For this reason, it is urgent to reflect on climate change, its concept, its challenges, and its opportunities.

In light of this scenario, it is worth highlighting the commitment made by the Brazilian government when it signed the Paris Agreement – a global treaty adopt-

36 Agricultural Engineer, Master in Soil Science, and PhD in Sustainable Production. Researcher on public policies for traditional communities. Senior Consultant at the Tenure Facility. On leave from her position at INCRA.

ed in December 2015 by the signatory countries of the United Nations Framework Convention on Climate Change, during the 21st Conference of the Parties (COP21). Under the agreement, Brazil pledged to act to keep the global average temperature rise "well below" 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C. The country committed to reducing greenhouse gas emissions by 37% by 2025, with a subsequent indicative contribution of a 43% reduction by 2030, as stated in its Nationally Determined Contribution (NDC).

However, this commitment will only be achievable if the Brazilian government addresses the issue of deforestation, ensures the demarcation of Indigenous lands and the titling of quilombola and traditional territories, and promotes effective access to information, technologies, and productive processes to establish sustainable production systems – for both agribusiness and family farming. These systems must prioritize conservation-based agricultural practices that value natural resources, especially soil and water, but also biodiversity and ecosystem services. As a result, they can improve the quality of life of the population through the availability and consumption of healthy food and the sustainable use of natural resources.

Quilombos in Brazil: land titling and sustainability

Quilombola communities, a legacy of Black resistance to the slavery system, began to form in the 16th century, living primarily through family farming. This form of social organization remains significant across Brazil, present in all regions and biomes, with nearly 4,000 communities certified as quilombo remnants by the Palmares Cultural Foundation (FCP). According to the 2022 Census, Brazil currently has a quilombola population of 1,327,802 people, with the only states where quilombola communities were not identified being Acre and Rondônia.

Despite the significance and relevance of the data presented, the Brazilian State has yet to ensure – and still often hinders – adequate access to essential rights for quilombola communities, particularly with regard to territorial security. Although the 1988 Federal Constitution legally guarantees the titling of their lands and other social rights, this constitutional provision has not been fully implemented. According to the National Institute for Colonization and Agrarian Reform (INCRA), there are 1,881 requests for the initiation of procedures to identify, delimit, recognize, demarcate, and title lands occupied by quilombola communities. Of this total, 264 identification and delimitation studies are currently in progress, and only 232 have advanced to the stage of a recognition ordinance being published. At this stage, the Brazilian State officially acknowledges the boundaries of the territory and becomes aware of the land situation it must address. The next steps include declaring the territory as being of social interest, compensating and removing intruders, and issuing the collective land use and ownership title.

To date, INCRA has issued only 58 collective land titles (partial and full), meaning that just 3% of quilombola territories have been titled by the Federal Government. A larger number of titles have been granted by State Governments, particularly in the states of Pará and Maranhão. At the current pace, according to an estimate by Terra de Direitos, it would take the Brazilian State 2,284 years to fully title the 1,881 open processes currently pending with INCRA.

It is important to note that the titles granted to quilombola communities are collective, *pro indiviso*, and issued in the name of associations that legally represent the communities. These titles are granted free of charge and include mandatory clauses that prevent the land from being sold, taken away, or lost over time. The titles must be registered with the Land Registry Office of the jurisdiction where the territory is located. Therefore, quilombola lands are collective, and once titled, they are permanently removed from the land market, contradicting the capitalist logic that treats land as a commodity subject to private appropriation. This is one of the reasons behind the resistance of the Brazilian State to granting land titles to quilombola communities.

Moreover, there has been little progress in reducing land concentration since Brazil's return to democracy. This is evident when analyzing land ownership inequality using the Gini Index, as reported in the 2017 Agricultural Census. Brazil's score was 0.87 – well above the regional average and among the highest in the world – demonstrating that land concentration in the country remains unchanged. This pattern is closely linked to historical processes of land grabbing, social conflict, and environmental degradation. The Census data also reveal that there are more Black rural producers (2.6 million) than white producers (2.2 million), across various types of crops and land sizes. However, when comparing land ownership by area, Black producers are the majority only on plots up to 5 hectares.

Brazil therefore continues to have an unequal land structure, marked by the racialization of access to land. The violation of the right to traditional territory for rural and urban Black communities with their own identities – who have been fighting for land for centuries – remains a persistent issue in the actions of the Brazilian State. As a result of the lack of quilombola land titling, driven by the growing concentration of land ownership, the number of quilombolas living in their territories has been declining year after year. This decline is the result of land dispossession (*desterritorialization*), as these communities are pushed out to make way for agribusiness projects serving capital interests, such as large-scale monocultures and other major ventures.

It is important to note that the sustainability of quilombola territories is directly linked to population density. This is a key factor in determining whether these land management units – based on sustainable use and occupation – can carry out agricultural activities that support both their livelihoods and the local market, while also conserving forest heritage within their boundaries. This involves the physical, economic, social, cultural, and environmental reproduction of the community. According to the 2022 Census, the North region has the largest territories, with the lowest population density. In other words, 31.3% of its quilombola population resides in demarcated territories – the highest proportion among Brazil's five major regions. It is worth noting that the North also has the largest territories in terms of area, meaning they are better suited to balancing environmental preservation with improvements in the quality of life of residents, supporting the continued presence of quilombolas on their lands.

Furthermore, the sustainability of quilombola communities is also the result of ancestral knowledge and a deep sense of local belonging. These elements ensure the continued existence and restoration of their territories, based on the physical, social, economic, and cultural reproduction of the community, without harming

the environment. Within these territories, areas are designated for housing, traditional agricultural use, environmental preservation, and the protection of water sources. All of these spaces are respected due to the presence of local community governance, which harmonizes ways of life, productive activities, and environmental sustainability, while upholding the identity and ancestral heritage of each traditional territory.

A study by MapBiomas identified 494 territories that are officially delimited, titled, or in the process of titling (including federal, state, and other titles), covering an area of 3.8 million hectares, of which 3.4 million hectares consist of native vegetation. Of the total area, 30% has been titled and 70% is still in the titling process. The study found that between 1985 and 2022, 240,000 hectares of native vegetation were lost. Of this total, 17% occurred in private areas, while only 4.7% was lost in quilombola territories under collective use. Notably, in titled territories, the loss of native vegetation was 3.2% during this period, compared to 5.5% in territories still undergoing the titling process.

The MapBiomas survey also found that most delimited quilombola territories (181) are located in the Amazon region, covering 2.5 million hectares. This is followed by the Atlantic Forest (136 territories), with 278 thousand hectares; the Caatinga (94), with 550 thousand hectares; the Cerrado (63), with 500 thousand hectares; and the Pampa (20), with 6.5 thousand hectares. The quilombola territories in the Amazon showed the lowest loss of vegetation and currently retain 73% native vegetation cover. In the Cerrado, native vegetation accounts for 12%, and in the Caatinga, 10%. In the Atlantic Forest, there was a gain of 7.8 thousand hectares of native vegetation.

These findings demonstrate the effectiveness of quilombola territories in managing land and natural resources sustainably. In addition to being among the areas with the lowest deforestation rates in Brazil, quilombos have also shown the ability to restore degraded areas within titled lands following the completion of land regularization processes. This contributes to curbing deforestation and highlights their capacity to implement climate change mitigation and adaptation strategies.

It is also important to highlight that the sustainability of Indigenous, quilombola, and other traditional community territories is positively impacted when their borders are interconnected. In many cases, these lands form a territorial mosaic – pieces of a broader, continuous landscape – found across all Brazilian biomes. The communities living in these areas are often connected through shared efforts to advance sustainable development, conservation, and the recognition of biological, social, and cultural diversity. However, delays in the land regularization process leave these territories more vulnerable. Without formal recognition, their boundaries are weakened, making them more susceptible to invasions by outsiders. This drives land speculation and allows intruders to enter and remain, leading to the contamination and degradation of water sources, pressure for infrastructure development, illegal mining, land grabbing, and increased burning. These threats negatively affect not only the land itself but also the forests, livelihoods, and cultural practices of Indigenous, quilombola, and traditional communities.

The Quilombola traditional agricultural system and soil quality

Brazil has significant agricultural potential due to its vast areas of arable land, favorable climate, abundant water resources, and the diversity of its crops, which include grains, fruits, vegetables, meat, and dairy products. As a result, the agricultural sector – driven largely by agribusiness – is a major force behind the country's trade balance. At the same time, the devolpment of agricultural practices play a crucial role in domestic food production, guided by social and environmental responsibility and respect for cultural traditions. This type of agriculture serves the internal market and is marked by a wide range of food products, such as beans, corn, cassava, fruits, and small-scale livestock, including chickens and pigs.

Quilombola communities maintain production systems in which cultural, historical, socioeconomic, and ecological elements come together to form a body of knowledge, practices, and resilient and sustainable techniques, shaping distinctive landscapes managed by the communities themselves. These systems are known as the "quilombola traditional agricultural system" (SATQ, the acronym in Portuguese). They are multifunctional systems in which agriculture serves as the economic foundation, alongside other activities such as livestock farming, fishing, extractivism, small-scale commerce, and services like community-based tourism.

In the SATQ, agriculture is based on crop diversity for self-consumption, on the farmers' local ecological knowledge, on strong social networks, and on the strategic management of the landscape. This includes cultivated areas surrounding household yards, near springs, rivers, or along paths connecting homes, as well as forest fragments that provide ecosystem services for the community and contribute to broader conservation efforts.

The way of life and agricultural practices in quilombola communities are closely influenced by their location. Most quilombos are found in regions with rugged terrain, limited infrastructure such as roads, and areas generally unsuitable for large-scale agriculture. In response to these conditions, communities adopt low-impact farming methods, including shifting cultivation and crop rotation. Their agriculture combines traditional knowledge with practical techniques, emphasizing the cultivation of heirloom seeds through intergenerational knowledge sharing – passed down orally and through hands-on, experiential learning. Farming areas are primarily dedicated to staple crops such as cassava, sweet potato, pumpkin, corn, and beans. These crops are low-cost to produce and resilient in the face of environmental stress.

Shifting agriculture is an ancient technique, known in Brazil as *roça de toca* or *coivara*, brought to Latin America – particularly Brazil – by enslaved Africans. It represents a strong cultural link between African peoples, quilombolas, and other Afro-rural communities across Latin America. In quilombola territories, this form of agriculture is part of the SATQ, which incorporates not only ancestral practices focused on subsistence, but also contemporary approaches that respond to current needs for community continuity and reproduction. These communities are not isolated; they are embedded in rural landscapes where their agricultural dynamics go beyond food production. Their systems prioritize the conservation of natural resources, the protection of environmental heritage, and the maintenance of soil and food quality.

The SATQ is a sustainable production system that follows agricultural principles aimed at restoring the ecosystem as a whole, enhancing natural resources rather than depleting them. It includes soil conservation practices that promote nutrient-rich soils and adequate water availability. The system integrates individually and collectively managed fields, home gardens, and the management of forested and agroforested areas. A central feature of SATQ is the establishment of *coivara* plots – clearings opened in forest or secondary growth areas through vegetation cutting, followed by the controlled use of fire. These plots are cultivated for three to five years and then left fallow. Cultivation resumes only after the vegetation has regenerated into a woody state, with varied forest layers.

Slash-and-burn agriculture, when practiced with proper fallow periods, has beneficial effects on soil properties. These include nutrient cycling, biodiversity conservation, low-intensity land use, and support for ecosystem regeneration – especially when compared to conventional agricultural systems. In this context, managed fire plays a central role. Its purpose is not only to clear the land but also to enrich the soil with nutrients released through the ashes produced by burning, while causing minimal changes to the quality of the soil's organic matter.

It is important to note that soil organic matter performs both "fertility" and "environmental" functions, particularly through the sequestration of soil organic carbon (SOC), which results from the decomposition of organic matter. In the SATQ system, agricultural areas are managed with minimal soil disturbance, without conventional soil preparation, ensuring the preservation of organic matter quality. Unfortunately, there are still very few studies on soil quality in quilombola lands. Yet such assessments could contribute significantly to the long-term sustainability of these agricultural systems. The available studies highlight the crucial role of maintaining organic matter, which is essential for fertility, productivity, and the sustainability of both agricultural and non-agricultural areas. These properties can be evaluated by measuring SOC, a sensitive indicator of land management practices, which is also simple and cost-effective to quantify.

However, the SATQ is under threat – both from the expropriation of quilombola lands and from the lack of public policies supporting productive inclusion. In many cases, communities have insufficient land and rely on simple technology and intensive manual labor, resulting in small-scale agricultural production primarily focused on subsistence. To reverse this situation, effective public policies must be implemented to promote productive inclusion. The State must move quilombola communities out of the condition of near social invisibility to which they have long been relegated and carry out inclusive actions that address the historical debt owed to them.

Moreover, according to the Food and Agriculture Organization of the United Nations (FAO), it is essential to take action to keep soils alive and protect their biodiversity, as soil is one of the largest reservoirs of global biodiversity. It supports agriculture and food security, regulates greenhouse gas emissions, and promotes the health of plants, animals, and people. In this context, the SATQ – with its centuries-old practices of sustainable biome management – can be considered a low-impact agri-food model. If recognized and valued, it has the potential to make a significant contribution to the future of food systems and food sovereignty in Brazil and beyond.

Mitigation and adaptation in quilombola territories in addressing climate change

To begin with, it is important to understand that climate change mitigation refers to human interventions aimed at reducing greenhouse gas (GHG) emissions from their sources and enhancing removals by carbon sinks such as soils, forests, and oceans. Adaptation, on the other hand, involves the process of adjusting natural and human systems in response to current or projected climate conditions, with the goal of minimizing or avoiding potential damages, or taking advantage of beneficial opportunities arising from climate change – regardless of mitigation efforts.

It is also important to remember that when a tree dies, the carbon stored within it is released into the atmosphere. This means that significant tree mortality – such as occurs through deforestation – results in large emissions of CO_2. In Brazil, the main environmental driver of emissions is not the direct burning of fossil fuels, but rather land use practices, particularly tropical deforestation through biomass burning.

Data from the National Greenhouse Gas Emissions Inventory revealed that the land use change sector accounts for 93% of Brazil's net CO_2 emissions. Of these emissions, 87% come from deforestation in the Amazon biome. The clearing of native vegetation in this biome – for agricultural crops, pasture, and timber production – was responsible for 1.12 billion gross tons of carbon dioxide equivalent (CO_2), representing 48% of the country's total emissions, according to a report by the Climate Observatory presented at one of the COP28 panels.

In this context, deforestation and burning have caused the Amazon, over the past decade, to shift from being a carbon sink to becoming a net emitter of greenhouse gases – worsening global warming. According to a Policy Brief by the Scientific Panel for the Amazon, while intact forest areas absorb 700 million tons of CO_2 from the atmosphere each year, human activities within the biome result in emissions of 1.8 billion tons of carbon annually. This clearly illustrates the serious risks currently facing the Amazon biome.

It is clear, then, that climate change poses a serious threat to the future of the planet. It is a reality that affects millions of people around the world, especially the most vulnerable. The increasing intensity and frequency of extreme weather events endanger the health and safety of millions – both through direct impacts and through the resulting challenges in food production and access to clean water. As a result, the poorest nations are the ones that suffer the most from the effects of climate change, despite having contributed the least to global emissions. In Brazil, the regions most vulnerable to climate change are the Amazon and the Northeast.

The Amazon and the Atlantic Forest are both forest biomes, yet they differ significantly in terms of size, topography, and rates of occupation – differences shaped by Brazil's historical development. The Amazon Rainforest occupies the northern part of Brazil and extends into neighboring countries in the northwest of South America. The Atlantic Forest stretches from northeastern Brazil down along the eastern coast to the south, passing through the country's largest cities in the Northeast, Southeast, and South regions. The central portion of Brazil is covered by the Cerrado, a savanna-like biome characterized by a drier landscape, with widely spaced trees and native grasslands. In the Northeast lies the Caatinga,

Brazil's only exclusively national biome, known for its semi-arid conditions. In the Central-West and South are the Pantanal and the Pampa, respectively. The Pantanal is the largest floodplain in the world, and both it and the Pampa have a historical association with cattle ranching. These two are also the smallest of Brazil's biomes.

MapBiomas conducted a study on soil organic carbon stocks (SOC) in Brazil and its biomes from 1985 to 2021, analyzing the temporal evolution of average SOC levels by land cover and land use class. The study found that the national average SOC stock is 45 tons per hectare. The average carbon stocks for Brazil's biomes were: 50 t/ha in the Atlantic Forest (forest formation), 49 t/ha in the Pampa (grassland formation), 48 t/ha in the Amazon (forest formation), 41 t/ha in the Cerrado (savanna formation), 39 t/ha in the Pantanal (grassland formation), and 31 t/ha in the Caatinga (savanna and grassland formations). Whether forest, grassland, or savanna, the vegetation of tropical biomes plays an active role in maintaining climate stability – both through carbon storage and by preventing CO_2 emissions via vegetation cover. These are essential factors for mitigating the greenhouse effect.

It is undeniable that the Brazilian Amazon holds one of the largest stocks of living biomass and carbon on the planet. However, each of Brazil's biomes, with its own unique characteristics, also has high potential for storing organic carbon in the soil. This has led to the understanding that carbon loss in one biome could be offset by gains in another. Several studies have shown that, on average, there may be up to five times more carbon stored below ground than above it – effectively turning the other biomes into an "inverted forest," at least in terms of carbon storage.

The Federal Government created the Sectoral Plan for Mitigation and Adaptation to Climate Change for the Consolidation of a Low-Carbon Economy in Agriculture (*Plano ABC*, in Portuguese) through Decree Nº 7,390 of December 9, 2010. This plan is one of the main instruments of Brazilian agricultural policy aimed at promoting sustainability. It includes measures to reduce greenhouse gas emissions and address the adverse effects of climate change in the agriculture and livestock sectors.

The first phase of Plano ABC spanned from 2010 to 2020. It is now followed by *Plano ABC+*, which covers the period from 2020 to 2030. *Plano ABC* is one of the sectoral plans developed under the National Policy on Climate Change (PNMC, the acronym in Portuguese) and forms part of the Brazilian State's strategy to mitigate greenhouse gas emissions and address global warming. Each state is responsible for developing its own Sectoral Plan for Mitigation and Adaptation to Climate Change for the Consolidation of a Low-Carbon Economy in Agriculture. Based on the commitments outlined in the national strategy, Plano ABC is structured around seven programs – six focused on mitigation technologies and one on climate adaptation:

- Recovery of Degraded Pastures;
- Crop-Livestock-Forest Integration (ILPF) / Agroforestry Systems (SAFs);
- No-Till Farming System (SPD);
- Biological Nitrogen Fixation (BNF);
- Planted Forests;
- Animal Waste Management;

- Adaptation to Climate Change, which includes:
  - Water resource management;
  - Polyculture;
  - Agroforestry systems;
  - Mulching;
  - Use of improved crop varieties and species; and
  - Harvesting of wild plants.

Implementation data for the policy reveal limited participation by family farming in *Plano ABC*. One key reason is that the ABC+ credit lines have higher interest rates than those offered through Pronaf (National Program for Strengthening Family Farming). Additionally, the most widely financed technologies under the program – Recovery of Degraded Pastures and the No-Till Farming System – are primarily geared toward large-scale production for export, such as beef cattle and soy farming. In contrast, technologies more relevant to family farmers, such as Animal Waste Management – especially for poultry and pig farmers, who are prevalent in Brazil's southern region – have seen low adoption rates.

The *Plano ABC+* includes the study, identification, and analysis of the social vulnerability of Indigenous Peoples, quilombola communities, and other traditional communities, which it links to the "sensitivity" component of climate change vulnerability. This is particularly relevant within Brazilian biomes facing increased risks such as flooding, landslides, shifts in species phenology, reduced fish stocks, threats to livelihoods and material assets, and the spread of disease vectors due to rising temperatures. The objective is to strengthen the resilience of these populations in the face of climate change.

Public policies should include research initiatives to assess traditional agricultural production systems practiced by quilombola and other traditional communities, particularly in light of the Quilombola Traditional Agricultural System (SATQ), which represents a model of sustainability. This system can serve as an adaptation strategy to help millions of farmers reduce their vulnerability to the impacts of climate change. Another important adaptation measure is the Quilombola Territorial and Environmental Management Plan, which aims to ensure the protection, recovery, conservation, and sustainable use of natural resources in quilombola lands and territories. The plan seeks to safeguard quilombola heritage, improve quality of life, and guarantee the full conditions for the physical and cultural continuity of current and future generations of quilombola communities, while respecting their sociocultural autonomy.

The importance of quilombola territories and their agricultural production systems in addressing climate change is undeniable. These communities adopt diverse management strategies, traditional knowledge, and practices that ensure the use, preservation, and adaptation of a wide variety of species. For this reason, the formal titling of quilombola lands is a *sine qua non* condition for the vitality of their production model, which encompasses multiple dimensions – thinking, doing, and acting according to their own time. In this way, quilombola agriculture is actively adapting to the climate emergency. Therefore, it is crucial that both national and international investments support the development of alternatives that allow quilombola family farming to adapt and recover its traditional production models, through the integration of technology, academic science, and quilombolas' empirical knowledge.

The right to territory within the climate agenda

TABLE OF CONTENTS

RURAL LAND REGULARIZATION IN THE 21ST CENTURY: INNOVATION AND LAND GOVERNANCE TECHNOLOGIES AS A FOUNDATION FOR ADVANCING BRAZIL'S CLIMATE AGENDA

POR BRUNO YOHEIJI KONO RAMOS[37] [38]

Common perceptions of land tenure regularization in the climate agenda

The debate on pathways toward a low-carbon economic transition is gaining momentum – particularly in the state of Pará. Within these discussions, five key claims have been repeatedly raised:

- The importance of recognizing land tenure regularization as a foundational pillar of the entire climate agenda and of payment for environmental services.
- The need to ensure legal certainty in land tenure regularization, without which it is impossible to develop the economic instruments of this agenda – namely: low-carbon agriculture (ABC, the acronym in Portuguese), agroforestry systems, conservation and restoration carbon markets, and the bioeconomy.
- The urgency of breaking the "land tenure crisis – conflict – land grabbing" cycle that has persisted for the past 40 years, often centered on debate, complaints, and research into the consequences of lacking land regularization. A disruptive movement has emerged, focused on building land tenure solutions for Brazilian society.
- Any hope for improvement in this scenario depends on knowledge of effective practices currently underway that help address the problem of weak or absent land tenure regularization in Brazil.
- The lack of awareness of successful practices, combined with limited expertise on the topic, generates uncertainty around forming partnerships and making investments in land tenure regularization initiatives.

For this reason, the strategic actions adopted by the State Government of Pará through the Land Institute of Pará (ITERPA) will be presented. In recent years, ITERPA has introduced a new model for managing land regularization processes,

---

37 President of the Land Institute of Pará (ITERPA). Coordinator of the Land Governance Sectoral Chamber of the Interstate Consortium for Sustainable Development of the Legal Amazon. Career Attorney at ITERPA. Holds a law degree, a master's in Diffuse and Collective Rights, and a post-graduate degree in Environmental Law and Strategic Sustainability Management from the Pontifical Catholic University of São Paulo (PUC-SP). Also serves as an in-house legal counsel at ITERPA.

38 Contributors: Flávio Ricardo Albuquerque Azevedo, Mariceli Nascimento Moura, Gabriel Ferreira Natário, and Fernanda Jorge Sequeira.

positioning itself as a reference in land governance. This concrete case can serve as a model for replication, and its outcomes have the potential to contribute to the creation of a secure legal and land tenure framework. Such a framework would enable income generation, improved living conditions for local communities, and environmental protection – objectives that are at the core of the climate agenda.

The experience, combined with good practices, offers a direct response to the common perception that this agenda is inherently challenging, and it aligns with all the points previously outlined. In addition, different models for financing land tenure regularization will be presented as alternatives to strengthen this public service and as a means to support the energy transition and enable access to a new low-carbon economy.

Why is land tenure regularization so essential?

All social, legal, and commercial relations necessary to support low-carbon production depend on the legal status of land ownership. It is this foundation that enables the financing of sustainable activities, the sale of carbon credits, and the traceability of products within the bioeconomy. Individuals and businesses interested in investing require, at the very least, a stable legal environment in which to allocate financial resources – both to ensure the success and transparency of new practices, and to safeguard the repayment of credit extended.

This scenario of social and legal stability can only be guaranteed through land tenure regularization. This is distinct from the Rural Environmental Registry (CAR, the acronym in Portuguese), which, although a key tool for environmental management and compliance, has often been misused as a temporary workaround or inappropriate substitute for land tenure regularization. Such misuse has undermined the integrity of the instrument over its sixteen years of existence.

Land tenure regularization is the primary criterion for verifying the legality of any activity. It represents land tenure compliance as an integral component of the overall legal compliance of any production, trade, or service system – including those introduced through the climate agenda.

It is what ensures the integrity of supply chains and prevents contamination across low-carbon production activities, carbon credit generation, and the bioeconomy – from producer to buyer – by guaranteeing the legal origin of the product. This is because land regularization is the only mechanism that allows for the secure legal identification of land ownership, thereby ensuring the following:

- social and environmental stability within the territorial space where the asset is generated and made available to the market;
- the identification of the rightful landholder, and consequently, the legal authority to negotiate and receive payment for the asset;
- the ability to trace all elements that ensure the product's legality.

Land tenure regularization has therefore become both the cornerstone of success and the potential point of instability for emerging sustainable business-

es, which are fully aligned with Brazil's socioeconomic context – particularly that of the Amazon region. Although Amazonian communities already provide environmental services, they have yet to receive any compensation due to the lack of land regularization.

Given this collective awareness, it is crucial to understand how to promote the necessary conditions and actions to avoid missing the opportunity to generate income and ensure environmental protection for our population. Moreover, the resulting tax revenues from future operations could be redirected to improve essential public services such as healthcare and education.

Transforming the land tenure landscape requires technical and financial support

Implementing a low-carbon production model requires substantial financial investment to make it accessible to smallholder farmers, diverse socio-environmental groups living in collective territories, and the majority of rural producers in Brazil. This challenge is particularly acute in the Amazon due to the so-called[39]."

To initiate any effort of this nature, it is essential to train local producers, hire skilled labor, and secure access to quality equipment, raw materials, and other key inputs.

Moreover, a strong and well-structured outreach strategy is needed to encourage adoption of low-carbon production practices. This demands robust financial support to ensure broad dissemination and effective implementation, moving beyond approaches based solely on command and control. Importantly, data show that environmental infractions and crimes are committed by a minority. Yet, when communication is driven by sensationalism and lacks technical grounding, it tends to generalize and stigmatize all producers in the Amazon.

For this reason, land tenure regularization stands as a strategic driver for advancing the energy transition. Once regularized, rural properties become legally and financially recognized assets, formally incorporated into the patrimony of smallholder farmers. This legal status allows the land to be used as collateral for obtaining financial resources through banking operations.

These financial resources, in turn, can be invested in a new production model to replace the prevailing practice of "slash and burn" agriculture. Although rudimentary, low-yielding, and highly detrimental to the climate agenda, this method is what many smallholder farmers have inherited from previous generations and is often the only option within their financial reach. It is therefore essential to acknowledge that practices are shaped by the social and economic realities available to each producer.

A diversified financing strategy ensures the opportunity to implement low-carbon production systems, while also enabling compensation for smallholder farmers not only for the environmental services they already provide, but also for those

39 Translator's Note: —a term that refers to the elevated logistical, infrastructural, and socio-environmental costs of operating in the region.

they could potentially offer. This guarantee – and the opportunities that stem from it – relies on a single pathway: land tenure regularization, without exception.

Indeed, the time has come to implement definitive solutions that only land regularization can offer. There is no longer room – or credibility – for alternative strategies that obscure or bypass this essential action. CAR must no longer be misused as a substitute for land tenure regularization, as doing so continues to undermine and discredit this important environmental management tool.

Brazil's rural population – responsible for ensuring the country's food security and making a meaningful contribution to the climate agenda – deserves respect and the effective delivery of land tenure regularization as a public service. This is essential to guarantee legal security for families and their property, and to foster the social stability that only secure land rights can provide.

From the standpoint of credit providers, a regularized property represents legal certainty and clear potential for low-carbon production. It signals that the land and its associated assets are situated within a stable legal and social framework, creating favorable conditions for investment and sustainable production. This enables wealth generation and provides the assurance needed to meet the repayment terms of financing agreements, in line with the economic projects required by financial institutions.

Land tenure regularization has the potential to drive productive chains and financial operations that foster the circulation of local wealth and create new income and employment opportunities across sectors directly and indirectly connected to this market. Practical examples include growth in the machinery, equipment, and input industries; expansion in civil construction; and the strengthening of commerce and a wide range of service sectors.

Moreover, it can play a vital role in supporting generational succession by encouraging younger generations to remain in rural areas. This contributes to national food security while helping to curb rural exodus and prevent the expansion of poverty in urban centers.

The 12 strategic actions of the Government of the State of Pará

All of ITERPA's ongoing planning and activities are structured around 12 key thematic areas, each with defined targets. The overarching aim is to enhance the efficiency and effectiveness of public land regularization services, ensuring greater coherence and impact. These strategic themes are:

- Political commitment at the State level
- Minimum structural conditions to ensure the delivery of quality public services
- Legislative updates
- Land accounting: surveying, qualification, organization, systematization, and standardization of land tenure data
- Management of land-related products and processes, data generation, and scientific research
- Human resource management, mindset shift, and transformation of organizational culture
- Updating methodologies for field operations and analysis of land regularization processes

- Collection, registration, and allocation of public lands
- Innovation and technological development: the SICARF platform
- Strategic partnerships
- Mediation and resolution of land-related conflicts
- Land tenure education

These strategic actions have been – and continue to be – essential for enabling ITERPA to operate in a coordinated and results-oriented manner within a structured management environment. Progress is measured through the organizational quality of land tenure data and the advancement of technology, with the goal of making land regularization more efficient. This includes increasing the number of regularized areas, whether through public land parcels or the issuance of individual or collective land titles.

The end of the "Paper Era" in land regularization and the beginning of the "Land Technology Era"

What remains the prevailing model for land regularization in Brazil? In essence, it is still entirely paper-based. Both the analysis and the preparation of technical and legal documents are done manually, one by one. Technology is used primarily for basic tasks such as typing, accessing the internet, or consulting analog maps. And even when digital tools are employed, the process is often entangled in a web of complex and bureaucratic steps, making outcomes unpredictable and progress exceedingly difficult.

Even as we move through the third decade of the 21st century – an age defined by the exponential and often astonishing advancement of technology across all areas of life – the pace of innovation in land regularization in Brazil remains stagnant. The process continues to lag behind, weighed down by outdated and inefficient methods.

In response, we have committed to developing a truly disruptive model – one in which technology is not merely a support tool but the very foundation of the system. This technological approach is the only effective way to address and overcome the persistent flaws of the historically dominant model.

For this reason, "Innovation and Technological Development" was designated as one of the "12 strategic actions" essential to modernizing and improving the delivery of public land regularization services.

SICARF: innovation and the development of land technology

For the land regularization processes involving public lands in the State of Pará, ITERPA has developed – and continues to enhance – an electronic platform known as SICARF, the State of Pará's official Land Registration and Regularization System. SICARF was formally established by State Decree Nº 1190, dated November 25, 2020.

SICARF is not an off-the-shelf software. It was developed by ITERPA based on the experience and technical expertise of its staff, drawing from both field operations and in-office analyses, with the goal of modernizing and streamlining the delivery of public land regularization services.

It is not merely a digitized or static process, but a fully electronic system that enables dynamic data processing and analysis. To support its broad implementation, SICARF is designed with the following features:

- Designed to innovate and develop land technology for end-to-end regularization – covering everything from land diagnostics and socioeconomic registration to the issuance of land titles;[40]
- Built using a programming language that enables interoperability with other systems via API, as well as scalability, replication, and customization for use in other States;
- Structured in modules and mobile applications, including: "Registration Module," "Georeferencing Module," "Agronomic Inspection Module," "Management Module," and "Environmental Monitoring Module";
- Configured with technical and legal criteria that meet land regularization requirements;
- Enables the organization of land databases and the use of filters for automated analyses;
- Designed with the necessary structure for future integration of artificial intelligence; and
- Developed through a dynamic and ongoing innovation and improvement process.

The service delivery pipeline for land regularization

Land regularization is not carried out in the same way as the Rural Environmental Registry (CAR). This distinction is critical to ensure that the limitations and uncertainties associated with CAR's self-declared data are not mistakenly attributed to land regularization processes.

For illustrative and methodological purposes, a land regularization process within SICARF, for example, must include the following six core components:

- **Land tenure assessment:** This is the preliminary study that determines whether a given area may be subject to land regularization for private use,

40 A Working Group is already in place, composed of members of the Land Governance Sectoral Chamber of the Interstate Consortium for the Sustainable Development of the Legal Amazon, which includes the nine States of the Legal Amazon, the Brazilian Association of Notaries and Registrars (ANOREG), and the National Registry Operator (ONR), under the leadership of the National Council of Justice (CNJ). The group's goal is to create the necessary legal and technological framework for system integration that enables the electronic registration of land titles.

based on pre-established technical and legal criteria within SICARF. These include whether the land has been officially incorporated and registered in the name of the State, and whether there are any legal impediments, socio-environmental restrictions, or land conflicts.

These reports are generated automatically using organized, qualified, and systematized land data within SICARF – data that form part of the so-called "Land Accounting," one of the "12 strategic actions" for advancing land regularization in the State of Pará.

- **Social mobilization:** This stage involves informing and engaging the community that will be covered by the land regularization effort. ITERPA communicates the planned timeframe for fieldwork, the list of required documents for registration, and preparatory instructions for georeferenced demarcation and agronomic inspection of each land parcel.

- **Registration of public land and its occupants:** This step involves collecting socioeconomic data and documents from the applicant and the land parcel. The information is entered into the "Registration Module" of SICARF (accessible online or offline), which is integrated with the federal public services portal: gov.br.

  All required and supporting documents are scanned and digitally uploaded to SICARF, eliminating the use of paper entirely in the process.

- **Physical demarcation (also commonly referred to as "georeferencing" or "demarcation"):** This is an engineering activity conducted in the field to determine and record the coordinates of the parcel's boundary vertices. The demarcation must be georeferenced to the Brazilian Geodetic System and comply with the precision standards set by the current INCRA Norm of Execution, which allows for a maximum positional error of 50 centimeters.

  All technical components of the georeferencing process are entered into SICARF's "Georeferencing Module," where they are analyzed and processed under the supervision of ITERPA land analysts. This stage includes legal and technical conformity checks and the automated generation of technical documents.

- **Agronomic inspection:** This is an on-site technical visit to assess the parcel to be regularized, verifying a range of factors such as: the socioeconomic data declared during registration (see item Social mobilization); length of land occupation; current production and the challenges faced due to the lack of legal title; absence of conflicts; and the existence of legal reserves and permanent preservation areas.

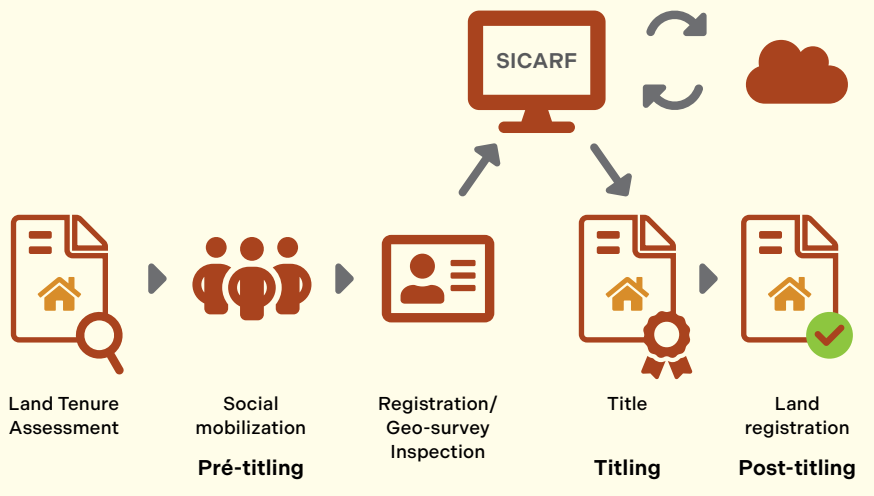
  This inspection is conducted using the "SICARF Inspection" mobile app, which generates an agronomic report with geospatial location data to con-

firm that the technician visited the property in person. The resulting report is then uploaded to SICARF through the "Inspection Module."

- Processing and analysis of the land regularization process: All data from the previous stages are stored and processed on a cloud server. From there, technical and legal analyses are conducted, generating official opinions and technical documents, including: land classification and confirmation of land availability for regularization; maps and descriptive memorials; land use and occupation reports; environmental assessments regarding deforestation; filters to block legally restricted areas; and the drafting of legal instruments.

  All of this is performed automatically, except for the legal opinion, which is prepared using a semi-automated process.

Figure 2: Workflow for land tenure regularization



This entire process is managed by land tenure regularization specialists within the agency, who contribute – either directly or indirectly – to the continuous improvement of SICARF. The strength of this package of deliverables, which includes documents, data, procedures, and the analysis of technical and legal criteria, leads to the issuance of a land title[41] that ensures "documentary legal security" for the regularized area.

41 The land title is the document through which the State formally recognizes that a given individual is the legitimate owner of a public land area they occupy, having met the technical and legal requirements established by law. It constitutes the final administrative act of the legal land tenure regularization process and takes on the nature of a public contract, as it includes obligations for the beneficiary in the form of resolutory clauses—such as compliance with the Forest Code—whose violation may lead to the title's cancellation.

The title includes the following authentication elements:

- **Authenticity QR Code:** confirms the authenticity and validity of the land title;
- **Georeferenced Location QR Code:** contains the map and descriptive report of the georeferenced area, ensuring that the title corresponds to a specific parcel of land;
- **Digital signature:** secured with certified encryption.

The results[42]

Following the implementation of the "12 Strategic Actions," there was a significant reduction in the time required to deliver the public land tenure regularization service. Until 2018, the average time to complete a regularization process was eight years, with approximately 1,700 titles issued per year. With the changes initiated in 2019, a learning curve and a continuous improvement process have led to the following scenario:

Change in average time to complete[43] a land tenure regularization process:
- Non-onerous processes (family farming): 45 days[44]
- Onerous processes (rural producers): 192 days

Increase in field operation productivity:
- Until 2018, a single ITERPA team, during a 30-day field operation, produced an average of 18 land tenure regularization processes for family farmers
- In 2024, under the same timeframe, but with new investments and a redesigned work model, one ITERPA team produces an average of 400 regularization processes

Number of land titles issued:
As of September 6, 2024, a total of 30,465 land titles had been issued in rural and urban areas. This corresponds to the regularization of these lands, benefiting 30,465 families and, consequently, 121,860 people.[45]

42 The results presented correspond to data collected up to September 6, 2024.

43 A study indicates that, until 2018, the average time required for land tenure regularization was eight and a half years.

44 This scenario refers to a land tenure regularization operation carried out by an ITERPA team composed of 16 professionals, conducted over a period of twenty-nine and a half days in a specific group of family farming communities within a municipality.

45 The average of four people per family was applied here, based on data from field operations conducted by ITERPA.

Other key results:

- Issuance of 31 collective land ownership recognition titles for quilombola communities, covering a total area of 50,553 hectares and benefiting 2,608 families[46]

- Issuance of 1,453 individual Concession Contracts for the Real Right of Use to family farmers from state settlement projects, and 11 collective Concession Contracts for the Real Right of Use for extractive communities in the Amazon, totaling 441,893.65 hectares and benefiting 3,602 families

- From its creation in 1975 to 2018, ITERPA had identified, incorporated, and registered 15,795,599.4125 hectares. From 2019 to August 2024, it identified, incorporated, and registered an additional 11,295,794.3324 hectares of unallocated public lands in the name of the State of Pará.[47]

Knowledge and technology transfer

The investments made and the learning curve initiated in 2019 led to the development of new knowledge and practices that resulted in unprecedented outcomes in Brazil. This enabled updates and adjustments to be made, with procedures and technologies designed in formats that allow for the replication of the model and the transfer of these technologies.

In this context, with the aim of strengthening, expanding, and improving the public land tenure regularization service in Brazil, ITERPA began signing cooperation agreements with other States and now transfers, free of charge, its land regularization methodology and the SICARF platform. In this regard, the Federal Government[48], through the Ministry of Agrarian Development and Family Farming (MDA), approved the technical and legal robustness, as well as the efficiency, of the SICARF platform. As a result, in April 2024, the Government of Pará signed a cooperation agreement transferring the system to the Federal Government for distribution to other States across the Federation.

Through this partnership, SICARF is already in use in six States: Pará, Amapá, Maranhão, Roraima, Tocantins, and Bahia. In addition, four other States have begun the process of establishing cooperation agreements – two from the Legal Amazon region, one from the Northeast, and one from the Southeast. It is estimated that by the end of 2024, ten States will have adopted this technological tool.

46 Consolidated figures as of September 30, 2024.

47 Project developed with financial support from The Nature Conservancy (TNC), using Financial Mechanism – Model 4, as detailed father along the text.

48 ITERPA has already signed a Cooperation Agreement with the Chico Mendes Institute for Biodiversity Conservation (ICMBio), which involves the incorporation and land registration of state-owned public lands that have been overlapped by federal protected areas. The goal is to promote land tenure regularization of these areas, as well as of the extractive communities located within these environmentally protected spaces. This initiative is part of the project previously mentioned, supported with financial assistance from The Nature Conservancy (TNC).

The Quilombola Roundtable: implementing new land governance models

The adoption of new procedures and technologies since 2019 has enabled the development of new planning strategies and methodologies. One example is the land tenure regularization efforts in territories of quilombola communities, where action planning and goal setting are deliberated within the so-called "Quilombola Roundtable" for state public lands.[49]

This open governance space is composed of multiple actors, including ITERPA, Malungu[50], the State Public Prosecutor's Office, the State Public Defender's Office, the State Attorney General's Office, quilombola associations, the Human Rights Law Clinic of the Federal University of Pará (UFPA), non-governmental organizations, and the Secretariat for Racial Equality and Human Rights. The outcomes of the Quilombola Roundtable are land titles, which in turn enable the development of new models for financing land tenure regularization.

A concrete example that can be mentioned is the financial support provided through the Eastern Amazon Fund (EAF)[51], with resources from the Gordon & Betty Moore Foundation, managed by FUNBIO. In light of the budgetary and operational constraints of the land agency and the known high volume of unmet demand[52], a private third-party service was contracted to carry out the precise georeferenced demarcation of lands claimed by quilombola communities.

This is an administrative procedure authorized by state legislation, in which, although the service is carried out by private entities, ITERPA oversees the process, including field inspections, to ensure compliance with the requirements for land tenure regularization.

The first project focused on the georeferenced surveying of three quilombola communities: Quilombo Vila São José, in the municipality of Moju; and Quilombo América and Quilombo Costeira, in the municipality of Oeiras do Pará. Together, these areas total 10,446.20 hectares and benefited 576 families, with the issuance of land titles scheduled for 2024.

Land tenure regularization financing models

Four financing models can be identified for structuring land tenure regularization efforts.

The first and most common model involves funding from public budgets. In this model, financial resources for regularization efforts originate from government allocations and are therefore subject to the fiscal limitations of the public

49 The Quilombola Roundtable was institutionalized through ITERPA Ordinance N° 484/2024.

50 Coordination of Associations of Quilombola Communities of Pará

51 State Decree N° 941, of August 3, 2020.

52 It is important to consider the backlog of demands that have not yet been formally submitted, as the interested parties face numerous economic and organizational challenges in accessing the public land tenure regularization service.

treasury. Moreover, there is strong competition for funds from other critical agendas such as health, education, and public security. These challenges often prevent the initiation of modernization processes within the public land regularization service or, for those that have already completed initial structuring phases, hinder the ability to scale results.

Figure 3: Model I – Public Budget

The second model involves the direct donation of a service or product to a public agency, in accordance with legal regulations[53]. In this case, the donor finances the support by contracting a supplier to provide a product or service of interest to the land agency, based on its specifications. Once the material is approved, it is delivered directly to the land agency at no cost.

Figure 4: Model II – Direct donation

In the third model, the funding may originate from either public[54] or private sources and is transferred into the public treasury of the political entity or public agency responsible for land tenure regularization. In this case, the public agency is directly responsible for contracting services and producing the outputs that support the regularization processes.

The difference between the first and third models lies in the source of funding: in the first model, the resources come from the public budget of the land agency responsible for executing the service, while in the third, the funding may come from various sources, such as transfers from the federal government; development banks like BNDES (Brazilian Development Bank), AFD (Agence Française de Développement), IDB (Inter-American Development Bank), and the World Bank; private banks; philanthropic funds; or parliamentary amendments.

53 State Decree N° 796, of May 29, 2020.

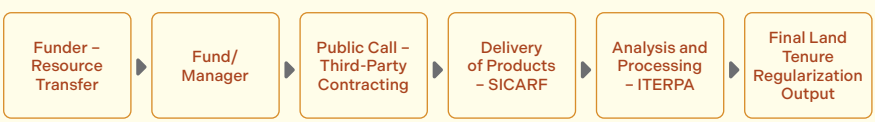
54 Development banks, such as BNDES, AFD, IDB, and the World Bank; private banks; philanthropic funds; and parliamentary amendments.

Figure 5: Model III – Resource transfer

The fourth model emerged from the updated land legislation of the State of Pará, which allows the materials required to support regularization processes to be produced by professionals contracted and paid by third parties. Under this model, the managing fund receives the financial resources and is responsible for contracting the services needed to generate the products that will support a land tenure regularization process, such as the "land tenure assessment", "socio-environmental registration", "georeferencing", and "agronomic inspection". The public agency, in turn, is responsible for overseeing the technical and legal compliance of these materials and for processing the land regularization request.[55]

This model has already been used by ITERPA in several initiatives that have supported its institutional development and the delivery of public land tenure regularization services – for example, the georeferencing of quilombola territories funded through a donation from a private institution to the EAF, managed by FUNBIO. As mentioned earlier, these resources were used to contract a specialized company to carry out the georeferencing operation and to prepare the technical documentation for the demarcation of quilombola territories. ITERPA is responsible for mobilizing the quilombola community regarding the operation, overseeing the technical and legal compliance of the work carried out by the company, and processing the land tenure regularization request for the collective quilombola territory.

Figure 6: Model IV – Managing Fund



It is important to emphasize that these models are not mutually exclusive. On the contrary, they offer multiple opportunities for collaboration to strengthen the structural actions needed to support land use planning and land tenure regularization in alignment with the climate agenda.

55 This model was applied in the strategic actions "Management of processes, personnel, and legislative updates" and "Land tenure accounting: data collection, qualification, organization, systematization, and standardization," using resources from AFD, managed by the Amazon Environmental Research Institute (IPAM).

Final considerations

In the context of the global transition toward a decarbonized economy, Brazil has the opportunity to position itself as a major force in the climate agenda. By leading this shift in production models, the country can become the world's largest provider of forest carbon credits and emerging environmental assets, such as biocredits and water resource credits.

To enable real impact, we must establish the appropriate legal framework that allows projects to take root in the territories – ensuring that promises of increased productivity, improved quality of life, and fair compensation reach those on the front lines: the people who produce, extract, and protect.

Achieving this requires advancing land tenure regularization. Without it, we remain confined to theoretical and speculative discussions, detached from the reality of the millions of often-invisible individuals whose work is essential to the success of the climate agenda.

While some potential supporters remain cautious – shaped by over 40 years of narratives framing the "land tenure issue" as unsolvable – this article has demonstrated the commitment of the Government of Pará, through ITERPA, to a new and modern model of land tenure regularization. Grounded in robust data, methodological and procedural efficiency, and already fully operational, this model ensures that land grabbers and deforesters are not beneficiaries. It represents a replicable evolution, delivering concrete, historically unprecedented results.

This structured approach to the land tenure issue establishes the necessary conditions for continued improvements and expanded functionalities, while ensuring that land regularization services are effectively delivered to those who meet the legal requirements.

It also affirms that the State has fulfilled its responsibility – delivering a modern, effective model of land tenure regularization that had long been anticipated and is now a reality, showing tangible progress and positive outcomes.

Now is the time to align efforts and secure support that reflects the significance society places on this issue. The success of the climate agenda in Brazil's rural areas – especially in the Amazon and for its people – depends on it.

REDD+ PROJECTS IN THE VOLUNTARY CARBON MARKET: LAND TENURE, OWNERSHIP, AND TRADITIONAL TERRITORIES IN BRAZIL

BY ANDRÉIA MACEDO BARRETO[56]

Introduction

This article seeks to examine land tenure and ownership rights in rural areas designated for Reducing Emissions from Deforestation and Forest Degradation (REDD/REDD+) projects, particularly in the context of protecting the territories of traditional peoples and communities[57] and addressing the unlawful appropriation of public lands within public forest areas.

REDD+ emerged under the United Nations Framework Convention on Climate Change (UNFCCC), which aims to stabilize greenhouse gas concentrations in the atmosphere. It was further developed through the Kyoto Protocol, a complementary agreement that established emission reduction targets for developed countries. REDD+ gained renewed significance in the Paris Agreement, which introduced incentives for reducing emissions from deforestation and forest degradation, and provided for voluntary cooperation in implementing mitigation and adaptation measures, as well as promoting sustainable actions that uphold environmental integrity.[58]

The Brazilian State ratified both the Paris Agreement and the United Nations Framework Convention on Climate Change (UNFCCC), adopted in 1992. As established in the Paris Agreement, all countries have climate targets. Countries in the Global North are expected to take the lead by adopting absolute economy-wide emission reduction targets, while countries in the Global South are to receive support in achieving their goals.[59]

The issue is that REDD/REDD+ projects often target forests located within the territories of traditional communities, representing a facet of colonialism and

---

56 Public Defender for the State of Pará, PhD in Law from the Federal University of Pará (Brazil), with a postdoctoral degree in Democracy and Human Rights from the Ius Conimbrigae Program at the University of Coimbra (Portugal). This article stems from reflections developed as part of the project/practice titled "Combating Carbon Grabbing", carried out by the Public Defender's Office of the State of Pará. The initiative was recognized as an outstanding practice in the field of environment and sustainability in the 21st edition of the Innovare Award.

57 BRAZIL. Federal Decree N° 6,040 of February 7, 2007. Establishes the National Policy for the Sustainable Development of Traditional Peoples and Communities. Available at: **https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2007/decreto/d6040.htm**. Accessed on: Feb. 24, 2024.

58 Art. 6. BRAZIL. Decree N° 9,073 of June 5, 2017. Enacts the Paris Agreement under the United Nations Framework Convention on Climate Change, adopted in Paris on December 12, 2015, and signed in New York on April 22, 2016. Available at: **https://www.planalto.gov.br/ccivil_03/_ato2015-2018/2017/decreto/d9073.htm**. Accessed on: Feb. 24, 2024.

59 Articles 4.4 and 4.5, and Decree N° 9,073 of June 5, 2017 – Enacts the Paris Agreement under the United Nations Framework Convention on Climate Change, adopted in Paris on December 12, 2015, and signed in New York on April 22, 2016.

racism[60] – particularly because companies and countries from the Global North are using this mechanism to deflect attention and maintain the use of fossil fuels such as oil, coal, and gas. Major corporations continue these extractive practices while still generating emissions.[61]

REDD+ also interferes with the organizational structures of forest-dependent peoples and communities, affecting their culture and ancestral knowledge related to their lands and ways of life. It can lead to internal conflicts, particularly due to the introduction of promises of financial gain, the co-optation of community leaders, and opposing views regarding the projects. Furthermore, it "turns territories into financial assets and restricts the access of Indigenous and traditional populations to their own spaces, deepening historical inequalities and undermining the autonomy of the peoples who contribute most to environmental conservation."[62]

As a result, REDD has been associated with negative outcomes in countries such as Colombia,[63] Indonesia,[64] and Mozambique.[65] Its introduction in Brazil has also been widely criticized[66], with the mechanism often referred to as a form of "forest carbon grabbing"[67] – a concept that will be examined in greater detail in this article.

The ongoing issue of public land grabbing in Brazil remains unresolved and is compounded by structural problems such as land concentration, agrarian conflicts, violence, and fraudulent land titling and registration. These challenges have significant implications for the implementation of REDD+ projects, particularly in territories occupied by traditional peoples and communities.

It is within this context that the legal and land tenure dimensions of REDD+ projects in the voluntary carbon market are addressed. The objective is not to

---

60 LOHMANN, Jarry. Ending colonialism means ending REDD+. In: *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2002.

61 KILL, Jutta. REDD: Not Just a Failure. In: *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022. p. 14.

62 SOAVE, Fernando Merloto; SILVA, Thalita Verônica Gonçalve e. Créditos de carbono e Redd+: solução ou problema? Uma análise crítica de sua efetividade climática. In: Escola da Defensoria Pública do Estado de São Paulo. *Cadernos da Defensoria Pública do Estado de São Paulo São Paulo*, v. 10, nº 44, pp. 1-505, abr/2025. p. 337.

63 GILBERTSON, Tamra L. Blood Coal for Blood Carbon in Colombia: Expansion of Carbon Taxes with REDD+ Underscores the Failure of Carbon Pricing. In: *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022. p. 53

64 PRAWIRANEGARA, Izzudin. The Katingan REDD+ Project in Indonesia: The Commodification of Nature, Labour and Communities' Reproduction. In: *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022. p. 62.

65 MONJANE, Boaventura; BRUNA, Natasha; SAMUEL, Euridse. The Legacy of the Community Carbon Project in Nhambita, Mozambique: Nostalgia, Disillusionment and Indignation. In: *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022. p. 73.

66 *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022.

67 VIEIRA, Ilma. A ameaça da "grilagem" do Carbono Florestal na Amazônia. Available at: **https://repam.org.br/ameaca-grilagem-carbono-florestal-amazonia/**. Accessed on: Jan. 7, 2024.

analyze the technical mechanisms behind the establishment of such projects, but rather to offer a legal perspective on the rural properties where REDD+ initiatives are implemented – focusing on land use and its relevance to the climate change debate.

This approach is particularly important given the occurrence of public land grabbing and the incorporation of traditional territories into the carbon credit market. The introduction of REDD+ into these territories poses complex challenges for traditional peoples and communities, for the State, and for legal practitioners, due to its far-reaching implications for local ways of life. As such, the issue deserves greater attention – especially considering its limited treatment within the legal field.

This analysis is based on a case study of four REDD+ projects implemented across five State Agro-Extractivist Settlement Projects (PEAEX, the acronym in Portuguese) located in the municipality of Portel, in the state of Pará, within the Brazilian Amazon. The research also included a review of official documents, legislation, and judicial records.

Using a multiple case study methodology, the locations of the REDD+ projects were identified based on the geographic boundaries submitted by project proponents to an international certifying body headquartered in the United States. Additional data were drawn from land and environmental agencies of the state of Pará, including the Environmental Rural Registry System (SICAR) and technical documents issued by the Pará Land Institute (ITERPA), which provided the official boundaries of the state-managed settlement projects.

The land title records cited in the REDD+ projects were also examined. Using the geographic coordinates associated with these records, maps and spatial analyses were produced to identify overlaps with traditional territories, protected areas, Indigenous lands, and state settlement projects. Additionally, judicial proceedings filed in both state and federal courts in Pará were reviewed, specifically those challenging the legality of the land titles linked to the REDD+ projects. As part of this research, searches were conducted for individuals involved in the projects using the Electronic Judicial Process (PJe) system of the Federal Supreme Court, the Regional Federal Court of the 1st Region – Pará Section, and the Court of Justice of the State of Pará.

Drawing on this methodology and analysis, the study is structured into four parts. The first examines REDD+ project cases through both administrative and judicial lenses, focusing on proceedings led by the Public Defender's Office of the State of Pará. The second explores land tenure, property rights, and the rights of traditional peoples and communities to their territories. The third addresses the issue of public land grabbing, with a detailed review of the land and environmental documents used in the case study projects. The final section presents concluding reflections, including a legal analysis of the land tenure provisions introduced by Law Nº 15,042 of December 11, 2024, and their implications for the voluntary carbon credit market. This legislation establishes the Brazilian Emissions Trading System (SBCE, the acronym in Portuguese) and provides the legal framework for the creation of a regulated carbon market in Brazil.

REDD+ Projects in State Agro-Extractivist Settlements in Portel, Pará

PART 1 — Initial findings preceding judicial action

In late 2022, the Public Defender's Office received a formal complaint from residents of the State Agro-Extractivist Settlement Project (PEAEX) Joana Peres II and from the Portel Rural Workers' Union (STTR). They reported the unauthorized presence of individuals within the settlement areas, allegedly to negotiate legal agreements for carbon credit projects. Initial investigations uncovered a number of contracts, prompting follow-up visits and interviews with community members. The findings were further supported by the study "Neocolonialism in the Amazon: REDD Projects in Portel, Brazil", published by the World Rainforest Movement.[68]

In response to these reports, in February 2023, the Public Defender's Office launched a Preparatory Administrative Procedure for Collective Protection (PAPATC, the acronym in Portuguese) to investigate alleged violations of the territorial rights of agro-extractivist families from the State Agro-Extractivist Settlement Projects Joana Peres II Dorothy Stang, Joana Peres II Pacajá, Deus é Fiel, Jacaré Puru, and Rio Piarim. The procedure also aimed to assess potential civil liability and the legal validity of contracts arising from a REDD+ project implemented on rural lands designated for traditional communities. These communities, through their representative associations, were neither consulted nor involved in the development of the project or the legal agreements that followed, and no formal state intervention was observed.

These collective settlements are located in the municipality of Portel, in the state of Pará, approximately 278 kilometers from the capital, Belém. Portel spans a total area of 25,384.96 km² and is home to a population of 62,503[69]. It lies within the Marajó mesoregion, a vast area composed of numerous islands and recognized as the world's largest river-sea archipelago. The region is notable for its ecological richness, encompassing native grasslands, flooded plains, and dense tropical forests.[70]

The rural area of Portel includes a variety of designated territories, such as quilombola lands (e.g., São Tomé Tauaçu), protected areas (such as the Caxiuanã National Forest), federal settlement projects (including the Agro-Extractivist Settlement Ilha Grande do Pacajaí and the Terra Paz Settlement), and seven State Agro-Extractivist Settlement Projects. Among the state-established settlements in Portel, five were found to be affected by REDD+ projects Nº 977, 981, 2252, and 2620. These include PEAX Joana Peres Dorothy Stang, Joana Peres Rio Pacajá, Deus é Fiel, Rio Piarim, and Jacaré Puru (see Table 1). These projects were implemented without the participation or authorization of the State or the communities involved in the legal agreements.

---

68 *World Rainforest Movement. 15 Years of REDD: A Mechanism Rotten at the Core*. Montevideo: WRM, 2022.

69 INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). *Cidades e Estados*. 2023. Available at: **https://www.ibge.gov.br/cidades-e-estados/pa/portel.html**. Accessed on: Dec. 30, 2023.

70 ALVES, Fábio (Org.). *A Função Socioambiental do Patrimônio da União na Amazônia*. Brasília: Ipea, 2016. p. 107.

Table 1: REDD+ Projects Affecting PEAX Areas in Portel

MUNICIPALITY	ID	PROJECT NAME	PROPONENT	PEAX AFFECTED
Portel	977	RMDLT Portel-Pará REDD Project	RMDLT Property Group Ltda.	Joana Peres II Dorothy Stang and Deus é Fiel
	981	REDD Pacajaí Project or ADPML	Avoided Deforestation Project (Manaus) Limited	Joana Peres II Dorothy Stang and Joana Peres II Rio Pacajá
	2252	Rio Anapu-Pacajá REDD	Brazil Afgor LLC.	Deus é Fiel, Joana Peres II Dorothy Stang, Joana Peres II Rio Pacajá, Rio Piarim and Jacaré Puru
	2620	Ribeirinho REDD+	Association of Riverside Dwellers and Residents and Portel Rural Workers' Union	Deus é Fiel, Joana Peres II Dorothy Stang, Joana Peres II Rio Pacajá, Rio Piarim and Jacaré Puru

Source: Prepared by the author (2024)

The first State Agro-Extractivist Settlement (PAEX) where REDD+ projects were implemented is Joana Peres II Dorothy Stang, covering 97,654.9540 hectares and designated for 457 agro-extractivist families. Land tenure was formally granted through a Concession Contract for the Right of Real Use (CDRU, the acronym in Portuguese) to the *Associação Comunitária dos Trabalhadores Rurais Agroextrativistas do Médio Rio Anapu – Dorothy Stang*. Residents engage in agriculture, fishing, and small-scale livestock farming.

The second settlement, Joana Peres II Rio Pacajá, spans 113,016.9986 hectares and is covered by a CDRU issued to the *Associação dos Moradores Rurais Agroextrativistas da Gleba Joana Peres II – Rio Pacajá* (AMAGJOPP). It benefits 694 agro-extractivists involved in similar livelihood activities, including agriculture, fishing, and the raising of small animals.

The third settlement, Deus é Fiel, covers 34,573.6269 hectares. In 2023, a CDRU was granted to the *Associação dos Trabalhadores Agroextrativistas do Alto Pacajá* (ATAAP), benefiting 58 families engaged in agro-extractivist practices.

The fourth, Rio Piarim, has an area of 18,040.0098 hectares and is held under a CDRU granted to the *Associação dos Moradores do Rio Piarim para o Extrativismo* (ASSIMPEX). The settlement supports 51 agro-extractivists who practice family farming and sustainable forest resource use, as defined in their Use Plan.

The fifth and final settlement, Jacaré Puru, spans 71,034.3520 hectares. Land tenure was granted via a CDRU to the *Associação dos Moradores Comunitários Agroextrativistas da Gleba Jacaré Puru* (ACAMP), benefiting 224 agro-extractivist families. They engage in non-timber forest product activities, subsistence agriculture, and small-scale livestock farming (such as raising pigs and chickens), in accordance with their Use Plan, which also includes a forest management component.

In all five settlements, the implementation of REDD+ projects occurred without the consent or involvement of the State of Pará. During the land regularization process, the Pará Land Institute (ITERPA) found no evidence of improvements or land possession by third parties – whether project proponents, implementing entities, or alleged landowners identified in the projects – despite the existence of entries in the Land Information System (SIGEF), managed by the Brazilian Institute for Colonization and Agrarian Reform (INCRA).

In addition to reviewing the regularization procedures, the REDD+ projects were analyzed to identify rural properties and land title registrations claimed as private property. The use of individual Rural Environmental Registry (CAR) entries was also observed. Based on this information, further inquiries were conducted at the Land Registry Offices of Portel and Breves, where full land title certificates for the properties listed in the projects were obtained.

The land title records were analyzed and compiled into a report structured in four parts. The first part provides a summary of 50 identified land titles, detailing the area, acquisition title, registered owner, registration date at the Portel Land Registry Office, any prior registration at the Breves Registry Office, related judicial proceedings, and the status of the titles – 16 were found to be canceled, 22 blocked, and 12 remained active without restrictions. The second part groups the titles according to the REDD+ projects in which they were referenced (13 titles were not linked to any project). Each title was geolocated using the coordinates provided in the property registry. Although the records referenced demarcation, no formal demarcation process had been carried out, and technical information on total area was absent. As a result, descriptive land surveys could not be produced, and only the point locations noted in the registries were used. The third part presents a map showing all land titles associated with each REDD+ project, enabling the identification of overlaps with collective settlement areas. Finally, the fourth section analyzes data from ITERPA, based on the findings of the previous sections.

The report was submitted by the Public Defender's Office of the State of Pará to the Portel Land Registry Office, which subsequently carried out the administrative cancellation of 29 land titles. These titles had already been subject to judicial decisions and rulings by the Court of Justice of the State of Pará, as they had been irregularly registered in November 1988 – without complying with legal formalities and without the proper detachment of public lands. As a result, out of the 50 titles analyzed, 45 are now officially canceled. The remaining 5 are the subject of a Request for Action submitted by the Public Defender's Office to the Internal Affairs Division of the Court of Justice, seeking their suspension and cancellation, along with an additional 600 titles registered in the Breves Land Registry, all of which show indications of registry irregularities.

In addition to analyzing the land title records, individual Rural Environmental Registries (CARs) were also reviewed. According to information provided by the State of Pará, none of the REDD+ projects had been authorized by state authorities. The state further reported the cancellation of CAR registrations related to settlement areas, as they had been issued in violation of current environmental legislation.

Based on the gathered documentation – including materials submitted by project proponents and alleged landowners during the administrative adversarial process – one of the companies was excluded from the proceedings, having demonstrated no involvement in the development of the projects. However, the Municipality

of Portel was found to have played a role, having issued three public utility decrees (Nos. 2871/2022, 2872/2022, and 2873/2022) in favor of the project proponents and implementers. These decrees were based on Municipal Law Nº 918/2022, which establishes the local policy on climate change mitigation. The constitutionality of this law is currently being challenged by the Public Defender's Office of the State of Pará.

The decrees authorized the implementation of REDD+ projects within state agro-extractivist settlements – on lands under the domain of the State of Pará and in the possession of traditional communities – granting companies the authority to carry out construction activities within these territories without state consent. They also conferred powers allowing the beneficiary companies to requisition assets from individuals and legal entities, including members of the traditional communities residing in the PEAX areas.

Based on the documentation and legal analysis, the Public Defender's Office of the State of Pará concluded that the projects were unlawful and violated the territorial rights of traditional communities. This led to the filing of four civil lawsuits – one for each REDD+ project.

PART 2 — Lawsuits challenging the legality of the projects

In 2023, the Public Defender's Office of the State of Pará filed civil lawsuits seeking to protect the traditional territories of communities located in five state-recognized agro-extractive settlements. The claims are based on the premise that forests are environmental assets inherently linked to the land, making their ownership a responsibility of the State. Their possession and use, however, are exercised by traditional communities – who were not involved in the legal arrangements underlying the REDD+ projects.

The lawsuits allege the occurrence of land grabbing involving public lands. Although the proponents of the REDD+ projects claim the areas are privately owned, investigations revealed that they are, in fact, public lands designated for collective settlements. The corresponding land titles were either canceled or blocked, and there is no evidence of improvements or legitimate possession by the individuals or companies involved in the projects. The lawsuits also argue that the land titles used in these initiatives are legally flawed from the outset and should have been considered null since November 1988 – well before the REDD+ projects were launched in 2008, 2009, 2016, and 2017.

The lawsuits also contend that none of the four projects received authorization from the State or from the representative associations of the settlements, which are the rightful landholders under the Right of Real Use Concession Agreement granted by ITERPA. The communities were excluded from benefit-sharing arrangements and were never consulted in advance. No prior environmental assessment was conducted, and the projects pose documented socio-environmental risks, including threats to biodiversity and to traditional knowledge associated with it. Despite the lack of consultation, State approval, or environmental studies, project proponents and their agents entered the settlements to conduct monitoring activities, forest inventories, and even register families without consent.

The lawsuits further claim that the Rural Environmental Registries (CAR) were illegally prepared and improperly used as proof of land ownership, even though

CAR is merely an environmental registry and does not establish legal possession or property rights. The cases highlight the falsification of public records – including CAR entries, land registries, and representations made to local communities and third parties involved in carbon credit transactions. In one of the projects, a carbon credit sales contract was identified with a German company, reinforcing concerns over the legitimacy of the entire operation.

The project descriptions also portrayed the Rural Environmental Registry (CAR) as a social benefit aimed at advancing land regularization for traditional communities. This justification was provided by the project proponents, who also cited the distribution of cooking stoves as a social contribution – an initiative challenged in the lawsuits for introducing goods misaligned with the communities' traditional ways of life.

Accordingly, the lawsuits request the annulment of the REDD+ projects and all related legal transactions, as well as a court order prohibiting the project proponents and their agents from entering the settlements to carry out project activities. In three of the cases, the lawsuits also seek the nullification of public utility decrees issued by the mayor of Portel, based on a municipal law deemed unconstitutional. Furthermore, the actions demand compensation for collective moral damages in the amount of twenty million reais – five million per case – to be directed to a fund for environmental protection and land governance projects benefiting the traditional communities in the five state agro-extractive settlements.

PART 3 — Rights to land tenure, property, and territories of traditional communities in Brazil

The REDD+ projects in Portel bring to light a critical discussion on land tenure in the context of REDD+ initiatives in Brazil. This section seeks to examine whether it is permissible to disregard the property, possession, and territorial rights of traditional peoples and communities in areas where forests are the focus of REDD+ projects.

Respect for property and land tenure rights is a prerequisite for the legality and validity of REDD+ projects and any resulting legal agreements. The use of forests and entitlement to forest carbon credits cannot be dissociated from land ownership and possession rights.

REDD+ projects generate legal obligations tied to the land where the forests are located. These are *propter rem* obligations – real obligations attached to the property – where the holder of a real right over the land becomes responsible for the corresponding duty. As such, the obligation follows the property, regardless of ownership, and may be enforced against the land itself. Therefore, legal transactions arising from REDD+ projects must be formally recorded in the property's title registry to ensure public notice and continuity of obligations in the event of a change in ownership.[71] [72]

---

71 BRAZIL. Law N° 6,015 of December 31, 1973. Provides for public registries and other provisions. Available at: **https://www.planalto.gov.br/ccivil_03/leis/l6015compilada.htm**. Accessed on: February 24, 2024. Article 165, item 45.

72 BRAZIL. Law N° 14,119 of January 13, 2021. Establishes the National Policy for Payment for Envi-

Furthermore, it is essential to acknowledge that REDD+ projects involve activities that directly intervene in the areas where they are implemented, such as deforestation control, environmental monitoring, and forest inventories. These interventions are inherent to the REDD+ mechanism, which aims to support governance and finance actions to conserve carbon stocks and reduce greenhouse gas emissions resulting from deforestation and forest degradation. Therefore, land tenure[73] must also be duly considered.

Legal agreements must be executed with both landowners and landholders, in compliance with the formal requirements established by law.[74] This is crucial, as forest carbon credits are generated from obligations and commitments assumed through voluntary legal transactions involving the landowner. This interpretation was further clarified by the enactment of Law Nº 15,042/2024, which established that the ownership of carbon credits derives from land ownership.

The development of REDD+ projects must recognize the diversity of land tenure[75] and ownership[76] systems in Brazil, going beyond the notion of individual private property. This plurality is the result of the country's historical processes of territorial occupation, which have shaped a socially and structurally diverse landscape[77]. It includes Indigenous territories, quilombola lands, and territories of traditional peoples and communities, all marked by unique social structures grounded in cultural, ancestral, and ethnic relationships.

In the case of territories occupied by traditional peoples and communities – the focus of this analysis – collective or communal land ownership entails the recognition of territorial rights[78], with or without formal land title, including the right to use and benefit from natural resources. When land ownership remains with the State, the possession, use, and usufruct are exercised by the community members, as occurs in collective agro-extractive settlement projects. These settlements were created to secure land tenure, ensure legal certainty over the territory, and promote socio-environmental protection. Thus, the fact that the land is formally owned by the State does not negate or override the preexisting territorial rights of these communities.

---

ronmental Services and provides other provisions. Available at: **https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2021/lei/l14119.htm**. Accessed on: January 7, 2024. Article 22.

73 MATTOS NETO, Antonio José de. *Posse agrária e suas implicações jurídicas no Brasil*. Belém: CEJUP, 1988.

74 BRAZIL. Law Nº 10,406 of January 10, 2002. Establishes the Civil Code. Available at: **https://www.planalto.gov.br/ccivil_03/leis/2002/l10406compilada.htm**. Accessed on: January 7, 2024. Article 104.

75 GROSSI, Paolo. *La propiedad y las propiedades: un análisis histórico*. Translated by Ángel M. López y López. Madrid: Editorial Civitas, 1992.

76 BENATTI, José Heder. *Posse agroecológica & manejo florestal: à luz da Lei 9.985/00*. Curitiba: Juruá, 2008.

77 LITTLE, Paul E. Territórios sociais e povos tradicionais no Brasil: por uma antropologia da territorialidade. *Anuário Antropológico*, vol. 28, nº 1, pp. 251–290, 2018. Available at: **https://periodicos.unb.br/index.php/anuarioantropologico/article/view/6871**. Accessed on: February 24, 2024.

78 BARRETO, Andréia Macedo. *Território de águas na Amazônia: ribeirinhos e o direito à propriedade coletiva da terra*. Curitiba: Juruá, 2019. p. 40.

In these contexts, it is also necessary to consider forest concession areas and the carbon market. Law Nº 11,284/2006, as amended by Law Nº 14,590/2023, regulates forest concessions through a public bidding process and requires a formal administrative act to authorize the transfer of carbon credit ownership from the granting authority (the State) to the concessionaire. It also grants the right to commercialize certificates representing carbon credits and related environmental services, provided that measures are taken to safeguard the land tenure rights of areas occupied or used by local communities.[79]

To that end, prior to granting a concession, it is essential to ensure "[...] respect for the rights of the population, particularly local communities, to access public forests and benefit from their use and conservation [...]"[80] as well as to uphold the preferential rights of traditional agro-extractive communities occupying these areas[81]. This includes identifying community lands in advance, so that they may be designated for the creation of extractive reserves, sustainable development reserves, forest settlement projects, agro-extractive settlements, or similar arrangements[82] – such as the PAEX model.

The safeguards established for REDD+ under the United Nations Framework Convention on Climate Change – commonly known as the Cancun Safeguards[83] – must also be implemented to ensure the protection of the rights of Indigenous peoples and traditional communities. These safeguards require respect for the knowledge and rights of Indigenous peoples and local communities, in line with international obligations, national legislation, and the United Nations Declaration on the Rights of Indigenous Peoples, as well as the full and effective participation of stakeholders, particularly Indigenous peoples and local communities.

National legislation requires that the rights of traditional communities be upheld, with consideration for both their collective and specific needs, and in compliance with the precautionary principle, as established by Law Nº 12,187/2009, which sets forth the National Policy on Climate Change.[84]

---

79 BRAZIL. Law N° 11,284 of March 2, 2006. Provides for the management of public forests for sustainable production; establishes the Brazilian Forest Service (SFB) within the Ministry of the Environment; creates the National Forest Development Fund (FNDF); amends Laws N° 10,683 of May 28, 2003, N° 5,868 of December 12, 1972, N° 9,605 of February 12, 1998, N°. 4,771 of September 15, 1965, N° 6,938 of August 31, 1981, and N° 6,015 of December 31, 1973; and provides other provisions. Available at: **https://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2006/Lei/L11284.htm**. Accessed on: February 24, 2024. Article 16, § 2.

80 Ibid., Article 2, item III.

81 Ibid., Article 4, item II.

82 Ibid., Article 6.

83 UNITED NATIONS. Framework Convention on Climate Change. Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Distr.: General 15 March 2011. Available at: **https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/4.salvaguardas-REDD/Salvaguardas-Anexo-I-Decisao1CP16.pdf**. Accessed on: February 24, 2024.

84 BRAZIL. Law N° 12,187 of December 29, 2009. Establishes the National Policy on Climate Change (PNMC) and provides other provisions. Available at: **https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/l12187.htm**. Accessed on: February 24, 2024. Articles 3, item IV, and 6, item XIII.

This principle extends to biodiversity and the traditional knowledge of Indigenous peoples, quilombola communities, and other traditional populations, who play a key role in the sustainable conservation of biodiversity. Accordingly, any activity involving access to traditional knowledge associated with biodiversity must be carried out with the free, prior, and informed consent of these peoples and communities.[85] The right to consultation is also affirmed in Law Nº 14,119/2021, which establishes the National Policy for Payment for Environmental Services (Article 8, item IV), and in Law Nº 15,042/2024, which establishes the regulated carbon credit market.[86]

The right to free, prior, and informed consultation is a binding international standard established by ILO Convention Nº 169, incorporated into Brazilian law through Decree Nº 5,051/2004 and amended by Decree Nº 10,088/2019. However, it is not enough for legislation to merely acknowledge this right; it must be implemented as a formal public policy, akin to health or education. This requires the State to establish a dedicated institutional framework, with a specific agency and qualified personnel, to carry out consultations whenever Indigenous peoples and traditional communities choose to engage in the process.

Moreover, it is imperative that the State recognize the right of veto – namely, the decision of traditional communities to refuse the implementation of REDD+ projects within their territories. This right is particularly relevant given the recurring judicial actions involving violations of the duty to consult, which not only contravene national and international norms but also infringe upon the human right to territory, as guaranteed by the American Convention on Human Rights and affirmed by the jurisprudence of the Inter-American Court of Human Rights.[87]

Therefore, in traditional territories under common use – such as state-level agro-extractive settlement projects – activities that involve environmental and social interventions, including REDD+ projects, must comply with the norms established in Brazilian law. These include the rights to land ownership and possession, free, prior, and informed consultation, fair and equitable benefit-sharing, and respect for customary norms, such as community-based land-use plans.

PART 4 — Land grabbing on public lands: the case of REDD+ projects in Portel, Pará

Land grabbing on public lands

Upholding the territorial rights of traditional communities also requires confronting the practice of land grabbing on public lands. This phenomenon has

85 BRAZIL. Decree N° 4,339 of August 22, 2002. Establishes principles and guidelines for the implementation of the National Biodiversity Policy. Available at: **https://www.planalto.gov.br/ccivil_03/decreto/2002/d4339.htm**. Accessed on: January 7, 2024. Article 2, items XII and XIII.

86 _____. Law N° 15,042 of December 11, 2024. Establishes the Brazilian Greenhouse Gas Emissions Trading System (SBCE) and amends Laws N° 12,187 of December 29, 2009, N° 12,651 of May 25, 2012 (Forest Code), N° 6,385 of December 7, 1976 (Securities and Exchange Commission Law), and N° 6,015 of December 31, 1973 (Public Registry Law). Available at: **https://www.planalto.gov.br/ccivil_03/_ato2023-2026/2024/lei/L15042.htm**. Accessed on: April 20, 2025. Article 47, I, subparagraph "a".

87 Barreto, 2019.

evolved into various forms, increasingly facilitated by technological and digital tools – including what has come to be known as "carbon land grabbing".[88]

Land grabbing (*grilagem*, in Portuguese) refers to the illegal appropriation of public lands, whether through coercive, violent, or deceptive means. It often involves the use of forged documents to claim ownership of public property[89] and is commonly associated with a range of other unlawful practices, including document fraud, extortion, and corruption.[90]

Effectively addressing land grabbing on public lands requires recognizing several key premises. First, under Brazilian law, land can only be considered private property if it has been legally separated from the public domain. This stems from the country's historical context, in which all land originally belonged to the Portuguese Crown and, later, to the Brazilian State. Private ownership emerged only through formal transfers of title by the State to individuals.

Accordingly, for any property claim to be considered legitimate, it must be based on an original, express authorization from the public authority. If this authorization does not exist – or if the continuity of the ownership chain linking the original title to the current land registration has been broken or compromised – the land remains in the public domain. In such cases, the State retains the authority to allocate or manage the land as it sees fit.[91]

Furthermore, prior to the enactment of the 1988 Federal Constitution, private land ownership in Brazil could arise through two distinct pathways:

- by act of the State – through grants (*sesmarias*, in Portuguese), concessions, transfers, or sales; or
- by private initiative, through the occupation or possession of land supported by a title. However, the current Constitution prohibits the acquisition of public lands solely through private possession – such as adverse possession (*usucapião*, in Portuguese) of public lands. Under the new constitutional framework, recognition of property rights must be based on a formal act of the State, except in specific cases expressly provided for, such as the recognition of quilombola territories.[92]

---

88 VIEIRA, Ilma. A ameaça da "grilagem" do carbono florestal na Amazônia. Available at: **https://repam.org.br/ameaca-grilagem-carbono-florestal-amazonia/**. Accessed on: January 7, 2024.

89 BARRETO, Andréia Macedo. Apropriação ilícita de terras públicas na Amazônia: o caso da Gleba Ituna, no Estado do Pará. In: *Amazônia Ciência & Desenvolvimento*, Belém, vol. 3, no. 5, Jul./Dec. 2007, pp. 7–23.

90 BENATTI, José Heder; SANTOS, Roberto Araújo; GAMA, Antônia Socorro Pena de. *A grilagem de terras públicas na Amazônia brasileira*. Brasília, DF: IPAM; MMA, 2006. (Série Estudos, nº 8), p. 18.

91 TRECCANI, Girolamo Domenico. *Violência e Grilagem*. Belém: UFPA/ITERPA, 2001. p. 197.

92 BARRETO, Andréia Macedo. A Constituição Federal de 1988 e a posse de terras públicas rurais. In: *Revista Direito e Liberdade* – ESMARN, vol. 14, no. 1, pp. 39–59, Jan./June 2012. Available at: **https://bdjur.stj.jus.br/jspui/bitstream/2011/51904/constituicao_federal_posse_barreto.pdf**. Accessed on: January 14, 2024. p. 47.

With respect to the identification of public lands, the legal framework provides for a land classification process, intended to distinguish public lands from private holdings. This process may be conducted administratively or judicially and must be initiated by the State, which, like any private party, is legally obligated to register and record the property in the appropriate land registry office.

Therefore, when someone claims ownership of a rural property, it is essential to verify whether the land was lawfully separated from the public domain, in accordance with the various legal regimes through which such transfers to private individuals may have occurred. This includes confirming compliance with the legal requirement to register the property with the official land registry, as established by Law Nº 6,015/1973, which governs public records. Even when a title has been legitimately issued by the State, its exact location must be verified, as many land titles were granted in different historical periods and often based on natural landmarks – such as rivers and streams – without precise geographic coordinates. It is important to note that georeferencing only became mandatory in 2001, with the enactment of Law Nº 10,267 of August 28, 2001.

In addition, the concession of public lands in Brazil is subject to constitutional requirements. One of these is the mandatory prior authorization of the National Congress for any grant of public land – whether to individuals or legal entities – when the area exceeds 2,500 hectares.[93]

Similarly, certain state constitutions establish specific formalities for the concession of public lands. The Constitution of the State of Pará, for instance, stipulates that the State may only grant lands of up to 2,500 hectares with the approval of an absolute majority of the Legislative Assembly.[94] For areas up to 1,500 hectares, prior authorization from the state land agency is required. For areas exceeding 1,500 hectares, both the approval of the land agency and the Legislative Assembly are necessary.[95]

In light of these constitutional provisions, in 2009 the National Council of Justice (CNJ), through a decision issued by the National Inspector of Justice, Minister Gilson Dipp, in Administrative Request Nº 0001943-67.2009.200.0000, ordered the administrative cancellation of land registrations and property titles deemed irregular in the State of Pará. The decision sought to enforce constitutional limits and curb illegal practices, including the land grabbing of public lands.

This type of administrative cancellation is provided for under Law Nº 6,739/1979, which authorizes the General Justice Inspector, upon request by a public legal entity, to declare null and cancel property registrations and deeds associated with titles that are void *ab initio* or executed in violation of Article 221 of Law Nº 6,015/1973 (BRAZIL, 1979, Art. 1). The latter law establishes the principles of continuity, availability, and legality in property registration (BRAZIL, 1973, Articles 195, 236, and 237). The constitutionality of Law Nº 6,739/1979 was upheld by the

93 BRAZIL. Constitution (1988). Constitution of the Federative Republic of Brazil. Available at: **https://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm**. Accessed on: February 24, 2024. Article 188, § 1.

94 PARÁ. Constitution (1989). Constitution of the State of Pará. Available at: **https://www.alepa.pa.gov.br/downloads**. Accessed on: January 7, 2024. Article 242, §1; Ibid., Article 241.

95 Ibid., art. 241.

Full Bench of the Federal Supreme Court in Representation Nº 1,070/DF, published on May 27, 1983, with Minister Moreira Alves as the Reporting Justice.

Building on the understanding established in this Federal Supreme Court (STF) ruling, the Constitutional Court's case law – including in single-justice decisions – has recognized the legitimacy of administrative cancellation. One such case was Writ of Mandamus Nº 29,375/PA, filed against an act of the National Council of Justice by an individual involved in the Portel REDD+ projects.

In this proceeding, a preliminary injunction was initially granted and recorded in 18 property registrations associated with Projects 977, 981, and 2252, temporarily suspending the administrative cancellation ordered by the General Inspectorate of the State Court of Justice, although the registrations remained blocked. However, the writ was ultimately denied on August 29, 2016, by Justice Rosa Weber. This decision was not entered into the property records until 2023, after the Public Defender's Office of the State of Pará submitted its report and the STF ruling to the Sole Registry Office of Portel, which then recorded the decision in all 18 registrations, finalizing their cancellation in accordance with rulings issued by the Pará State Court of Justice.

In the state of Pará, the State Court of Justice issued Provision Nº 013/2006-CJCI, which ordered the blocking of all rural property registrations in land registries of interior judicial districts that exceeded constitutional landholding limits. Specifically, this applied to: properties registered between July 16, 1934, and November 8, 1964, with areas larger than 10,000 hectares; those registered between November 9, 1964, and October 4, 1988, exceeding 3,000 hectares; and those registered from October 5, 1988, onward, exceeding 2,500 hectares – regardless of the date indicated on the alleged title.

The provision also directed registry officials to refrain from performing any acts on such registrations, extending its effects to any derived or subdivided titles. In the case of Projects 977, 981, and 2252, the property registrations identified in the Portel Registry Office were created after the enactment of the 1988 Federal Constitution, and 45 of them were found to contravene the provisions of both Provision Nº 013/2006-CJCI and Provision Nº 002/2010-CJCI.

Provision Nº 002/2010-CJCI, issued by the Inspectorate of the State Court of Justice of Pará, directed all land registries in the interior of the state to immediately comply with the decision of the National Justice Inspector by canceling all property registrations that had been previously blocked under Provision Nº 013/2006-CJCI. The provision also required the necessary annotations to be made on all subsequent acts and transfers, and the respective registrations to be formally closed.

Accordingly, Brazilian law establishes a set of legal requirements that must be fulfilled for rural land to be considered private property. In the case of the registrations used in Projects 977, 981, and 2252, it is understood that these legal requirements were not observed.

Property registrations associated with Project 977

The RMDLT Portel-Pará REDD Project, also referred to as the Rio Mandaquari REDD+ Project (Project 977), was launched in 2009 with a planned crediting period of forty years. It was certified under the Verified Carbon Standard by Verra, a certification body based in the United States, for the sale of carbon credits on the international market.

The project claims to cover an area of 140,000 hectares, distributed across 20 rural properties. However, the project documentation lists only 16 property registrations, one of which was later subdivided into two separate parcels. Of the 16 registrations used in the project, 15 have been canceled. The remaining one has not yet been blocked or canceled and is currently the subject of an ongoing administrative request for cancellation and registry blocking.

Additionally, 10 of these property registrations were also included in the contract for the development of the carbon credit project, dated June 15, 2012. One of the contracting parties claimed ownership of the areas and filed a writ of mandamus before the STF seeking to suspend the cancellation of one of the registrations; the action was ultimately dismissed in 2016.

The project further asserts compliance with Brazilian law and claims to be located entirely on privately owned land. However, an analysis of the documentation and the geographic location of the registrations revealed overlaps with the PAEX Joana Peres II, Dorothy Stang, and Deus é Fiel settlements, as well as with the federal land tract known as Gleba Tuerê.[96]

Furthermore, it was found that these properties were also the subject of legal proceedings challenging the validity of their registrations and titles. In Ordinary Action Nº 0000432-23.2002.4.01.3900, pending before the Federal Court of Pará, a portion of the properties was the subject of a request for cancellation of registrations and property titles, filed by the National Institute for Colonization and Agrarian Reform (INCRA). In addition, since 2010, Annulment Action Nº 0000172-81.2010.8.14.0015 has been pending before the Agrarian Court of Castanhal, in which the court ultimately ruled to nullify the legal transaction involving the purchase and sale of 57 rural properties, including those referenced in the project. Despite the existence of these proceedings, in 2017 and 2019, the properties were awarded to one of the project proponents through a court-approved settlement in Action Nº 0001043-51.2015.8.14.0043, which was processed before the Sole Court of Portel.

Property registrations associated with Project 981

The REDD Pacajaí Project, also referred to as ADPML (Project 981), dates to 2008 and was established with a forty-year crediting period. It was registered under the Verified Carbon Standard with the certifier Verra for the commercialization of carbon credits on the international market.

The project claims to cover an area of 135,106 hectares, comprising 18 rural properties. Of these, 16 registrations have been canceled, 2 have been unblocked, and 2 are located outside the boundaries of settlement areas, without any perimeter information having been provided by the project proponent to the certifier. Although the project asserts that these properties are privately owned, geolocation analysis indicates that the registrations overlap with the PAEX Joana Peres II, Dorothy Stang, and Joana Peres Rio Pacajá settlements.[97]

96 For more information on the property registrations related to Project 977, refer to the map developed by the Public Defender's Office of the State of Pará. Technical advisor: Karine Pinheiro, 2023.

97 For more information on the property registrations related to Project 981, refer to the map developed by the Public Defender's Office of the State of Pará. Technical advisor: Karine Pinheiro, 2023.

These properties have also been the subject of legal proceedings challenging the legality of their registration and transfer. In the aforementioned Annulment Action Nº 0000172-81.2010.8.14.0015, the Agrarian Court of Castanhal/Pará issued a ruling declaring the nullity of the legal transaction involving the purchase and sale of 57 rural properties, which included 18 registrations associated with Project 981. In addition, 9 of these registrations were also part of Action Nº 0001043-51.2015.8.14.0043, processed before the Sole Court of Portel, in which the properties were allegedly awarded to a representative of one of the companies involved in the project, through a court-approved settlement issued in 2017 and 2019.

Property registrations associated with Project 2252

The third project, titled Rio Anapu-Pacajá REDD (Project 2252), was established in 2016 with a crediting period of thirty years. It was registered under the Verified Carbon Standard with the certifier Verra for the commercialization of carbon credits on the international market.

The project area covers 165,707 hectares and is described as comprising 36 rural properties claimed to be privately owned. However, the project documentation identifies only 18 property registrations, of which 16 have been canceled and 2 unblocked. These two unblocked registrations are located outside the boundaries of the state settlements and were also used in Project 981.

The project also claims to include 13 Rural Environmental Registrations (CAR), identified by the following numbers: 67788, 68048, 67741, 67889, 67908, 67985, 67695, 67779, 67711, 67747, 67923, 67704, and 68038. However, these identifiers do not match the receipt numbers recorded in the SICAR-PA system, which are alphanumeric and preceded by the state abbreviation corresponding to the property's location (e.g., PA).

An analysis of the project's perimeter and property locations revealed overlaps with the PAEX Joana Peres II, Dorothy Stang, Joana Peres Rio Pacajá, Deus é Fiel, Rio Piarim, and Jacaré Puru settlements.[98]

As with Projects 977 and 981, the properties listed in Project 2252 also appear in the contract for the development of the carbon credit projects, dated June 15, 2012. Similarly, a portion of these properties was included in the judicial settlement for adjudication in Action Nº 0001043-51.2015.8.14.0043, processed before the Sole Court of Portel, and in Annulment Action Nº 0000172-81.2010.8.14.0015, in which the Agrarian Court of Castanhal, State of Pará, issued a ruling declaring the nullity of the legal transaction involving the purchase and sale of 57 rural properties.

Rural Environmental Registrations associated with Project 2620

The final project, titled "Ribeirinho REDD+" (Project 2620), was established in 2017 with a crediting period of thirty years. It was submitted for certification to Verra but was not registered under the Verified Carbon Standard for the commercialization of carbon credits.

98 For more information on the property registrations related to Project 2252, refer to the map developed by the Public Defender's Office of the State of Pará. Technical advisor: Karine Pinheiro, 2023.

The project area covers 199,962 hectares and is described as comprising 875 Rural Environmental Registrations (CAR), with no reference to property registrations, despite the claim that the area consists of private land. In fact, the project includes 191 CARs registered under the name of the proposing association, of which 190 have been canceled by the environmental authority, and 1 is currently suspended.

An analysis of the project perimeter and the location of the Rural Environmental Registrations revealed overlaps with the PAEX Joana Peres II, Dorothy Stang, Joana Peres II Rio Pacajá, Deus é Fiel, Jacaré Puru, and Rio Piarim settlements.[99]

Thus, Project 2620 did not indicate any property registrations, relying exclusively on Rural Environmental Registrations, which do not constitute valid proof of possession or ownership.

The Rural Environmental Registration as a tool for forest carbon land grabbing

The Rural Environmental Registration (CAR) is a national, mandatory electronic public registry for all rural properties, intended to integrate environmental data related to rural holdings and land use[100]. It does not constitute proof of land ownership or possession[101]. Its primary function is to support environmental control, monitoring, and planning – both ecological and economic – as well as efforts to combat deforestation.

Registration in the CAR system is carried out with the environmental authority – preferably at the municipal or state level – which must require the identification of the landowner or possessor, proof of ownership or possession, and the identification of the property, including the preparation of a descriptive report.

The CAR is regulated by Federal Decree Nº 7,830/2012, which governs the Rural Environmental Registration System and establishes general rules for the Environmental Regularization Programs set forth in Law Nº 12,651/2012 (the Forest Code). According to Article 6, § 1 of the Decree, criminal and administrative penalties apply when the information provided is wholly or partially false, misleading, or omitted – as occurred in the case of Project 2620.

In the State of Pará, the establishment of the CAR predates the current Forest Code, through State Decree Nº 1,148/2008, which states that the registration

99 For more information on the property registrations related to Project 2620, refer to the map developed by the Public Defender's Office of the State of Pará. Technical advisor: Karine Pinheiro, 2023.

100 BRAZIL. Law N° 12,651 of May 25, 2012. Provides for the protection of native vegetation; amends Laws N° 6,938 of August 31, 1981; N° 9,393 of December 19, 1996; and N° 11,428 of December 22, 2006; repeals Laws N° 4,771 of September 15, 1965, and N° 7,754 of April 14, 1989, as well as Provisional Measure N° 2,166-67 of August 24, 2001; and provides other measures. Available at: **https://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/lei/l12651.htm**. Accessed on: Feb. 24, 2024. Article 29.

101 Ibid., Article 29, §2.

"does not authorize any economic activity on the rural property, forest exploitation, or vegetation suppression, nor does it constitute proof of possession or ownership for the purposes of land regularization."[102].

In the case of collective state settlement projects under analysis, the Rural Environmental Registration (CAR) is collective, covering the entire area of the traditional territory. Its registration is carried out by the competent agency or institution responsible for land management (in the State of Pará, this is ITERPA) or by the representative entity that owns or holds the concession for the rural properties (such as beneficiary associations of the settlements), as established in Article 58 of Normative Ruling Nº 2/MMA, of May 6, 2014.

Nonetheless, in the cases of Projects 2252 and 2620, the Rural Environmental Registrations were presented by the project proponents as evidence of private land ownership and as instruments of social benefit and land regularization for traditional communities. This resulted in the issuance of dozens of individual registrations within agro-extractive settlement areas, where the CAR should be collective. As a result, the CAR was introduced into the international voluntary carbon market and validated by an international certifier, conferring a veneer of legality on unlawful legal arrangements rooted in the appropriation of public lands and forests – a new form of land grabbing: forest carbon land grabbing. This reflects what Ramos[103] has termed the "Agrarian Metaverse," that is, "the simulation of reality through virtual tools that impact real agrarian life."

Therefore, the CAR has become an instrument of forest carbon land grabbing – i.e., the unlawful appropriation of public lands within public forest areas through the creation of documents that simulate private land ownership. The purpose of this practice is to unlawfully claim title to forest carbon credits as transnational financial assets and civil fruits of the forest, in order to generate financial profit through their commercialization on the international market.

Final considerations

The examination of the voluntary carbon market in Brazil, within the broader context of climate change, underscores the critical importance of addressing land tenure issues – particularly in the Amazon. New forms of unlawful appropriation of public lands have emerged, aimed at exploiting forest carbon credits as transnational financial assets. These practices often target public forest areas that are home to traditional peoples and communities. This scenario reveals yet another structural problem associated with REDD+ projects.

---

102 PARÁ (State of). State Decree Nº 1,148 of July 17, 2008. Regulates the Rural Environmental Registration – CAR-PA, Legal Reserve Area, and other provisions. Available at: Available at: **http://portal.iterpa.pa.gov.br/wp-content/uploads/2020/06/Decreto-Estadual-n%C2%BA1.148-2008-.Disp%C3%B5e-sobre-o-cadastro-ambiental-rural-CAR-PA-%C3%A1rea-de-reserva-legal-e-d%C3%A1-outras-provid%C3%AAncias.pdf**. Accessed on: Jan. 7, 2024. Article 4.

103 RAMOS, Carlos Augusto Pantoja. Metaverso agrário: a simulação da realidade como gerador de conflitos no campo no Marajó. In: Escola da Defensoria Pública do Estado de São Paulo. *Cadernos da Defensoria Pública do Estado de São Paulo*, São Paulo, vol. 10, nº 44, pp. 1–505, Apr. 2025. p. 323.

These projects advance over the territories of traditional peoples and communities from a colonialist perspective, disrupting their social and communal organization. At the same time, large corporations continue operating without reducing their greenhouse gas emissions. Oil companies, airlines, fertilizer and chemical manufacturers, among others, have adopted REDD+ as a strategy to sustain their activities – i.e., they finance such projects to preserve their production models and profit margins, without altering their industrial processes or fossil fuel consumption.

In the case of Portel, individuals and legal entities – Brazilian, Canadian, British, and American – profited from illegal REDD+ projects implemented in traditional territories. The carbon credits generated were sold to companies such as Air France, Boeing, Bayer, Takeda, Toshiba, Kingston, Ecopetrol (Colombia's largest oil company), Barrilha, Delta Airlines, Minerva, Samsung UK, Siemens Energy, McKinsey, Braskem, WeTransfer, and even the English football club Liverpool. These companies purchased credits from REDD+ projects that offered no real environmental benefits and were marked by serious irregularities, including violations of traditional community rights, forgery of public documents, and the submission of false information to Brazil's land tenure and environmental systems.

Therefore, addressing land tenure issues – structural and historical in nature – is essential to any serious discussion on climate change, particularly within the complex land system of the Amazon, which is closely linked to deforestation. It must also be recognized that, in the Amazon, the State actively promotes cattle ranching (which is exempt from emission offset requirements), supports monocultures such as oil palm and soy, and grants land for mining operations – including in collective agrarian reform settlements – and for oil exploration, even within traditional territories. As such, it is imperative to reassess the development model pursued by the State itself.

Moreover, the demarcation of Indigenous lands, the titling of quilombola territories, the creation and protection of protected areas, and the establishment of collective agro-extractive settlement projects are essential territorial governance measures. These actions shape land use, safeguard forests, and support the ways of life of peoples and communities who have historically protected these areas. It is no coincidence that such territories attract the interest of companies and corporations – precisely because they remain preserved. Demarcation and titling also provide legal security for communities facing external threats such as deforestation, illegal mining, and other unlawful activities in traditional territories.

In parallel with territorial recognition, it is equally urgent to implement public policies to combat the illegal appropriation of public lands, particularly in public forest areas. A crucial first step is ensuring access to information through the digitization of land tenure records held by government agencies and property registries (as mandated by Law Nº 14,382/2022), enabling the integration of land and environmental data for effective monitoring and enforcement.

The land tenure records held by federal and state land agencies must be integrated into a unified information system to enable proper verification. Addressing climate change and reducing greenhouse gas emissions requires more than isolated efforts – it demands the integration of public policies and investments in technology to support effective prevention and monitoring measures.

Integrating land information systems across government levels and implementing consistent land governance policies are critical steps toward verifying land ownership. Such verification is also essential for the implementation of Law Nº 15,042/2024, which established the Brazilian Emissions Trading System. Under this law, in the context of the "voluntary supply of carbon credits," public projects (including REDD+ initiatives with a market-based approach) may offer credits in the voluntary market through any developer or entity that holds legal title to them – thereby linking credit ownership and use rights directly to the legal ownership of rural land.

In the case of unallocated public lands and protected areas, the law establishes that the ownership of carbon credits generated on these lands belongs to the Union, States, or Municipalities, in accordance with the legal ownership and usufruct of the land (federal, state, district, or municipal).

For Indigenous Peoples, agro-extractive communities in extractive reserves, quilombola communities, and beneficiaries of agrarian reform settlements, the law guarantees ownership of the carbon credits generated on their lands, "regardless of formal title" (BRAZIL, 2024, Article 43). It also ensures the right to commercialize Verified Emission Reduction or Removal Certificates (CRVEs, the acronym in Portuguese) and carbon credits generated from projects in traditionally occupied territories, provided that social and environmental safeguards are upheld (BRAZIL, 2024, Article 47).

This creates the potential for projects and legal disputes over the ownership of carbon credits in areas where land tenure is unresolved or contested. For example, in the State of Pará, a REDD+ project has been developed by a private company in a palm oil production area that is under dispute with quilombola communities who have traditionally occupied the territory.

Moreover, when it comes to compliance with environmental safeguards, the rights of Indigenous Peoples and traditional communities extend beyond the seven Cancun Safeguards and those established in Law Nº 15,042/2024 (Article 47). In this context, four key clusters of rights are particularly relevant for the protection of these communities:

- Communities must first voluntarily express interest in the development of any project – free from coercion or external pressure – followed by a prior, free, and informed consultation conducted by the State. This process must respect the self-determination of the communities and include their right to withhold consent. Prior consultation should be institutionalized as a public policy – like education and health – within the structure of the State, with dedicated agencies and qualified professionals. Legal basis: Articles 6 and 7 of ILO Convention 169; Article 8, IV of Law Nº 14,119/2021; Article 47, I, "a" of Law Nº 15,042/2024.

- A prior environmental study must be carried out, identifying potential impacts such as restrictions on land use and natural resources, threats to biodiversity, and risks to traditional knowledge associated with biodiversity. These assessments must consider both tangible and intangible aspects of territorial use, including the Territorial and Environmental Management Plan (PGTA, the acronym in Portuguese) or an equivalent document.

Legal basis: Article 7.3 of ILO Convention 169; Article 53, IV of Law Nº 11,284/2006; Articles 3, IV, and 6, XIII of Law Nº 12,187/2009.

- Communities must have access to independent technical assistance, including legal support, given the complexity of project structures. The practice of companies assigning professionals to advise communities presents a conflict of interest and should be avoided. Legal basis: Article 23.2 of ILO Convention 169.

- The State must act as an intervening party – through institutions such as the National Foundation for Indigenous Peoples (FUNAI), Palmares Cultural Foundation, and INCRA – to oversee studies, monitor social, cultural, and environmental impacts, and ensure transparency, benefit-sharing, and equitable governance. Legal basis: Article 7.3 of ILO Convention 169; Articles 43 (opening clause and §5) and 45 of Law Nº 15,042/2024; Article 22 of Law Nº 14,119/2021; Articles 1, 3, and 20, §5 of Law Nº 11,284/2006; Article 3 of Law Nº 9,985/2000.

While REDD+ can be understood as a new form of colonialism, it also presents a concrete and pressing issue that must be addressed. This proposal advocates for grounding the climate change debate in land tenure, as forests and natural resources are inseparable from the land – territory traditionally inhabited and safeguarded by Indigenous Peoples, quilombola communities, and other traditional populations in Brazil.

TRADITIONAL FAMILY FARMING AND SCHOOL MEALS: INTEGRATING HEALTHY FOOD, SUSTAINABLE LIVELIHOODS, AND PUBLIC SAFETY IN A SINGLE INITIATIVE

BY PEREIRA, SOAVE, MENEZES, SEMEGHINI, NOGUEIRA[104]

Context

With nearly 30 million people living across 772 municipalities, the region known as the Legal Amazon[105] is more than just the world's largest tropical rainforest – it is also home to a rich mosaic of cultures and communities. Among them are Indigenous Peoples and Local Communities (IPLCs), who play a vital and strategic role in conserving the biome through their ancestral knowledge, cultural practices, and traditional agricultural and extractive systems.

For decades, Indigenous Peoples, Quilombola communities, riverine populations, extractivists, and other local communities in the region have demonstrated the importance of establishing an ethical relationship between humans and the environment. Grounded in deep knowledge and practices of landscape and biodiversity use and management, this connection fosters the conservation of natural resources and plays a critical role in protecting the Amazon biome. Their contribution directly supports climate change mitigation and advances sustainable development in the region.

Given the numerous challenges faced by both local populations and the forest, it is increasingly urgent to establish new models of engagement and territorial governance – models that intentionally foster socio-environmental interaction and collaboration among diverse social actors. Developing these new frameworks requires open dialogue and cooperation among governments, civil society organizations, research institutions, and the private sector – but above all, it must prioritize the active participation of local communities.

Indigenous Peoples and Local Communities are the true guardians of the forest, consistently taking the lead in defending their territories and safeguarding the diverse Brazilian biomes that sustain the balance of forest and aquatic ecosystems. Despite their vital role in the conservation of the Amazon and other

---

104 This article was written by: **Abilio Vinicius Barbosa Pereira**, Agronomist, Conservation Analyst, and Food and Nutrition Security Connector at WWF-Brazil; **Fernando Merloto Soave**, Federal Prosecutor at the Federal Public Prosecutor's Office in Amazonas, working on issues related to the 6th Chamber for Indigenous and Traditional Peoples' Rights (6ª CCR), coordinator of Catrapoa (AM), the National Permanent Dialogue Roundtable for Traditional Peoples and Communities (Catrapovos Brasil), and the MPF National Agroecology Working Group; **Márcio Menezes**, Agronomist, PhD in Environmental Science and Sustainability in the Amazon from the Federal University of Amazonas (UFAM), Consultant in Agroecology, Public Policy, and Territorial Development, and Technical Advisor to the Traditional Peoples' Food Commission of Amazonas (Catrapoa); **Mariana Gama Semeghini**, Biologist, MSc in Agriculture in the Humid Tropics from the National Institute of Amazonian Research (INPA), Technical Advisor for the Biosphere Program – Bioeconomy and Value Chains Project at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ Brazil). Mônica Nogueira – PhD in Social Anthropology, Professor at the University of Brasília, and Associate Researcher at the Institute for Society, Population and Nature (ISPN).

105 2022 Census – Brazilian Institute of Geography and Statistics (IBGE).

biogeographic regions, they are among the most affected by the lack of basic infrastructure, public policies, and support systems that enable the continuity of their traditional ways of life – ways that inherently contribute to sustainability. Access to essential public services such as education, healthcare, and sanitation remains limited or entirely absent in many rural areas of the Amazon, particularly where these communities reside.

According to Law Nº 11,947 of June 16, 2009, which governs the National School Feeding Program (PNAE, the acronym in Portuguese), the provision of healthy and adequate food includes the use of diverse, safe, and locally sourced products – preferably supplied by family farmers and rural family entrepreneurs, including Indigenous Peoples and Quilombola communities. One of the law's core objectives is to ensure respect for cultural traditions and healthy eating habits, tailored to the local context of each school. In doing so, it supports the growth, holistic development, and academic performance of students, in accordance with their age and health conditions.

The law mandates that at least 30% of the funds transferred by the National Fund for the Development of Education (FNDE, the acronym in Portuguese) be used to purchase food directly from family farmers, rural family entrepreneurs, or their organizations. Priority must be given to sourcing from agrarian reform settlements, Indigenous and Quilombola communities, and both formal and informal women-led organizations. However, many municipalities and states still fail to comply with this requirement. To strengthen enforcement, FNDE Resolution Nº 06 (2020) established that entities responsible for procurement under PNAE that do not meet the 30% minimum from family farming must return the unused portion of the allocated funds.

In schools located within traditional territories or attended by Indigenous Peoples and Local Communities, the lack of culturally sensitive approaches to school feeding by public authorities directly impacts local culture, food and nutrition security, and income generation. This highlights the need for integrative strategies that respect and reflect the specificities of traditional ways of life – particularly in the Amazon – while promoting sustainable, effective solutions both within and beyond these communities.

The Traditional Peoples' Food Commission in Amazonas (Catrapoa)

In 2016, during a visit by the Federal Public Prosecutor's Office in Amazonas (MPF/AM) to the Yanomami Indigenous Land (Yanomami IL) – as part of the monitoring of a community-based ethnotourism project in Yaripo[106] and the Yanomami People's Assembly – the effects of ongoing challenges on local communities became evident, particularly those related to school feeding. These challenges were contributing to the erosion of ancestral food cultures and traditional dietary

106 A community-based ecotourism project in the Yanomami Indigenous Land and the Pico da Neblina National Park, supported by the Socio-Environmental Institute (ISA), the National Indigenous Foundation (Funai), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), and the Brazilian Army.

practices, in clear violation of key legal and constitutional frameworks, including FNDE Resolution Nº 06/2020, the Statute of the Child and Adolescent (ECA, the acronym in Portuguese), ILO Convention 169, and the Federal Constitution. The visit revealed a growing displacement of traditional Indigenous foods by industrialized, processed, and ultra-processed products – or food of irregular origin – despite the rich agrobiodiversity found in traditional farming plots, and through hunting, fishing, and plant gathering practices in villages and communities.

In response to discussions held in 2016 at the Federal Public Prosecutor's Office in Amazonas (MPF/AM), efforts were initiated to address the challenges identified in traditional territories. From this process, the Traditional Peoples' Food Commission in Amazonas (Catrapoa) was established under the leadership of the MPF. Catrapoa is an interinstitutional platform that brings together representatives and leaders from grassroots and support civil society organizations, along with federal, state, and municipal government agencies.

The commission includes participation from Municipal and State Secretariats of Education, the Ministry of Agriculture and Livestock (MAPA) through its Amazonas Superintendency, the Amazonas Agricultural and Forestry Defense Agency (Adaf), the Sustainable Agricultural and Forestry Development Institute of the State of Amazonas (Idam), the National Foundation for Indigenous Peoples (Funai), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the School Feeding and Nutrition Collaborative Center (Cecane), the National Fund for the Development of Education (FNDE), the Federal University of Amazonas (Ufam), the German Technical Cooperation Agency (GIZ), among others.

Catrapoa serves as a mediator of conflicts and a catalyst for solutions, with the goal of operationalizing, coordinating, and promoting strategies to enable the commercialization of products from Indigenous Peoples and Local Communities. One of its initial efforts focused on reviewing and adapting existing legal interpretations of sanitary regulations to ensure that municipal and state governments could procure these products using PNAE resources.

Catrapoa has played a key role in fostering dialogue and coordination to meet school feeding demands in Indigenous and traditional communities through the direct purchase of food products from the communities themselves – promoting not only culturally appropriate meals but also sustainable and lawful income generation. At the time, prevailing interpretations of sanitary regulations posed significant obstacles, preventing the acquisition of essential Amazonian foods such as fish, chicken, cassava flour, and fruit pulp. These restrictions often required costly and complex authorizations, making it difficult for communities to commercialize their products. Additionally, the vast distances of the Amazon region create logistical challenges and high transportation costs – both for bringing food from urban centers to remote communities, and for moving community-produced food to urban markets – further underscoring the need for localized, community-based solutions.

In this context, it became essential to initiate a collaborative, network-based effort across the state of Amazonas, coordinated through Catrapoa, with the first major challenge centered on sanitary regulations. At the time, the prevailing interpretation held that food products produced by Indigenous Peoples could only be purchased by the state and distributed through public programs if they were processed, packaged, and registered with the appropriate sanitary authorities. Given the vast distances between Manaus, the state capital, and most Indigenous

lands and traditional territories, transporting frozen and industrially processed foods was not only logistically unfeasible but also disconnected from the communities' realities. Additionally, the processing requirements imposed by these regulations often disregarded the cultural significance of traditional food practices, undermining the food sovereignty of Indigenous Peoples and Local Communities.

Moreover, schools located within these communities generally lack access to electricity, which makes it difficult to store such food products. In addition, many of the items sent to schools by municipal and state education departments are processed and ultra-processed foods, which, as mentioned, are disconnected from the food culture of many Indigenous Peoples and traditional communities. These products have negative impacts on both health and the environment: they introduce excessive amounts of sodium and sugar into local diets – contributing to conditions such as obesity, hypertension, and diabetes – and generate solid waste in villages and territories, posing risks of soil and water pollution.

Furthermore, ultra-processed meat products (such as cold cuts) are known to be carcinogenic. According to the World Health Organization (WHO), foods like sausages, hot dogs, bacon, and ham increase the risk of cancer in humans. The WHO's warning was based on a report by the International Agency for Research on Cancer (IARC), which reviewed scientific evidence from more than 800 studies. Processed meats are now classified as Group 1 carcinogens, meaning there is sufficient evidence of their link to increased cancer risk – placing them in the same category as known carcinogens such as tobacco, asbestos, and diesel exhaust[107].

A Technical Note[108] prepared within the scope of Catrapoa, and jointly signed by the Federal Public Prosecutor's Office (MPF), the Ministry of Agriculture, Livestock and Food Supply (Mapa), and Adaf in the state of Amazonas, recognized the importance of self-consumption and family consumption, as well as the cultural context of Indigenous food practices. Based on this approach, it became clear that the provision of food produced in traditional territories to Indigenous schools (and to schools in traditional communities, as further outlined in Technical Note Nº 03/2020/6th CCR-MPF) should be understood as an act of self- or family consumption – similar to someone processing cassava-based foods or raising and slaughtering animals in their backyard for personal meals.

This perspective reinforces the preservation of ancestral customs and traditions. Foods such as *moqueado* (smoked fish or meat), dried fish, cassava flour, *beiju* (cassava flatbread), *açaí*, and *bacaba* – all prepared using knowledge passed down over generations – offer healthy, culturally rooted nutrition grounded in a sustainable way of life.

By acknowledging this reality, the technical note issued by authorities in Amazonas establishes that such food products are not required to meet external sanitary regulations or commercialization standards – typically defined within urban-industrial contexts – when intended for Indigenous and traditional com-

107 **https://www.inca.gov.br/sites/ufu.sti.inca.local/files/media/document/rrc-32-prevencao-o-cancer-embutido.pdf**

108 Technical Note N° 01/2017/ADAF/SFA-AM/MF-AM. Available at: **https://www.mpf.mp.br/am/sala-de-imprensa/docs/nota-tecnica-merenda-escolar-indigena/at_download/file**. Accessed on April 17, 2024.

munity schools, as they are consumed by members of the communities themselves, namely the students. The document affirms the value of traditional ways of life and provides a direct response to community demands, grounded in international agreements such as ILO Convention 169, to which Brazil is a signatory.

The second major challenge lies in the limited recognition, management, and formalization of Indigenous Peoples and traditional communities as food producers. Key documents required to access public policies – such as the Declaration of Aptitude for the National Program for Strengthening Family Farming (DAP) and the Rural Producer Card – have become essential prerequisites.

The third challenge concerns the lack of awareness and limited motivation among municipal and state administrators to comply with the legal requirement to source at least 30% of school meal supplies from family farming, with specific provisions for Indigenous Peoples and traditional communities. This challenge is largely rooted in persistent prejudices – widespread not only in Amazonas but across the country – regarding these communities and assumptions about the volume and quality of their production.

The fourth challenge relates to the limited knowledge among Indigenous Peoples and traditional communities about the National School Feeding Program (PNAE) and other public procurement initiatives, such as the Food Acquisition Program (PAA). Many are unaware of their eligibility to supply traditional food products through these policies.

In response to the identified challenges, Catrapoa not only issued Technical Note Nº 01/2017/ADAF/SFA-AM/MF-AM but also launched a series of meetings and workshops throughout the state of Amazonas to facilitate the direct purchase of food for school meals from Indigenous Peoples and traditional communities, through dedicated public calls under the PNAE. This network-driven initiative began in late 2016 and continued over the following years.

Catrapovos Brasil Permanent Dialogue Table: scaling Catrapoa to other Brazilian states

A key national recognition of Catrapoa's effectiveness and relevance came in 2020, when it received the Innovare Award[109] in the Public Prosecutor's Office category. Building on the success in Amazonas, the 6th Chamber for Coordination and Review (CCR) of the Federal Public Prosecutor's Office (MPF) issued a new technical note[110] that same year. Based on the Amazonas precedent, the 2020 note established the concepts of self-consumption and family consumption, while also expanding the sanitary framework within the National School Feeding Program (PNAE) to enable the procurement of food from Indigenous Peoples and traditional communities across Brazil.

109 A legal award designed to identify, highlight, and promote practices that enhance the justice system in Brazil.

110 Technical Note N° 03/2020 – 6th CCR MPF – Traditional Foods. Available at: **https://www.mpf.mp.br/atuacao-tematica/ccr6/catrapovosbrasil/documentos-e-publicacoes/nota_tecnica_geral_-_3-2020_6ccr_-_alimentos_tradicionais.pdf**. Accessed on April 15, 2024.

Seeking to broaden the scope of the initial guidance, Technical Note Nº 03/2020/6th CCR-MPF aligns with Decree Nº 6.040, which created the National Policy for the Sustainable Development of Traditional Peoples and Communities, and with Decree Nº 8.750/2016, which recognizes twenty-nine population groups represented on the National Council for Traditional Peoples and Communities. In doing so, the note extends the framework developed in Amazonas to traditional peoples and communities nationwide.

The Catrapovos Brasil Permanent Dialogue Table was established in 2021 by the 6th CCR with the goal of expanding coordinated efforts to support public procurement of food produced by Indigenous Peoples and traditional communities in other regions of the country. The Dialogue Table brings together representatives from federal public agencies and civil society to address barriers, challenges, and necessary legal and regulatory adjustments to make public procurement from these communities viable.

Results

The outcomes achieved by the Catrapoa and Catrapovos Brasil initiatives mark a significant advancement in the promotion and recognition of Indigenous Peoples and traditional communities throughout Brazil. The success of these efforts is largely attributed to the mobilization and coordination of actions through a strong networked approach. The main results are presented below.

Regional and State Commissions

The Catrapoa and Catrapovos initiatives have inspired 14 other states to establish their own networks and state-level commissions. Currently, commissions are active in 15 Brazilian states: Acre, Amapá, Amazonas, Bahia, Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Pará, Rio Grande do Norte, Rio Grande do Sul, Rondônia, Roraima, Tocantins, and São Paulo. An additional five states – Espírito Santo, Pernambuco, Piauí, Rio de Janeiro, and Santa Catarina – are in the process of creating their own commissions.

Public calls for school food procurement

In 2019, the Amazonas State Department of Education and School Sports (Seduc/AM) launched a public call specifically targeting Indigenous Peoples, benefiting 15 municipalities with a total allocation of R$700,000.

In 2022, the Roraima State Department of Education and Sports (SEED/RR) issued a similar call, resulting in approximately R$2 million in contracts signed with Indigenous communities.

In 2023, the Acre State Department of Education, Culture and Sports (SEE/AC) launched targeted public calls and allocated R$1.038 million for the procurement of food products from Indigenous Peoples in three municipalities.

In 2024, the municipality of Iporanga, located in the Vale do Ribeira region of São Paulo, launched a public call for Indigenous Peoples and traditional communities, allocating approximately R$107,000 for the procurement of food products from quilombola communities to supply their own schools. The initiative covered 100% of rural school units, as well as several urban schools in the region.

Also in 2024, the Amazonas State Department of Education (SEDUC/AM) approved the results of a specific public call totaling R$3.29 million, benefiting Indigenous Peoples and other traditional communities in 36 municipalities – representing 58% of all municipalities in the state. The procurement included proteins and other processed products such as fish, free-range chicken, cassava flour, *beiju*, and fruit pulps.

Since 2018, municipalities in the state of Amazonas have steadily increased their procurement from family farming, with a growing number of public calls specifically directed at Indigenous Peoples and traditional communities.

Income Generated

According to available data, an estimated R$8.9 million in income was generated for Indigenous Peoples and traditional communities through targeted public calls issued by municipal education departments (SEMEDs in Amazonas) and the Amazonas State Department of Education (SEDUC/AM) between 2019 and March 2023. These initiatives benefited over 500 small-scale Indigenous, quilombola, riverside, and extractivist farmers, with contracts established either individually or through associations and cooperatives.

Other highlights

In 2020, a guide and an animated video illustrating the Catrapoa experience and outlining the steps for implementing the PNAE, based on the MPF's Technical Notes, were produced by GIZ in partnership with other Catrapoa-affiliated organizations.

Since its establishment in 2021, the Catrapovos Brasil Permanent Dialogue Table has been actively engaged in discussions around the transition from the Declaration of Aptitude (DAP) to the National Registry of Family Farming (CAF). These documents serve as official identification for family farmers[111] and are essential for accessing various public policies, including the PNAE, the PAA, and credit through the National Program for Strengthening Family Farming (Pronaf).

However, the implementation of the CAF has posed several challenges, including the failure to recognize various categories of Indigenous Peoples and traditional communities, delays in the system, and documentation requirements – such as proof of family member identity and land tenure regularization – that are often unfeasible within the context of these populations.

In 2021, the Catrapovos Brasil website[112] was launched, offering access to the materials mentioned above, along with information, documents, and updates on the State and National Commissions.

In 2022, dialogue was initiated with SESAI (the Special Secretariat for Indigenous Health under the Ministry of Health) to enable the procurement of food for Indigenous Health Houses directly from Indigenous Peoples, through the Food Acquisition Program (PAA).

In 2023, the Federal Public Prosecutor's Office (MPF), through Catrapovos, issued two formal legal recommendations to address these challenges. Recommen-

111 Law N° 11,326 of July 24, 2006: Establishes the guidelines for the formulation of the National Policy on Family Farming and Rural Family Enterprises.

112 **https://www.mpf.mp.br/atuacao-tematica/ccr6/catrapovosbrasil**

dation Nº 01/2023[113] was sent to the Ministry of Agrarian Development and Family Farming (MDA) and the National Fund for the Development of Education (FNDE), proposing adjustments to the CAF system – such as waiving requirements for land possession, ownership, or property registration documents for Indigenous Peoples, quilombola communities, and other traditional populations. The recommendation also addressed additional access barriers within the CAF system.

The Recommendation led to the issuance of Ordinance Nº 20, dated June 27, 2023, by the Ministry of Agrarian Development (MDA), which simplified the process for issuing the CAF to Indigenous Peoples, traditional communities, and family farmers. The ordinance waived the requirement for two specific documents:

- Proof of land ownership, allowing instead for a self-declaration of land occupation; and
- Identification documents for minors under 16 years of age.

Another outcome of the Recommendation was Technical Note Nº 3744623/2023/DIDAF/COSAN/CGPAE/DIRAE[114], issued by the National Fund for the Development of Education (FNDE). The note advises implementing units to accept the Social Identification Number (NIS) of Indigenous, quilombola, or other members of Traditional and Specific Population Groups (GPTS) registered in the Unified Registry for Social Programs (CadÚnico), in cases where the DAP or CAF is not presented. It also recommends that PNAE implementing entities facilitate NIS verification based on the presentation of a CPF (Individual Taxpayer Registry Number) and, when necessary, assist farmers identified as members of traditional communities in updating their NIS – especially when fields indicating Indigenous, quilombola, or GPTS identity are incomplete due to external constraints.

Legal Recommendation Nº 02/2023 was issued to the National Supply Company (Conab), the Ministry of Agrarian Development (MDA), and the Ministry of Social Development, Family, and the Fight Against Hunger (MDS). As a result, Resolution Nº 2, dated June 15, 2023, was issued by Conab, establishing guidelines for the allocation of food purchased with resources from the Food Acquisition Program (PAA).

Resolution Nº 002/2023/Conab incorporated the interpretation set forth in Technical Note Nº 03/2020/6th CCR/MPF regarding the application of sanitary inspection requirements to the commercialization and consumption of food produced by Indigenous Peoples and traditional communities. It also added the NIS as an accepted form of documentation to verify affiliation with traditional peoples and communities.

The inclusion of the NIS as valid proof of family farmer status for members of Indigenous Peoples and traditional communities has significantly expanded their participation in programs such as PNAE and PAA. In the Northern region, for example, individuals from these groups who used the NIS accounted for 57% of all registrations in the PAA in 2023. Nationally, 20% of Indigenous projects – representing over 500 families – also used the NIS for this purpose.

---

113 **https://www.mpf.mp.br/am/sala-de-imprensa/docs/recomendacao-catrapovos-mda-e-fnde**

114 Available at: **https://www.gov.br/fnde/pt-br/acesso-a-informacao/acoes-e-programas/programas/pnae/media-pnae/NTParticipaodePovoseComunidadesTradicionaisnoPNAE.pdf**

Finally, the achievements of Catrapoa and Catrapovos Brasil have gained international visibility and are now serving as a model for other countries. Following a dedicated event on the topic, Colombia, for instance, is currently exploring the possibility of replicating these practices.

Opportunities and challenges

The implementation of Technical Note Nº 03/2020/6th CCR/MPF has created the opportunity for territories to offer food that is culturally appropriate and aligned with traditional practices. It enables the direct provision of locally sourced products to schools – such as fish from nearby rivers, lakes, or the sea; free-range chicken where it is traditionally consumed; and cassava flour produced within the community, among others. In addition to preserving the food traditions of Indigenous Peoples and traditional communities, this approach also brings significant public savings by reducing waste and eliminating the need to transport food over long distances.

By fostering local production and commercialization, income-generating opportunities are created for the communities involved – serving as a powerful deterrent to the co-optation of community members into unsustainable or illegal activities. This is a crucial strategy for keeping rural youth in their territories, especially in regions where economic pressures often stem from illicit activities such as illegal mining, deforestation, and logging.

Where income is generated, there is also a strong front in the fight against socio-environmental crime – an issue that intersects with public safety, food security, and broader efforts to combat deforestation and illegal resource extraction. Strengthening local production and supply chains would significantly improve school nutrition and, more importantly, the health and well-being of Indigenous Peoples and traditional communities. This leads to a pressing question: why isn't there a stronger commitment to supporting local production and food systems?

As part of a targeted initiative by the MPF known as the Amazon Task Force – created to combat large-scale criminal activity in the Amazon, including illegal mining, deforestation, land grabbing, agrarian violence, and wildlife trafficking – the positive impact of income-generating initiatives within communities became increasingly clear. Communities and their leaders tend to show greater resistance to illegal activities and are more actively engaged in preventing the recruitment of local residents into such practices. A model of local economic development grounded in the sustainable use of natural resources and the preservation of traditional knowledge strengthens the socio-economic fabric of Indigenous Peoples and traditional communities. It also contributes to environmental conservation, biodiversity protection, recognition of agrobiodiversity, territorial defense, climate regulation, and food and nutritional security through locally rooted solutions.

There is a clear contradiction in public policy when resources are invested in school feeding programs without generating income for those who need it most. All too often, large suppliers are contracted, while little to no support is given to family farmers and traditional communities. Yet, in any locality where there is an Indigenous, quilombola, riverside, or extractivist school, there is potential for income generation – alongside greater recognition and visibility of rich local food production. With institutional market access, this potential could be significantly expanded.

There are exemplary models that could be rapidly replicated across Brazil, but progress remains slow. The MPF, State Public Prosecutor's Offices, and both State

and Federal Public Defender's Offices (PDOs) have a crucial role to play in removing these barriers – many of which persist due to lack of awareness or insufficient political will to advance change.

When a market is created to benefit one group, it inevitably impacts others. In such cases, it is essential for the MPF, MP, and PDOs to take action and reinforce that the law must be upheld – specifically, the legal requirement that all public agencies purchase at least 30% of school food from family farming, and ensure that meals are culturally appropriate.

One important point for reflection is the limited availability of products from family farmers and from Indigenous Peoples and traditional communities in broader society. The path forged by Catrapoa and Catrapovos Brasil demonstrates the value of collaborative strategies involving government, traditional communities, support organizations, and partners, as well as the urgent need to simplify procurement processes for goods produced by these groups. It is the responsibility of society as a whole to facilitate access to these products and foster a fairer, more sustainable economy.

There have been important advances in adapting and simplifying access to institutional procurement policies – particularly PNAE and the Food Acquisition Program (Purchase with Simultaneous Donation) – for Indigenous Peoples, quilombolas, and other traditional communities. However, as progress continues, new obstacles have emerged, underscoring the need to revise existing regulations, especially those related to documentation requirements and bureaucratic procedures for program participation and accountability. In the context of PNAE, the lack of clear and official guidance from FNDE often generates uncertainty and reluctance among nutritionists and program managers, who may avoid purchasing processed products or animal protein directly from traditional communities due to concerns about regulatory compliance.

Final considerations

The impact of Catrapoa in Amazonas, along with the emergence and expansion of Catrapovos Brasil, highlights the vital role of traditional cultures and knowledge held by Indigenous Peoples and traditional communities in conserving Brazil's diverse biomes and promoting territorial development rooted in socio-environmental justice.

Recognizing the importance of culturally appropriate food and facilitating the inclusion of regional and local products in the school meals of Indigenous and traditional communities does more than strengthen local economies and increase household income. It also contributes to biodiversity conservation, food sovereignty and security, resilience against involvement in illicit activities, and the preservation and enhancement of traditional landscapes and agroforestry systems – ultimately supporting broader efforts to mitigate climate change.

The experience of Catrapoa and Catrapovos Brasil illustrates the effectiveness of integrative, network-based approaches that are attuned to the specific realities of rural territories. These initiatives have served as spaces for dialogue – genuine incubators of solutions and platforms for conflict mediation, interest alignment, and the removal of structural barriers. They offer a replicable model for advancing a more just, sustainable, and equitable economy throughout Brazil.

Support mechanisms and economic alternatives

TABLE OF CONTENTS

PRIVATE FINANCING AS A STRATEGY AND COMPLEMENT TO PUBLIC POLICIES AIMED AT STRENGTHENING ORGANIZATIONS OF TRADITIONAL PEOPLES AND COMMUNITIES

BY MANOEL SERRÃO BORGES DE SAMPAIO[115] AND ANDRÉIA DE MELLO MARTINS[116]

Over the years, international cooperation and philanthropy have become key sources of socio-environmental funding in Brazil. While not intended to replace public budgets, these financial flows have played a vital complementary role, often enhancing the reach and effectiveness of public programs and policies through greater flexibility and responsiveness in implementation.

However, funding partners operate with varying levels of complexity regarding access to and use of resources. These frameworks have been shaped over time by their experiences in supporting projects, leading to increasingly sophisticated evaluation and monitoring processes. This evolution has brought a heightened focus on efficiency and accountability in resource management, as well as the development of tools to ensure sound financial and operational execution while mitigating risks across their portfolios.

As these frameworks have evolved, they have introduced additional layers of requirements for decision-makers, increasing the complexity of project management. A non-exhaustive list includes social and environmental safeguards, gender considerations, minimum fiduciary standards, anti-money laundering protocols, and anti-corruption measures.

While these requirements have significantly improved investment quality and reduced implementation risks, they also raise project management costs and demand a higher level of technical capacity from implementing organizations. In practice, this can become a barrier to direct access for certain groups – particularly those with limited experience or resources to meet formal project management standards.

The increasing complexity of direct access to financing has been a significant challenge for many key social groups vital to forest conservation and the development of the bioeconomy – such as Indigenous peoples, quilombola communities, rubber tappers, fisherfolk, among others. These groups have been seeking greater leadership in environmental financing and have voiced growing concern over the

---

115 **Manoel Serrão Borges de Sampaio**, Fisheries Engineer from UFRPE, with a postgraduate degree in Fisheries Engineering (UFRPE) and a master's degree in Environment and Sustainable Development from UNB. With broad experience in managing projects of various natures, he has been working at FUNBIO since 2007—initially as Project and Program Coordinator in the Financial Mechanisms Unit, and since 2015 as Programs Superintendent, overseeing projects that channel strategic resources for biodiversity through financial and operational mechanisms.

116 **Andréia de Mello Martins**, Lawyer with a master's degree from the Graduate Program in Sociology and Law at UFF. Since 2007, she has been dedicated to the environmental agenda, having worked in a variety of roles—including as an advisor in public institutions, environmental law professor in private institutions, consultant, and project manager in the nonprofit sector. Since 2013, she has served as a Project Manager at FUNBIO, where she is responsible for the conception and coordination of the Climate Dialogues initiative.

strategies commonly labeled as international "best fiduciary practices," which often fail to reflect their realities and capacities.[117]

In general, for funders of socio-environmental projects, several activities are considered essential. These include resource traceability; clear demonstration of progress toward agreed goals – often through tools such as logical frameworks, theories of change, and defined targets and indicators; robust accounting practices; and meticulous recordkeeping to ensure immediate or future verification of expenditures. These requirements are further compounded by the perceived risks associated with implementing socio-environmental projects, particularly those involving social groups[118] governed by specific legal protections. In such cases, special attention is required to uphold the principle of free, prior, and informed consent, as established in the Cancun Safeguards[119] and ILO Convention 169. These internationally recognized safeguards, ratified by Brazil, are critical for ensuring that public policies and private initiatives respect the rights of these groups. However, meeting these standards demands significant mobilization efforts, which often translate into extended timelines and increased implementation costs.

Best practices recommend that all donor-required procedures be clearly structured and documented – whether through project manuals or formal project documents – and supported by tools that enable effective recordkeeping, monitoring, and evaluation. In addition, the establishment of grievance mechanisms is essential, ensuring that stakeholders can confidentially and promptly report conflicts or instances of non-compliance. These channels must include dedicated systems for logging and publicizing grievances, while safeguarding the identity of the complainant. A governance structure should also be in place to review submitted concerns and implement appropriate corrective measures.[120]

However, the full implementation of control mechanisms and safeguards is not a simple task for civil society organizations. Most associated expenses fall under Project Management Costs (PMC)[121], which are often capped at 5% of the total

117 According to representatives of these groups, there is a disconnect between the models being adopted and the realities of the Amazon region. They also point to a mismatch with the economic dynamics of traditional peoples and communities, and in some cases, a lack of respect for the sociocultural specificities of Indigenous communities, for example.

118 In general terms, a social group can be understood as a set of individuals who share established interactions, common goals, and interests, and among whom there is a shared sense of identity. While sociology offers multiple definitions of this concept, in the context of this work, it is important to emphasize the recognition of the identity, culture, and ways of life of the diverse groups of people identified in Brazil.

119 The United Nations Framework Convention on Climate Change (UNFCCC) established the safeguards to be observed in the implementation of actions under the Reducing Emissions from Deforestation and Forest Degradation mechanism—REDD+ (Annex I of Decision 1/CP.16), commonly known as the Cancun Safeguards. These safeguards aim to ensure that the rights and specific needs of diverse social groups are adequately addressed during REDD+ implementation. For more information, see: **https://www.fundoamazonia.gov.br/export/sites/default/pt/.galleries/documentos/monitoramento-avaliacao/4.salvaguardas-REDD/Salvaguardas-AnexoI-Decisao1CP16.pdf**

120 The adoption of grievance mechanisms fulfills a set of safeguard requirements and directly contributes to risk reduction and overall project improvement.

121 Project Management Costs (PMC) refer to a project control tool commonly used within Project

project budget – an amount that is frequently insufficient to meet actual needs. Another important limitation is that "standard" funding structures typically do not allow for contingency budget lines. And when they are allowed, organizations face the challenge of accurately estimating contingency costs and distributing them appropriately over the project timeline. Additionally, there are potential labor-related liabilities, which may be subject to legal claims for up to five years after the end of an employment relationship – well beyond the official project execution period.

The good news is that more and more organizations are professionalizing their operations to meet the increasingly rigorous management standards required for accessing funding. However, this progress is still largely concentrated among a small group. The majority of organizations remain far from these benchmarks, and this gap has led to the exclusion of less-structured organizations from funding opportunities due to their limited management capacity. As a result, discussions are gaining momentum around how to expand access and ensure that a broader and more diverse range of organizations.

The challenge of institutional strengthening

The way socio-environmental financing has been structured over the years is a key factor contributing to the current "crisis." Relationships between funders and implementing organizations are typically based on short-term projects, generally lasting three to six years. These projects rarely prioritize institutional strengthening, which remains a critical yet often overlooked component.

This stems from the expectation that organizations must, in theory, already possess – and be able to demonstrate – the "technical capacity" to implement the proposed project. In practice, however, this is often the very type of support they need most to strengthen their internal structures and ensure long-term sustainability. Even in favorable scenarios where projects include funding for institutional strengthening, this support is typically capped at no more than 20% of the total budget, with results expected within the project's limited timeframe.

To illustrate, consider a hypothetical project led by a traditional, quilombola, or Indigenous community with a total budget of USD 100,000 over four years – an amount that, by current funding standards for these groups, is far from small. In such a case, roughly USD 5,000 per year would be available for institutional strengthening – insufficient, for example, to hire even a single consultant to provide capacity-building support in critical areas such as governance, accounting, project and financial management, document retention, or the purchase of essential equipment and software for implementation. [122]

Management Offices (PMOs) to assess, monitor, and manage project expenses in line with the approved budget, schedule, and the organization's financial needs—while also considering associated risks. These costs typically cover activities related to planning, oversight, reporting, and compliance. However, donors often impose caps on PMC allocations, limiting the percentage of the total budget that can be dedicated to these essential management functions.

122 For this reason, projects funded by the Brazilian Biodiversity Fund (FUNBIO) have begun adopt-

Moreover, the realities of many of these social groups often diverge significantly from formal project requirements – whether in relation to execution timelines, technical language, the logic underlying regulatory frameworks, or the expectation that individuals and organizations already possess robust formal knowledge. Local organizations typically operate with small teams, requiring staff to perform multiple roles, often balancing project management with direct technical implementation.

In this context, capacity-building initiatives are not only essential for institutional strengthening but also serve as critical enablers of project delivery. To help mitigate the challenges posed by this "overload," FUNBIO, for example, has adopted the use of a preparatory (inception) phase. This phase allows for joint planning, training, and readiness activities to be carried out with stakeholders prior to implementation, laying a stronger foundation for successful execution.

Small projects, big ambitions: a two-way street

Among various social groups, Indigenous organizations, for example, typically manage small to medium-sized projects. Each funding modality comes with its own set of advantages and challenges.

Small projects have strong potential for positive impact – engaging new stakeholders, reinforcing public policies, and generating localized benefits. However, they are rarely sufficient to drive structural change in the territories where they are implemented. Moreover, smaller organizations have historically faced significant challenges in scaling their project portfolios. This reality is further complicated by traditional financing models that often conflict with local cultural contexts and impose rigid frameworks – barriers that disproportionately affect traditional, quilombola, Indigenous, and other community-based organizations.

These challenges are further compounded by the complex socio-environmental realities faced by many of these communities, including limited access to healthcare, education, land rights, reliable energy, and digital connectivity. Cultural barriers to managing and executing financial resources also persist, often making it difficult to align conventional project methodologies with the ways of life, economic systems, and cultural practices of traditional and Indigenous peoples.

At the same time, this is a two-way street. It is unrealistic to expect that meaningful transformation will come solely from strengthening Indigenous organizations. The growing and legitimate aspiration for leadership and self-determination among Indigenous groups requires donors to rethink their own practices. This evolving approach must navigate the delicate balance between control and inclusion – ensuring financial and legal safeguards while respecting and preserving the autonomy of these communities.

---

ing alternative strategies in response to this challenge. To address the gap, new support models have been developed that prioritize collective capacity-building processes, aiming to achieve economies of scale in the provision of technical assistance. This approach reflects the understanding that institutional strengthening is intrinsically linked to the development and training of people.

This new approach requires a shift in focus – from an emphasis on procedural control and strict compliance with formal requirements to a methodology centered on governance, decision-making processes, and the quality of stakeholder engagement. The priority should be on how decisions are made, how inclusive and participatory those processes are, and most importantly, the positive impact achieved through the investments.

Activity and budget monitoring tools are undoubtedly important, but they are not an end in themselves. They should be adapted to reflect the complexity of diverse management contexts.

A closer look at the logic behind commonly used monitoring tools reveals that they are largely designed around the requirement for formal evidence – ideally issued by third parties and auditable by independent entities. While this approach is highly effective for preventing corruption, identifying conflicts of interest, and detecting money laundering and other illicit practices, it can also create significant barriers to access. These barriers are particularly acute for communities whose cultural foundations rely on oral tradition, collective and family-based labor, and economies rooted in exchange and shared means of production – where formal documentation is minimal or absent. To better understand these challenges, FUNBIO reviewed over 150 simplified due diligences of specific social groups, prepared by implementing partners of supported subprojects. The findings revealed a common pattern: limited capacity for document retention and record-keeping, which is closely aligned with the cultural and organizational characteristics of these communities.

This reflection on the current financing model is in no way intended to diminish the importance or the valuable results achieved through philanthropic funding – both national and international – or the efforts of bi- and multilateral organizations, particularly in a context of chronic underfunding of social and environmental public policies. Rather, these considerations are part of FUNBIO's ongoing effort to enhance its impact and effectiveness in supporting Indigenous, quilombola, riverine, rubber-tapper, and other traditional organizations. This process involves a broad and coordinated internal engagement – bringing together legal, financial, project management (PMO), technical, and new project development teams.

Underfunding of public policies

In Brazil, the primary instrument for financing public policies is the Annual Budget Law (LOA, the acronym in Portuguese), which – by design – focuses on the short term. In an effort to extend this horizon, the *Brasil em Ação* program (1996–1999) laid the groundwork for the Multi-Year Plan (MYP), first launched as Avança Brasil (2000–2004). This shift extended the planning horizon for strategic projects to four years – an improvement, though still far from ambitious enough given the long-term nature of many public policy challenges.

Some sectors of the Brazilian government have adopted more ambitious long-term planning, with decadal strategies in areas such as energy, health, and education. These sectors benefit from constitutionally earmarked resources and dedicated funds that serve as vehicles for implementation. However, this is not the

case for Indigenous, environmental, or climate policies, which have historically been underfunded and remain highly vulnerable to political and economic volatility. It is important to underscore that these are State policies, and short-term decisions in these areas can result in long-lasting – and often irreversible – consequences for society.

Under Brazilian law, the implementation of public policies is generally carried out through the public budget, which serves as both a planning and management tool. It aligns projected revenues (such as those collected through taxes) with the expenditures authorized by the government over a given period. The budget reflects the direction of fiscal and economic policy, as well as how the government's work plan will be executed, in line with the principles of universality, annual planning, and fiscal responsibility. This framework is composed of three key instruments: the Multi-Year Plan (MYP), the Budget Guidelines Law (LDO, the acronym in Portuguese), and the Annual Budget Law (LOA, also the acronym in Portuguese) – all of which serve as strategic tools for public planning and resource allocation.

Despite the extensive documentation involved, the public budgeting process in Brazil follows a relatively straightforward structure. The Executive Branch must submit a draft budget law outlining the projected plans for the following fiscal year. This proposal must be presented by August of the year prior to its implementation. Based on this draft, the National Congress (or, at the subnational level, the Legislative Assembly or Municipal Council) analyzes, debates, and votes on the proposal, which then becomes the basis for public spending oversight. Once approved, it enables the government to deliver essential public services.

However, during the planning process, funding constraints are frequently identified. A notable example is the federal spending cap established by Constitutional Amendment Nº 95 – commonly referred to as the Public Spending Cap Amendment – which introduced the New Fiscal Regime. This framework was designed to curb the primary deficit and support the restructuring of public finances. It imposes a 20-year limit on the growth of federal expenditures, linking spending increases solely to inflation, as measured by the Broad Consumer Price Index (IPCA, the acronym in Portuguese).

In addition, new direct financing strategies – channeled through the legislative branch – have increasingly been used to set budget priorities via parliamentary amendments. While this approach can broaden access to resources, it often generates conflicts with the original policy planning, particularly in a context of limited public funding. In practice, frequent budget freezes and reallocations are required to ensure that at least the most essential commitments can be fulfilled.

A striking example is the fiscal adjustment that significantly reduced the budgets of several federal agencies. At the federal level, nearly 40% of the originally allocated environmental budget was withheld due to the spending cap. According to data from Ipea (Institute for Applied Economic Research)[123], over a 22-year period, average federal spending on biodiversity and landscape protection amounted to just 0.008% of Brazil's GDP.

123 Viana, João Paulo. *Gastos do governo federal na proteção da biodiversidade e das paisagens (2001-2022): as despesas tímidas do país que abriga a maior biodiversidade do planeta*. Brasília, DF: Ipea, 2024. p. 31

It is worth noting, as highlighted by INESC, that the Indigenous agenda has gained significant prominence under President Lula's administration. In addition to the creation of the Ministry of Indigenous Peoples (MPI), two new budgetary programs were introduced: "Demarcation and Management of Indigenous Territories for Well-Being, Sustainability, and Climate Emergency Response" (1617) and "Pluriethnic, Cultural, and Social Rights for Full Citizenship and the Well-Being of Indigenous Peoples" (5838), complementing the existing "Indigenous Health" program (5122). In total, 32 additional budgetary programs include cross-cutting actions that support Indigenous Peoples.

A notable data point from the 2024 federal budget shows that of the R$112 million allocated to the MPI, approximately R$40 million were directed to the core activity "Policy Management for Indigenous Peoples." Preliminary studies funded by FUNBIO estimate that, over the next ten years, the financial demand to implement the core actions of the National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI, the acronym in Portuguese) could reach approximately R$12 billion (in today's values), excluding the operational costs of the MPI and FUNAI. This highlights a scenario of significant underfunding. Further evidence from INESC[124] shows that only 12% of Territorial and Environmental Management Plans (PGTAs, the acronym in Portuguese) have been developed with national public budget resources. This underscores the importance of complementary funding sources – particularly national and international donations, as well as bi- and multilateral cooperation.

Opportunities and barriers to access in the current funding landscape

As mentioned, bi- and multilateral cooperation has become a key pillar of socio-environmental financing in Brazil. For years, non-reimbursable funding has supported a wide range of initiatives and projects across the country. Globally, this type of financing is distributed through sector-specific channels. For example, the "General Environment" sector receives approximately USD 1.5 billion annually, while the "Water Supply and Sanitation" sector receives about USD 1 billion. However, the distinction between these sectors goes beyond the volume of resources – it lies primarily in the terms of access. Funding for the "General Environment" sector is largely non-reimbursable, whereas most of the resources allocated to "Water Supply and Sanitation" are provided through reimbursable financing, typically in the form of concessional loan agreements.

Within this context, Brazil has positioned itself as a major recipient of international cooperation funding. However, recent data reveal a downward trend in financial inflows. Armed conflicts, large-scale migration, and, more recently, heightened global political instability – exacerbated by the dismantling of long-standing bilateral aid mechanisms such as USAID (United States Agency for

124 INESC. Ampliar para preservar: Análise dos PGTA na retomada da Política Nacional de Gestão Ambiental e Territorial de Terras Indígenas no Brasil. September 2023. Available at: **https://inesc.org.br/wp-content/uploads/2023/09/analise-dos-pgta-na-retomada-da-politica-nacional-de-gestao-ambiental-e-territorial-de-terras-indigenas-no-brasil-inesc.pdf?x12453**

International Development) – have increased the risk of declining international contributions. This outlook becomes even more concerning when considering the limited fundraising performance of emerging multilateral financing mechanisms, such as the Global Biodiversity Framework Fund (GBFF), launched during the Biodiversity COP.

Within the climate agenda, there is a growing trend for bilateral cooperation funding to be structured around results-based payment mechanisms. Notable examples include the Amazon Fund – supported by Norway, Germany, the United States, and others – and the REM Programs[125], financed by the German and UK governments. These initiatives reflect a broader shift toward prioritizing positive socio-environmental outcomes in climate-related investments. Development banks such as the IDB, the World Bank, and even Banco do Brasil have increasingly supported subnational governments in Brazil through policy-based loans (PBLs) [126]. These concessional loans are tied to the achievement of specific policy reform milestones, with a focus on socio-environmental and climate-related goals, which serve as performance triggers for the disbursement of committed funds.

However, other multilateral mechanisms – such as the Green Climate Fund (GCF)[127] – allocate a significantly larger share of their resources to concessional loans than to grants. In many cases, grants are used to enhance the appeal of reimbursable financing by combining both within a single funding strategy, known as blended finance.[128]

Blended finance can take various forms. A recent example is the partnership between Natura Cosméticos, FUNBIO, the securitization firm Vert, and several funders – including the Global Environment Facility (GEF) through its Non-Grant Instrument (NGI)[129], Good Energies, and Fundo Vale – which resulted in the launch of two financial mechanisms based on this approach. The first is an Agribusiness

125 The Global REDD Early Movers (REM) Program is a results-based payment initiative for environmental services.

126 According to the IDB, "Policy-Based Loans (PBLs) provide the Bank's borrowing member countries with flexible, liquid (fungible) financing to support policy reforms and/or institutional changes in a particular sector or subsector. Policy-Based lending is limited to 30% of all Bank lending." For more information, visit: **https://www.iadb.org/en**

127 The Green Climate Fund (GCF) is a global fund that supports developing countries in addressing the challenges of global warming through both the reduction of greenhouse gas (GHG) emissions and adaptation to climate change. It was established in 2010 by the 194 member countries of the United Nations Framework Convention on Climate Change (UNFCCC). Since 2018, FUNBIO has served as an implementing agency for the GCF in Brazil.

128 Blended finance refers to the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development. For more information, visit: **https://www.convergence.finance/**

129 According to the GEF, the NGI is a financing mechanism with the potential to generate financial returns, regardless of whether those returns flow back to the GEF Trust Fund. Financial returns include funds or revenues collected from project/program beneficiaries through the use of non-subsidized instruments. These returns may consist of the original investment amount, principal (excluding agency fees), investment income or interest, dividends, proceeds from the sale of equity stakes, repayment of reserves, and guarantee fees. For more information, refer to the GEF policy document Non-Grant Instruments – FL/PL/02, available at: **https://www.thegef.org/sites/default/files/documents/NonGrant_Instruments_Policy-2014_0.pdf**.

Receivables Certificate (CRA, the acronym in Portuguese), tailored to support extractive organizations and cooperatives in the Amazon. The second is a non-reimbursable fund that, among other objectives, focuses on building the capacity of these organizations to access productive credit.

Adding to this set of strategies is the carbon market – currently one of the most promising avenues for advancing socio-environmental agendas. With substantial potential for mobilizing resources, it offers a powerful mechanism to scale up investments in climate mitigation and adaptation. However, the market still faces important challenges related to regulation, transparency, and ensuring equitable access.

As the examples above illustrate, the current funding landscape offers a broad array of opportunities. However, many of these are restricted to governments, require endorsement from public authorities, or demand a high level of execution capacity, financial solvency, and the provision of guarantees – criteria that few civil society organizations are currently able to meet. Compounding these challenges are lengthy negotiation timelines and the need for specialized personnel to secure and manage significant funding agreements. The fundraising process can take anywhere from six months to three years, involving the preparation of extensive documentation, compliance with rigorous requirements, and the formalization of complex contractual arrangements.

This, in itself, constitutes a major barrier to entry, as it assumes that organizations are already well-structured and capable of dedicating the necessary time and resources to navigate these processes. A due diligence process, for instance, a preliminary assessment of an organization's compliance and capacity, can take several months. It often requires multiple meetings, repeated data requests, legal reviews, and thorough verification of documentation and references.

Moreover, a core component of many funding agreements is the requirement for nonprofit organizations to ensure full compliance with financial management standards. Depending on the project's size and the donor's guidelines, this may involve submitting monthly financial reports, activity and budget updates upon reaching 70% of fund execution, semiannual progress reports, and independent midterm and final evaluations. To meet these demands, organizations must have access to a range of operational capabilities: a reliable supplier network capable of issuing formal invoices; procurement procedures that include obtaining and comparing at least three price quotes; digital management systems; well-defined internal processes; a dedicated financial focal point or team; and professional accounting services. These conditions are often far from the reality of most local organizations.

This reality gives rise to a range of structural needs – among them, the one acknowledged by G20 countries[130]: the imperative to "ensure that resources are widely accessible, adapted to the needs of local communities, protect their rights, and meaningfully engage local implementers such as entrepreneurs, civil society, and historically marginalized communities."

130 Filantropia para o desenvolvimento sustentável síntese e recomendações políticas do grupo de trabalho 9. Rio de Janeiro, 2024. Available at: **https://gife.org.br/wp/media/2024/09/Publicacao_FilantropiaDesenvolvimentoSustentavel_Online.pdf**

To advance in this direction, it is essential to understand the origin of current requirements – whether they stem from bi- and multilateral funds, philanthropic donors, carbon market contracts, or other mechanisms – and to identify the additional layers of conditions imposed by implementing agencies. This analysis is key to discerning what can realistically be adapted to local contexts. It also requires a careful assessment of the risks associated with proposed adjustments – such as supply chain disruptions or reputational impacts – and a reconsideration of both the documentation and capacity requirements, as well as the pathways through which local groups can directly access and manage funding. As explored throughout this text, there is a clear need for new processes and procedures that prioritize impact and outcomes, supported by innovative tools that streamline reporting requirements. By reducing access barriers and lowering current transaction costs, these efforts can help reshape a funding environment that is becoming increasingly complex, especially for Indigenous Peoples, quilombola communities, and other traditional groups.

Self-determination of peoples and mechanisms for knowledge and governance transition

Beyond traditional notions of State and nation, there are communities around the world united by shared elements such as culture, religion, language, and ethnicity. These groups are defined by common goals and collective interests, which are protected under international law and recognized in Article 4, item III, of the Constitution of the Federative Republic of Brazil, through the principle of the self-determination of peoples.

This principle affirms the right of peoples to self-governance and to freely determine their internal governance structures. These structures are defined by the group itself and reflect sociocultural practices and norms developed over time.

In addition, Brazil ratified International Labour Organization Convention 169 in 2002 – one of the most important international instruments for the protection of the rights of Indigenous, quilombola, and other traditional peoples. The convention applies to distinct social groups whose social, cultural, and economic conditions set them apart from the broader national population, whether through their cultural identity, traditions, or way of life.

These legal provisions are further supported by additional regulations that make up Brazil's broader legal framework for the protection of traditional peoples, such as the decree[131] establishing the National Policy for the Sustainable Development of Traditional Peoples and Communities, and the decree[132] instituting the National Policy for the Territorial and Environmental Management of Indigenous Lands (PNGATI). It is, therefore, the responsibility of the Brazilian people and their representative institutions to uphold and ensure the right to self-determination of these communities.

131 Decree n° 6,040, of February 7, 2007.

132 Decree n° 7,747, of June 5, 2012.

These legal provisions are complemented by other regulations that make up Brazil's legal framework for the protection of these groups, such as the decree establishing the National Policy for the Sustainable Development of Traditional Peoples and Communities, and the decree creating the National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI). It is therefore the responsibility of the Brazilian people and their representative institutions to uphold the guarantees of the right to self-determination of these peoples.

The rights and responsibilities of traditional peoples, including Indigenous and Quilombola communities, have gradually been incorporated into public policy and supported through a variety of public services. However, these services remain incipient and insufficient in meeting the scale of existing needs. As a result, the specific demands of these groups have increasingly been recognized and embraced by the philanthropic sector, which has supported numerous initiatives aimed at safeguarding their ways of life and preserving their cultural heritage.

Despite this progress, many communities continue to face barriers in accessing resources – whether due to language limitations or unfamiliarity with formal documentation processes. In some groups, for instance, oral tradition is the primary means of transmitting knowledge, rather than written records, which often creates obstacles to proposing well-founded and meaningful initiatives.

Another significant barrier lies in the lack of cultural adaptation – perhaps the most sensitive of all. Given the different cultural ways of living and self-governing, many of these groups relate differently to day-to-day practices commonly assumed in the project implementation world. In addition, philanthropy often imposes strict requirements around target-setting and reporting, which can be at odds with local customs and ways of working.

For many years, these projects were funded through civil society organizations engaged in defending the rights of these peoples. These organizations have professionalized their staff and built socio-environmental support structures. This long-standing effort – marked by positive outcomes and successful experiences – has been key to reaching the current stage, despite socioeconomic uncertainty, politically adverse environments, and institutional frameworks often unsupportive of such initiatives.

Despite progress, traditional peoples and communities still face limited structural capacity to directly receive philanthropic funding. While many organizations have grown stronger over time, the current funding model often reinforces a degree of dependency. This has sparked an important and ongoing discussion around how to strengthen these groups so they can themselves become fundraisers, implementers, and accountable stewards of resources.

Several strategies can support this shift, including: developing fiduciary standards tailored to local realities; providing continuous training and capacity-building for individuals and organizations; supporting the creation and consolidation of representative civil society organizations; strengthening and establishing dedicated local funds; enabling new service providers to offer technical and financial assistance; and designing digital tools and systems that respond to the specific needs of these organizations and funds.

The core challenge is to design funding structures that ensure access and promote the leadership of these groups, with support processes and mechanisms that are culturally appropriate and responsive to their realities. At the same time,

such structures must contribute to the development and long-term sustainability of their representative organizations, while fully respecting their autonomy and right to self-govern according to their cultural values.

Innovative mechanisms for accessing financing

Over time, a range of private operational and financial mechanisms – often referred to as "funds" – have emerged globally as complementary sources of financing for public-interest goals. These tools are not meant to replace the role of the public sector in funding policies that promote sustainable regional socioeconomic development. On the contrary, they recognize the critical importance and scale of public budgets. What they offer are complementary strategies that can advance key socio-environmental agendas. This is especially relevant in areas that are traditionally the responsibility of the State, where such funds can act as drivers of demand – but not as substitutes for public investment.

Conceptually, "funds" are financial vehicles that can be classified into first-tier, second-tier, and third-tier categories. First-tier funds not only mobilize resources but also directly implement activities. Second-tier funds raise capital from other funds and reallocate it to local implementing partners. Third-tier funds – such as the implementing agencies of the Global Environment Facility (GEF)[133] and the Green Climate Fund (GCF)[134] – channel resources directly from their original sources.

Socio-environmental private funds have been expanding globally. In Latin America, there are approximately 34 such funds[135], and in Africa, 19[136] – many of which are connected through learning and cooperation networks like RedLAC and CAFE. In Brazil, this trend has taken shape through the emergence of regional and local funds established by Indigenous, Quilombola, and rubber tapper organizations – marking a significant shift toward community-led financial mechanisms.

Operating as a fund requires a dedicated institutional arrangement focused on strong governance and effective resource management. It is important to maintain a degree of separation between the fund's core functions and those of implementing organizations to prevent conflicts of interest and safeguard credibility. Any weaknesses in decision-making, impact evaluation, or financial transparency can undermine the fund's ability to attract resources and maintain donor trust.

The creation of private Indigenous funds as dedicated financial vehicles expands the potential to provide long-term, complementary, and flexible resources that can serve as catalysts for new opportunities. The fund's structure, responsi-

133 Stems from the agreements established under the Convention on Biological Diversity (CBD).

134 Stems from the agreements established under the United Nations Framework Convention on Climate Change (UNFCCC).

135 Data obtained from the Latin American and Caribbean Network of Environmental Funds (RedLAC), available at **https://redlac.org/**

136 Data obtained from the Consortium of African Funds for the Environment (CAFE), available at **https://cafeconsortium.org/**

bilities, and processes must be carefully defined according to the specific characteristics and complexity of the demands it seeks to address.

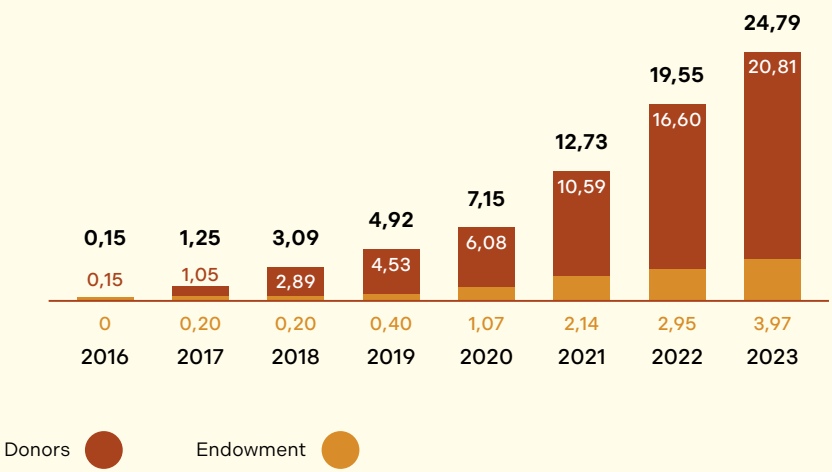
In such cases, funds can strengthen their capacity to design and manage projects, thereby reducing perceived implementation risks. This not only facilitates engagement with potential donors but also enhances the effectiveness and impact of the resources invested. In other instances, the fund may evolve into an implementing entity, assuming responsibilities that go beyond resource mobilization and planning to include direct execution. In both scenarios, the fund operates within the private sphere – complementing and aligning with public policies, while respecting the distinct roles of the public sector.

The resources that support these mechanisms can originate from a variety of funding sources, each with its own rules and operational constraints. Strengthening a fund should go hand in hand with the establishment of governance and management indicators that can be measured from the outset – providing a baseline – and monitored over time to track progress toward pre-defined benchmarks. This process should also safeguard cultural practices and traditions, while meeting minimum fiduciary standards.

It is therefore crucial to define what constitutes essential standards or minimum safeguards that must be presented to any donor, while allowing communities to determine the models through which resources are implemented. This does not imply unrestricted funding, but rather a foundational guarantee of legal and financial security that enables investment without interfering with traditional ways of life.

FUNBIO, for instance, has supported the strengthening of several funds and programs in collaboration with environmental funds in countries such as Mozambique, Guinea-Bissau, and Colombia. The case of Mozambique stands out as particularly emblematic: as illustrated in the graph below, following three years of mentorship, the volume of resources managed by BIOFUND increased exponentially.

Figure 7: Growth of BIOFUND Disbursements (in millions of USD)



Source: BIOFUND 2023

This work was guided by the "Practical Standards for Conservation Trust Funds"[137], developed by the Conservation Finance Alliance (CFA)[138] in collaboration with the environmental funds of the RedLAC network. While this initiative has yielded important results, it is essential to recognize the differences between a socio-environmental fund and an Indigenous fund. The standards outlined in the framework are structured around seven core areas, including: Governance, Institutional Effectiveness, Programs, Resource Mobilization, Risk Management, and Safeguards. More recently, additional standards have been incorporated, such as: Communications, Human Resources, Monitoring and Evaluation, and Technology.

Building on these and other accumulated experiences, FUNBIO developed the Institutional Assessment Tool – a simplified, self-declared form of due diligence in which organizations provide supporting evidence for their self-assessments. This participatory process is designed to identify the level of institutional risk associated with the implementation of a given program or project, offering clarity and assurance to both funders and recipients.

The tool defines four levels of risk: Low, Medium, Substantial, and High. Each level corresponds to a specific form comprising eight sections that address key areas such as Governance, Project Management, Finance, and Gender, among others. The number and complexity of questions increase with the risk level. For instance, the Governance section includes five questions in the Level 1 form, compared to 24 in the Level 4 form. Applying these forms allows for the identification of institutional weaknesses, encouraging organizations to address gaps and thereby strengthen their management capacities.

In 2024, FUNBIO's Project Management Office (PMO) conducted an analysis of 2023 implementation data from 80 organizations, comparing the assessed institutional risk levels with the budget execution performance of their respective projects. In a sub-sample of eight organizations per risk level, the analysis showed – as expected – that organizations classified as Low Risk had approved financial reports more closely aligned with their planned budgets for 2023. This finding was statistically supported by ANOVA and Tukey's test at a 5% significance level. However, no statistically significant differences were observed for the other risk-related characteristics.

FUNBIO is currently conducting additional studies with a larger sample of projects to better understand not only the overall risk levels, but also which specific aspects of institutional capacity have the greatest impact on financial execution. These studies aim to go beyond the total volume of funds accounted for, analyzing factors such as delays in financial reporting and disbursements, the frequency of errors in financial reports, the number of required adjustments, and other relevant indicators.

137 This tool was developed based on nearly 28 years of practical experience in managing resources through the environmental funds that are members of the RedLAC network, including FUNBIO. It acknowledges the need for a prioritization process among the standards, considering the varying stages of maturity and operational scale of different funds.

138 For more information, visit: **https://www.conservationfinancealliance.org/**

In recent efforts to streamline the due diligence[139] – particularly during preparatory work for the LEAF Benefit-Sharing Program – thirteen key project management elements were prioritized. These included governance structure, infrastructure, financial and accounting management capacity, financial health, and the volume of resources managed. Together, these components offer a snapshot of an organization's capacity to meet formal requirements currently in place.

This exercise was very well received by the participating organizations, as it encouraged their representatives to reflect on their current management capacity, their short- and medium-term ambitions regarding the complexity and volume of resources to be managed, and – most importantly – the areas they identified as priorities for institutional strengthening.

As noted earlier, this is a two-way street: funders must also revisit and adapt their processes and tools. Based on initial findings, FUNBIO is developing an accreditation process for regional organizations and funds to establish new financing channels. The goal is to enable direct access to funding for accredited entities, significantly streamlining the funding process by recognizing their existing management capacity. Similar to the approach taken by some multilateral funds, these organizations would be accredited based on both their resource access ceiling and their geographic scope – local, regional, or national.

The need to harmonize existing standards – or even develop new ones – does not lessen the importance of establishing a clear strategy to ensure that mobilized efforts and resources achieve the intended efficiency and effectiveness. Such a strategy is key to optimizing the processes for assessing the technical and financial quality of projects submitted by these organizations. These new approaches are being incorporated into the latest version of FUNBIO's online project monitoring platform, Cérebro 3 – the third generation of its project management system. This updated model is closely linked to the ongoing shift toward more flexible execution and reporting procedures, in alignment with funder requirements.

In conclusion, we emphasize that enabling full access to and management of resources by Indigenous, Quilombola, and traditional peoples and communities is a gradual process – one that requires key conceptual and procedural adjustments. These include: increased flexibility in the funding and execution standards of bilateral and multilateral cooperation, as well as national and international philanthropy; the specialization of financial vehicles to improve performance through simplified implementation procedures; the strengthening of existing social organizations and representative funds, along with the possible creation of new ones; and the development of service and product providers suited to local realities.

This convergence of efforts and resources has the potential not only to significantly increase the volume of funding mobilized, but also to accelerate the emergence of a more equitable and effective financing landscape – one marked

139 Carried out by FUNBIO in collaboration with key partners, including Indigenous associations, rubber tapper and Quilombola organizations, and beneficiaries of the Enabling Conditions Fund, in partnership with Natura Cosméticos and the securitization company Vert.

by stronger safeguards, greater impact, and enhanced redistributive outcomes. May more innovations continue to emerge.

BENEFIT-SHARING: SUPPORT STRATEGIES FOR DIFFERENT SOCIAL GROUPS IN THE CONTEXT OF CLIMATE CHANGE

BY MANUELA TAMBELLINI[140] AND ISABELLE COSTA[141]

Brazil is a country of continental scale, shaped by diverse histories, cultures, and social formations. It is home to numerous Indigenous peoples and social groups who interact with nature in an integrated way as part of their daily lives, maintaining unique ways of life and traditional knowledge systems that are internationally recognized. The Convention on Biological Diversity (CBD), signed in 1992 under the United Nations, acknowledges the vital role of Indigenous peoples and traditional communities in biodiversity conservation and underscores the importance of their knowledge in the development of products across various industries – such as cosmetics, pharmaceuticals, and biotechnology.

In the private sector, both international and national climate finance have increasingly incorporated investment components aimed at supporting diverse social groups – particularly Indigenous peoples – as seen in the implementation of the COPAÍBAS Program. The design of these programs and projects typically follows access and resource management models aligned with donor guidelines, with accessibility criteria being actively discussed across a range of forums.

Within this context, REDD+ stands out as a mechanism that seeks to establish clear rules and incentives for actors who can demonstrate concrete efforts and measurable results in forest conservation and deforestation reduction. Intercultural dialogue is essential in this process, enabling differences to be transformed into opportunities for developing consistent and long-term projects, programs, plans, and policies.

On the other hand, building exchange networks, strengthening partnerships, and fostering capacity development are key strategies for supporting local communities. Complementing these efforts, support for structuring sociobiodiversity value chains and advancing the bioeconomy – through the creation of new institutional arrangements – holds significant potential to generate sustainable economic alternatives in these territories.

By developing new strategies, it becomes possible to move beyond litigation as the primary means of conflict resolution, opening pathways for more diverse institutional and economic frameworks. In this context, combating deforestation and climate change depends on reinforcing the role of social groups that conserve biodiversity and maintain practices deeply interconnected with nature.

---

140 Manuela Tambellini, Project Analyst at FUNBIO for the COPAÍBAS Program, holds a degree in Tourism from the Faculdade de Turismo da Bahia and a master's degree in Environmental Science from UFF. With over 20 years of experience in the environmental field, she worked for 13 years at the State Environmental Institute (INEA), where she held, among other roles, the position of Manager of Visitation, Business, and Sustainability at DIRBAPE.

141 Isabelle Costa, she is currently pursuing a postgraduate degree in Environmental Project Management at the Federal Institute of Rio de Janeiro and holds a degree in Journalism. She worked for 10 years in corporate communications and is currently a consultant for the COPAÍBAS Program, within the Climate Dialogues initiative.

In this context, strengthening the exchange of information between organized civil society and members of the Brazilian Justice System requires not only a shared understanding of the concept of benefit-sharing but also the dissemination of successful strategies that address common challenges. This alignment paves the way for the secure and legally sound implementation of carbon credits, REDD+, bioeconomy initiatives, Payment for Environmental Services (PES), and other financial instruments – ensuring they deliver positive impacts across diverse social groups.

Benefit-sharing as a strategy for resource access

Benefit-sharing is a mechanism aimed at ensuring the fair and equitable distribution of the value generated from the use of genetic resources and traditional knowledge between those who hold and provide this knowledge and those who use it for research, development, and commercialization purposes.

Under the CGEN (Genetic Heritage Management Council) Resolution, benefit-sharing refers to the obligation to redistribute the gains derived from the use of genetic resources and traditional knowledge to the communities that hold and preserve them. This concept is closely aligned with the Convention on Biological Diversity (CBD) and the Nagoya Protocol, which establish guidelines to ensure that Indigenous peoples, traditional communities, and smallholder farmers are fairly compensated for their contributions to the conservation and sustainable use of biodiversity. It is a legal duty aimed at safeguarding natural resources and ensuring their availability for future generations.

In Brazil, the Biodiversity Law[142] and Decree Nº 8.772/2016[143] regulate benefit-sharing by requiring companies, research institutions, and other users who economically exploit products derived from genetic heritage or associated traditional knowledge to share financial or non-financial benefits with the knowledge holders.

The concept of benefit-sharing began to take root in the 1990s, following the adoption of the Convention on Biological Diversity (CBD) in 1992, during the Earth Summit (ECO-92) in Rio de Janeiro. The CBD established three core pillars:

- Conservation of biodiversity
- Sustainable use of its components
- Fair and equitable sharing of the benefits arising from the use of genetic resources

142 Law N° 13.123 of May 20, 2015 — Regulates item II of §1 and §4 of Article 225 of the Federal Constitution, Article 1, item (j) of Article 8, item (c) of Article 10, Article 15, and §§3 and 4 of Article 16 of the Convention on Biological Diversity, enacted by Decree N° 2.519 of March 16, 1998. It addresses access to genetic heritage, the protection and access to associated traditional knowledge, and the sharing of benefits for the conservation and sustainable use of biodiversity. It repeals Provisional Measure N° 2.186-16 of August 23, 2001, and provides other measures.

143 Decree N° 8.772 of May 11, 2016 — Regulates Law N° 13.123 of May 20, 2015, which addresses access to genetic heritage, the protection and access to associated traditional knowledge, and benefit-sharing for the conservation and sustainable use of biodiversity.

To strengthen and clarify these principles, the Nagoya Protocol was adopted in 2010, establishing more detailed rules for how countries should regulate access to genetic resources and the distribution of benefits. Brazil formally became a party to the protocol in 2023.

However, at the national level, the initial regulation was introduced through Provisional Measure Nº 2.186-16/2001, which faced significant controversy and practical challenges in its implementation. In 2015, Law Nº 13.123 – commonly known as the Biodiversity Law – was enacted, providing clearer guidelines for benefit-sharing and establishing two key mechanisms: the National Benefit-Sharing Fund (FNRB) and the National System for the Management of Genetic Heritage (SISGEN).

Studies show that the FNRB still faces significant challenges in fulfilling its purpose of promoting fair and equitable distribution of benefits derived from biodiversity. Payments remain concentrated among a few companies, and overall revenue collection has been lower than anticipated. Moreover, gaps persist in the effective implementation of regulations and the enforcement of benefit-sharing rules.

The benefit-sharing strategy was developed to address historical injustices related to the use of biodiversity and traditional knowledge. For many years, companies and research institutions accessed and utilized genetic resources and traditional knowledge without the consent of the communities that held them – often resulting in biopiracy. To prevent such misuse, legal instruments were established to:

- Prevent the misappropriation of genetic resources and traditional knowledge.
- Ensure justice and equity for the communities that have conserved and used these resources for centuries.
- Promote the conservation and sustainable use of biodiversity.
- Support the economic and social development of traditional communities through financial compensation and investments in infrastructure, education, and health.

The fair and equitable sharing of benefits stands out as one of the most sensitive and pressing issues in global discussions on the sustainable use of biodiversity and natural resources – especially in the Amazon. Traditional communities and Indigenous peoples have long maintained a deep and intrinsic connection to the biome, embodying a balance between cultural heritage, survival, and, more recently, climate change resilience.

More than a legal mandate established by the Nagoya Protocol and Brazil's Law Nº 13,123/2015, benefit-sharing is a recognition of the generations of knowledge held by these populations. By protecting traditional knowledge, mechanisms such as benefit-sharing aim to ensure that the economic use of biodiversity takes place in a way that respects and safeguards those who have historically preserved and cared for these territories.

The financial compensation provided through fair benefit-sharing carries a symbolic weight of recognition and respect for the vital role these groups have played – and continue to play – in conserving biodiversity and maintaining the natural cycles essential to climate stability. The traditional knowledge these communities hold on the sustainable management of natural resources offers valuable

insights for developing innovative solutions to mitigate the impacts of climate change on a global scale, bridging ancestral wisdom with new technologies.

For many social groups – whether Indigenous peoples, quilombola communities, or other traditional populations – more than financial returns, what truly matters is the strengthening of their capacity for self-governance, the protection of their territories, and the affirmation of their cultural practices. The key challenge, however, lies in ensuring access to financing through existing models in a way that safeguards and supports their ways of life.

Moreover, benefit-sharing should be recognized as a strategic tool in tackling the climate crisis. The protection of biodiversity, when combined with the valorization of traditional land management practices, can strengthen conservation networks while creating sustainable economic opportunities for local communities. Initiatives that involve the development of biodiversity-based products or the adoption of traditional agricultural practices – such as agroforestry systems – have the potential to stimulate local economic development and, at the same time, contribute meaningfully to environmental conservation.

To that end, it is essential to design policies, plans, and programs that integrate command-and-control measures with alternative approaches to social engagement, supported by economic instruments that enable and incentivize sustainable practices. In doing so, benefit-sharing can broaden its scope to encompass efforts such as deforestation reduction and forest restoration.

Within this framework, key support mechanisms still need to be strengthened, including enforcement efforts, the practical application of legislation, and measures to reduce the influence of competing economic interests, among other critical factors.

In this context, the National Benefit-Sharing Fund (FNRB) functions as a key mechanism for channeling compensation to traditional communities and Indigenous peoples for the use of their knowledge and Brazil's biodiversity. Linked to the Ministry of the Environment and Climate Change (MMA), the fund has a financial nature and is managed by the National Bank for Economic and Social Development (BNDES), under the guidance of the FNRB Steering Committee, chaired by the MMA.

Established to ensure the fair and equitable distribution of benefits arising from the use of genetic resources and traditional knowledge, the FNRB plays a central role in implementing Brazil's National Benefit-Sharing Policy. Its operations are directly guided by Law Nº 13,123/2015, which regulates access to genetic resources and associated traditional knowledge, as well as the sharing of benefits derived from their use.

The fund is financed through mandatory benefit-sharing contributions, which apply when companies, research institutions, or other entities use biological information or traditional knowledge for scientific, technological, or commercial purposes. These resources are allocated to projects that promote sustainable development and the recognition of traditional practices, through either monetary or non-monetary means, depending on the specific context.[144] The use of

144 The categories may include: access to genetic heritage; access to associated traditional knowledge of non-identifiable origin; and access to associated traditional knowledge of identifiable origin.

these funds may include direct payments to communities, contributions to biodiversity conservation funds, capacity-building initiatives, technology transfer, infrastructure investments, and improved access to products and services, among other forms of support.

While the legal mechanisms regulating access to genetic resources and associated traditional knowledge mark important progress, they can fall short if they do not actively involve the communities themselves in decision-making processes. Participatory management and the collective construction of agreements are essential to ensure that these populations are properly consulted and have a meaningful voice in how their knowledge and resources are used. It is crucial to acknowledge the unique social and ecological contexts of each community in order to build a sustainable development model that delivers equitable benefits.

For many traditional populations, the effects of global warming – such as prolonged droughts, severe flooding, and biodiversity loss – are already a stark reality. Including these communities in climate solutions not only strengthens natural resource conservation but also advances climate justice. More than passive beneficiaries of legal frameworks, these groups are key actors in building a more balanced future – where respect for biodiversity and traditional knowledge translates into tangible actions to mitigate the impacts of climate change.

Thus, benefit-sharing mechanisms embedded within legal and regulatory systems could help foster a more inclusive and socially just market – one that recognizes family farmers, traditional communities, small-scale environmental service providers, and vulnerable groups as legitimate economic beneficiaries of the forest carbon market. This would require a participatory and transparent governance model to guide benefit distribution.[145] Nonetheless, much remains to be done to advance these discussions and ensure that such mechanisms do not inadvertently increase the vulnerability of these groups under the promise of compensation for keeping forests standing.

The carbon market offers a promising avenue for financially recognizing the conservation efforts of peoples and communities who live in harmony with nature. However, it is essential that institutional arrangements for such mechanisms reflect the sociocultural and economic specificities of the territories involved. This requires acknowledging traditional knowledge, ensuring the right to free, prior, and informed consent for affected communities, and establishing effective mechanisms for social monitoring and accountability. Developing strong regulatory frameworks that prioritize equity and environmental justice is crucial to upholding the rights of local populations and ensuring that climate solutions are both fair and inclusive.

Equitable benefit-sharing, when aligned with integrated public policies and the strengthening of local capacities, can transform the carbon market and related mechanisms into powerful tools for reducing inequality and valuing Brazil's sociobiodiversity. To achieve this, it is essential to recognize that the effective implementation of benefit-sharing arrangements depends on a collective effort – built

145 Mello, Andréia. *Perspectivas jurídicas para um futuro sustentável: reflexões do FOPEMA sobre mudanças Climáticas e combate ao desmatamento*. Rio de Janeiro. Funbio. (2024)

on networked collaboration that brings together diverse knowledge systems, lived experiences, and a wide range of social actors.

Creating a just and inclusive system requires the active participation of local communities, civil society organizations, researchers, public officials, and private sector stakeholders committed to socio-environmental justice. Only through continuous and collaborative dialogue can we design mechanisms that honor territorial diversity, promote equity, and ensure that the benefits of forest conservation are shared broadly and fairly.

THE COPAÍBAS PROGRAM IN INDIGENOUS TERRITORIES OF THE CERRADO AND THE AMAZON

BY JOYCE BARBOSA[146] AND PAULA CEOTTO[147]

Indigenous peoples, along with other traditional communities, play a critical role in safeguarding 80% of the world's biodiversity, despite comprising less than 5% of the global population. A 2021 study by the Food and Agriculture Organization (FAO) and the Fund for the Development of Indigenous Peoples of Latin America and the Caribbean (FILAC), published by the United Nations, found that 45% of the planet's remaining intact forests are located within Indigenous territories.[148] Research by the University of California further demonstrated that between 1982 and 2016, deforestation rates were significantly lower within demarcated Indigenous lands compared to surrounding forested areas.[149] Similarly, a 2023 study by MapBiomas revealed that over the past 30 years, native vegetation loss in Indigenous lands was only 1.2%, while private lands experienced a deforestation rate of 19.9%.[150]

In this context, Indigenous peoples play a crucial role in defending and preserving their territories and the surrounding natural areas – particularly in regions where they actively resist the predatory exploitation of resources such as illegal mining, logging, and agribusiness encroachment. By protecting their lands, Indigenous communities also safeguard the ecosystems and biodiversity they harbor. There is broad consensus among the scientific and environmental communities that Indigenous peoples are key actors in environmental conservation, both in Brazil and globally.

Yet, despite inhabiting their ancestral territories since time immemorial, Indigenous peoples in Brazil face persistent and serious threats – not only to their lands, which are essential to their physical and cultural survival, but also to their

146 Biologist, Master in Ecology, and PhD candidate in Social Sciences with a focus on Anthropology. She has worked for over 15 years in the socio-environmental field with traditional peoples and communities in Brazil. At FUNBIO, she is responsible for the Indigenous Component of the COPAÍBAS Program. She is also engaged in academic research on nature, culture, and society, with a focus on decolonial epistemologies.

147 Project Manager of the COPAÍBAS Program at FUNBIO. She holds a degree in Biological Sciences and a Master's in Biological Sciences (Zoology) from the Federal University of Rio de Janeiro (UFRJ), a PhD in Insect Systematics and Evolution from the National Museum of Natural History in Paris (France), and an MBA in Strategic Management for Sustainable Development from CERAM Business School (France).

148 Indigenous Peoples and Traditional Communities and Forest Governance. Food and Agriculture Organization of the United Nations (FAO) and Fund for the Development of the Indigenous Peoples of Latin America and the Caribbean (FILAC), 2021. Available at: **https://www.fao.org/brasil/noticias/detail-events/en/c/1391340/**

149 Baragwanath, K., & Bayi, E. (2020). Collective property rights reduce deforestation in the Brazilian Amazon. Proceedings of the National Academy of Sciences, 117(34), 20495–20502. **https://doi.org/10.1073/pnas.1917874117**

150 Seven facts about Indigenous Lands in Brazil. MapBiomas, 2023. Available at: **https://brasil.mapbiomas.org/**

fundamental rights. In response, the COPAÍBAS Program has developed strategies to promote the recognition of Indigenous peoples' inherent rights and to support their leadership, autonomy, and self-determination in matters related to territorial protection, environmental management, and the sustainable use of natural resources. In line with this objective, the Program also works to strengthen the institutional capacity of local Indigenous organizations and to promote the active participation of Indigenous women in decision-making processes and in initiatives focused on territorial and environmental governance. By affirming the importance of land and natural resources to cultural continuity and well-being, COPAÍBAS also contributes to reducing deforestation in the Cerrado and Amazon biomes, where its actions are currently implemented.

One of the foundational pillars of the Indigenous Component is the National Policy for the Territorial and Environmental Management of Indigenous Lands (PNGATI, the acronym in Portuguese), established by Decree Nº 7,747 of June 5, 2012. The Territorial and Environmental Management Plans (PGTAs, also the acronym in Portuguese)[151] are a key instrument for implementing PNGATI and serve as a reference for guiding public policies, initiatives, and actions related to the territorial and environmental governance of Indigenous lands in Brazil. In addition to PGTAs, a range of other Indigenous territorial and environmental management instruments (IGATIs) have been collectively developed by various Indigenous peoples over the past two decades. These include ethnomapping, ethnozoning, participatory ethno-environmental assessments, territorial protection plans, life plans, action plans, management programs, and priority guidelines for territorial and environmental governance, among others.

In this context, and in alignment with the guidelines and objectives of PNGATI, the COPAÍBAS Program supports projects led by Indigenous and Indigenous-supporting organizations focused on the development and implementation of PGTAs and other IGATIs in the Cerrado and Amazon biomes. In addition, the Program provides support for the institutional strengthening of Indigenous organizations, including training in organizational and project management, as well as the establishment of governance structures for PGTAs. The primary target audience of the Indigenous Component of COPAÍBAS includes civil society organizations representing Indigenous peoples in their various forms – such as local and regional associations, NGOs, and OSCIPs (Civil Society Organizations of Public Interest) – located across the more than 400 Indigenous Lands identified by FUNAI in the Cerrado and Amazon, which are at different stages of land tenure regularization.

The Program supports a wide range of initiatives, from local projects developed by grassroots organizations that address the specific needs of their territo-

151 PGTAs are dynamic instruments aimed at valuing Indigenous tangible and intangible heritage, promoting the restoration, conservation, and sustainable use of natural resources, and ensuring improved quality of life and the full conditions for the physical and cultural continuity of present and future Indigenous generations. They should reflect the leadership, autonomy, and self-determination of Indigenous peoples in negotiating and establishing internal agreements that strengthen territorial protection and control. PGTAs also serve as a guiding tool for the implementation of public policies directed at Indigenous peoples (Funai, 2013).

ries and communities, to larger efforts aimed at structural support and regionally coordinated strategies.

Supported organizations were selected through calls for proposals evaluated by experts in the field. The first Indigenous Call for Proposals (06/2022) launched by the COPAÍBAS Program focused on local initiatives led by grassroots Indigenous organizations. It resulted in support for the development and implementation of PGTAs and other IGATIs in 23 Indigenous Lands – 18 in the Amazon and 5 in the Cerrado – and the institutional strengthening of 16 Indigenous organizations. Altogether, the supported initiatives involve 37 Indigenous peoples and contribute to the protection of territories with documented presence of isolated Indigenous groups.

The second Call for Proposals under the Indigenous Component of the COPAÍBAS Program (Call 17/2022) aimed to broaden the reach of OCII actions and expand support for local projects by selecting proposals from Indigenous or Indigenous-supporting institutions with proven experience in project management, strong institutional capacity, and recognized expertise in the territorial and environmental management of Indigenous Lands (ILs), as well as in providing advisory support to Indigenous organizations and communities in diverse contexts. These institutions – referred to as "aggregators" – are responsible for coordinating and managing the implementation of local subprojects benefiting less-structured Indigenous communities and organizations. They may partner with other Indigenous or Indigenous-supporting institutions to provide technical support. In addition, aggregating institutions are expected to carry out targeted activities to strengthen the institutional capacity of associated grassroots organizations. Projects selected through Call 17/2022 support the development and implementation of territorial and environmental management instruments in 29 Indigenous Lands – 15 in the Amazon and 14 in the Cerrado – and the institutional strengthening of 39 Indigenous organizations. These initiatives involve 34 Indigenous peoples and contribute to the protection of territories where the presence of isolated Indigenous groups has been recorded.

The COPAÍBAS Program currently supports 51 Indigenous and Indigenous-supporting organizations, encompassing 54 Indigenous peoples across 51 Indigenous Territories. A key source of pride for the Program is its ability to engage not only a wide diversity of Indigenous groups, but also a broad range of PGTA and IGATI initiatives that reflect the rich environmental, cultural, and socioeconomic diversity of these territories. Supported projects include autonomous Indigenous initiatives for territorial surveillance and monitoring; ethnomapping and ethnozoning; the formation of Indigenous environmental agent teams; efforts to strengthen food sovereignty and generate income through traditional agricultural practices and non-timber forest product value chains; restoration of degraded areas; cultural revitalization and preservation; promotion of women's leadership and youth engagement in territorial and environmental governance; strengthening of territorial management networks; and technical training in territorial, project, and organizational management, among others. Through this approach, COPAÍBAS acknowledges and values the sociocultural plurality of Brazil's Indigenous peoples – including their cosmologies, ways of life, traditions, and land-use practices.

The Indigenous Component of the COPAÍBAS Program stands out as a vital initiative for the protection of Indigenous Territories and the empowerment of

Indigenous peoples in the governance of their lands and natural resources. By promoting autonomy, supporting cultural resilience, and safeguarding forests and biodiversity, the program contributes not only to the conservation of the Cerrado and Amazon biomes but also to the affirmation of Indigenous peoples' inherent rights and their essential role in environmental stewardship. This collective effort marks a meaningful step toward ensuring the protection of Indigenous territories – and, in doing so, the preservation of our shared global natural heritage.

The content of the articles is the sole responsibility of the authors and does not necessarily reflect the views of the Brazilian Biodiversity Fund (FUNBIO). FUNBIO serves as the organizer of this initiative, which provides a platform for diverse voices—including representatives of the Brazilian justice system and, in this volume, members of civil society.

TABLE OF CONTENTS

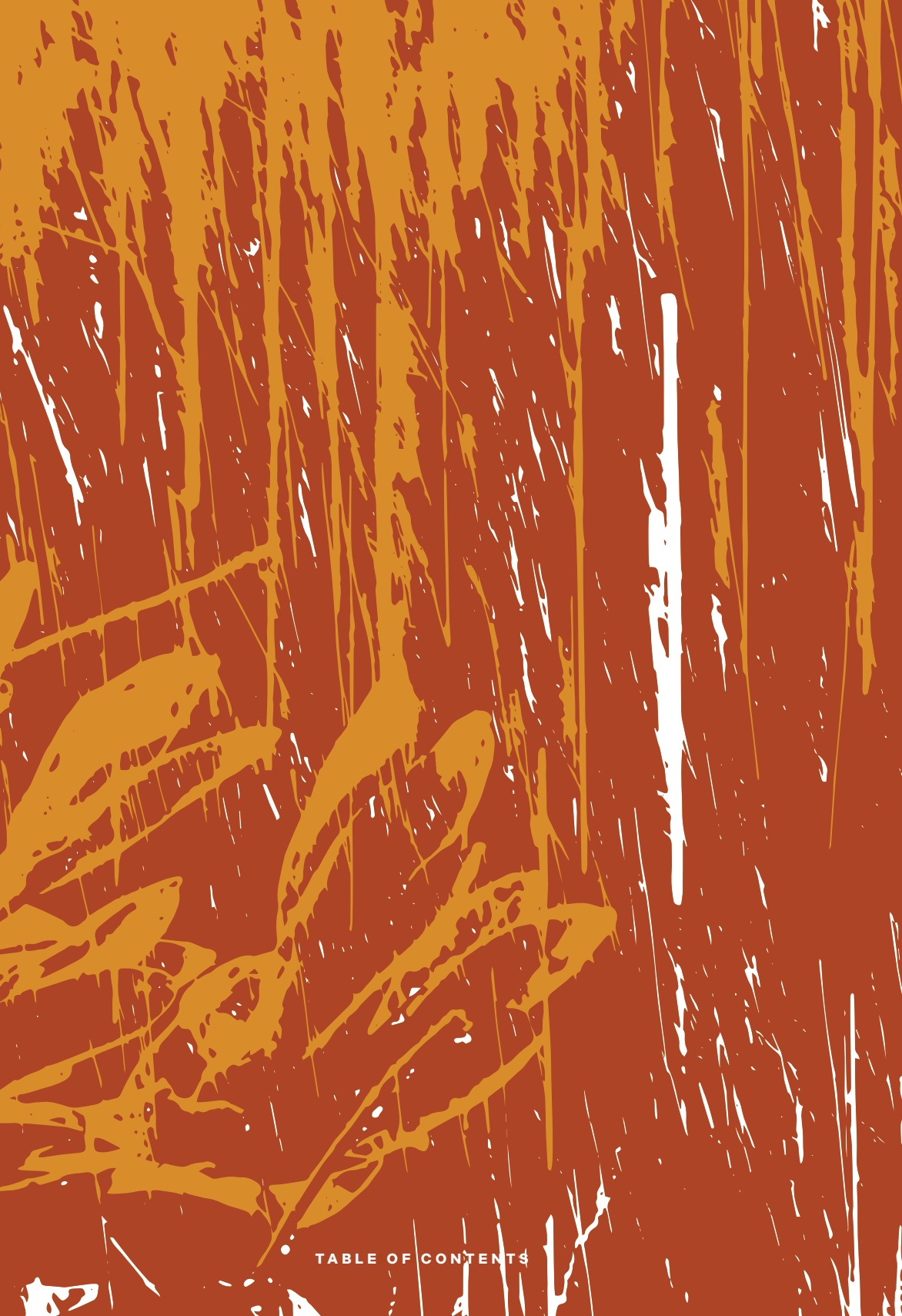


TABLE OF CONTENTS