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INDIGENOUS PEOPLES AND NEW PATHWAYS FOR SUSTAINABILITY IN AMAZONIA

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“We were not born to live in scarcity.”
Uitoto principle, Colombian Amazon

Indigenous Peoples, nature, and sustainable development

The relationship between Indigenous Peoples and nature is increasingly central to debates on sustainable development.¹ Far from being solely a cultural issue, this relationship has direct implications for ecosystem conservation, environmental stability, and natural resource management at a global scale.

Few regions illustrate this relationship as clearly as Amazonia. This vast ecological system not only harbors some of the world’s most important tropical forests but is also home to hundreds of Indigenous Peoples whose liveli-

¹ This chapter refers specifically to Indigenous Peoples, and not necessarily to local communities, following the recommendations of the United Nations Permanent Forum on Indigenous Issues, which has called for a clear distinction between Indigenous Peoples and local communities and warned against using a combined category that treats them as a single group. See more: CBD/WG8J/12/7—Recommendations from the United Nations Permanent Forum on Indigenous Issues to the Convention on Biological Diversity.

hoods, knowledge systems, and governance structures are closely tied to their territories. Understanding how these dimensions interact is essential for designing development and conservation policies that are both effective and sustainable.

This chapter examines how these relationships shape conservation, development policy, and territorial governance in practice. First, it describes the characteristics of Amazonian Indigenous Peoples and their ties to the territory. It then analyzes how this relationship has contributed to ecosystem conservation, as well as the key pressures affecting the ecosystem and the economic interests driving those pressures. Finally, the chapter explores emerging tools and innovations aimed at strengthening this relationship in the context of current sustainable development challenges.

Characteristics of Indigenous Peoples worldwide

Indigenous Peoples share several common features, including historical ties to their territories, distinct cultural identities, and governance systems that differ from those of modern states.² These characteristics are important for understanding why public policies are not always effective in Indigenous territories, particularly when Indigenous communities have not been directly involved in their design and implementation.³

The World Bank estimates that approximately 476 million Indigenous people live worldwide, representing about 6% of the global population. Indigenous Peoples live in more than 90 countries and tend to concentrate in territories with high ecological value, including tropical forests and other critical ecosystems.⁴ Indigenous Peoples occupy or use approximately one-quarter of the Earth's land surface, including 37% of natural areas.⁵ Areas with high levels of Indigenous cultural diversity also tend to overlap with regions of high biodiversity, underscoring the role of Indigenous Peoples in global conservation efforts.⁶

Amazonia illustrates these dynamics clearly, since the overlap between biological and cultural diversity is especially pronounced. The region contains not only some of the world's richest ecosystems, but also a high concentration of Indigenous Peoples whose livelihoods and governance systems are closely linked to these environments. Amazonia therefore offers an important context for understanding how conservation, territory, Indigenous Peoples, and development interact in practice.

² IDB (2006).

³ Indigenous territories are lands, waters, and natural resources that Indigenous Peoples have traditionally occupied, used, managed, or to which they have cultural, spiritual, and historical connections. Indigenous communities refer to specific local settlements, villages, or groups of Indigenous people living in a particular area.

⁴ World Bank (2020).

⁵ Fernández-Llamazares et al. (2024).

⁶ Gorenflo et al. (2012).

Amazonia and Indigenous Peoples⁷

Amazonia spans more than 6.7 million km² and is home to approximately 40% of the world's remaining tropical forests.⁸ Functioning as a major carbon sink, the region stores between 150 billion and 200 billion metric tons of carbon and is home to over 10% of global terrestrial biodiversity.⁹ This biome of global importance is shared by eight countries: Brazil, Colombia, Bolivia, Ecuador, Guyana, Peru, Suriname, Venezuela, and one territory, French Guiana.¹⁰

In addition to its exceptional biological diversity, Amazonia is characterized by remarkable cultural and linguistic diversity. Around 240 Indigenous languages have been identified across Amazonia, nearly 70% of them in Brazil.¹¹ These languages embody generations of accumulated knowledge and reflect the longstanding relationships Indigenous Peoples have developed with their territories and surrounding ecosystems, including species found nowhere else on the planet. Approximately 379 Indigenous Peoples inhabit Amazonia, while approximately 136 Indigenous groups remain in voluntary isolation, largely avoiding contact with broader society.¹²

These connections to territory also have important ecological implications. Indigenous territories play a fundamental role in the ecological integrity of Amazonia, including by helping maintain ecosystem connectivity. Together, they encompass nearly 2.4 million km², representing approximately 28.5% of the region (see figure 5.1).¹³ They also contain about 45% of the Amazon basin's remaining intact forests, underscoring their importance for forest connectivity, biodiversity, and ecosystem resilience.¹⁴

THE INEXTRICABLE RELATIONSHIP BETWEEN INDIGENOUS PEOPLES AND THE FOREST

Archaeological evidence indicates that Indigenous Peoples have inhabited Amazonia for at least 12,000 years.¹⁵ Rather than being ecosystems isolated from human intervention, Amazonian landscapes have historically been shaped by interactions between Indigenous communities and their environment. This longstanding relationship has fostered extensive knowledge of biodiversity, climate patterns, medicinal plants, as well as sustainable land and forest management practices. Embedded within the cultural, social, and governance systems of Indigenous Peoples, this knowledge represents an important resource for conservation and sustainable development in Amazonia.

7 This section provides a background of Indigenous Peoples in Amazonia and summarizes a fuller description of the topic available in the Inter-American Development Bank (IDB) report “Diversity, Development, and Conservation in Amazonia,” in “Amazonia: A Journey Toward Prosperity and Resilience” of which authors of this chapter were featured contributors. As this chapter draws on the IDB report, some text is directly drawn from the report and used for descriptive summarization purposes in this chapter. See Acioli et al. (2025).

8 WWF (2014); UNESCO (n.d.); World Bank (n.d.).

9 Leal Filho et al. (2025); WWF (n.d.).

10 World Bank (2023).

11 Acioli et al. (2025), 169.

12 Indigenous groups refer to different Indigenous populations in a general, descriptive, or comparative way; Ballesteros et al. (2025), 26.

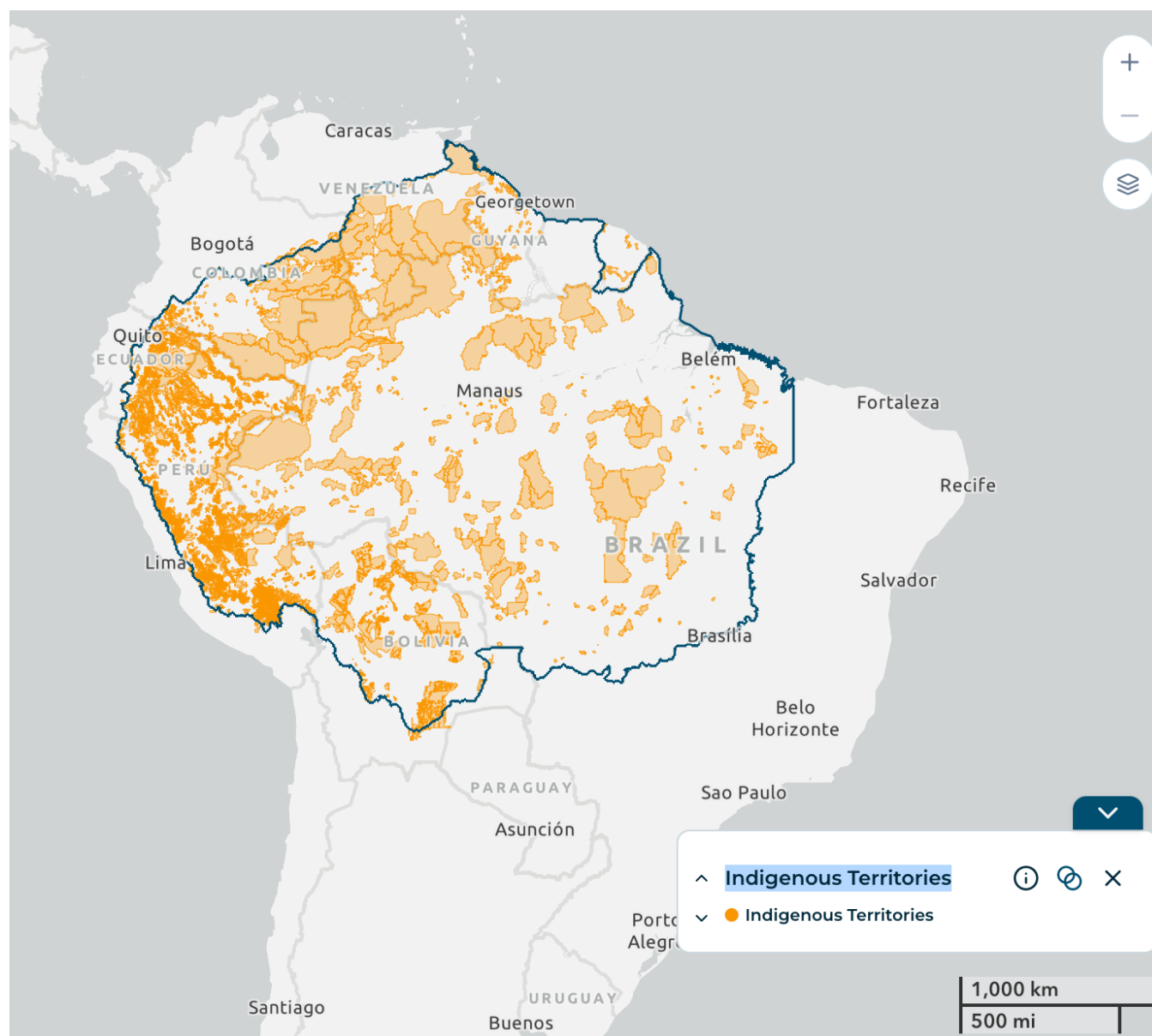
13 Bergamaschi, Fernandes, and Elacqua (2025), 122; RAISG (2023a).

14 FAO and FILAC (2021).

15 Nascimento et al. (2022); Neves et al. (2021).

FIGURE 5.1

Indigenous territories in Amazonia



SOURCE: IDB (n.d.-b).

Evidence shows that Indigenous territories maintain some of the highest levels of ecological integrity in the Amazon basin.¹⁶ Despite increasing pressures on land and natural resources, these territories consistently exhibit lower deforestation rates than surrounding areas.

In Ecuador, for example, a georeferenced assessment of lands enrolled in the Socio Bosque conservation incentive program found that 99% of Indigenous territories remained free from deforestation, even as surrounding areas experienced forest loss.¹⁷ These results point to Indigenous territorial governance as an important factor in maintaining forest cover, with conservation incentives potentially reinforcing existing territorial management systems.

Evidence from Peru points in the same direction. Research comparing different conservation governance systems has found lower levels of forest loss in Indigenous territories. One study examining nearly 3,000 land units between 2006 and 2011 found lower forest loss in Indigenous territories than in conventional protected areas.¹⁸ A second analysis covering the period from 2005 to 2021 reached similar conclusions regarding their effectiveness in limiting forest loss.¹⁹ These results add to the evidence that Indigenous governance can make a substantial contribution to forest conservation.

INDIGENOUS TERRITORIES AS STRATEGIC CARBON SINKS

Although deforestation dynamics in Indigenous territories vary according to local pressures—such as agricultural expansion, mining, and oil extraction—evidence shows that forests managed by Indigenous Peoples in the Amazon basin play an important role in global environmental regulation. Collectively, these territories function as significant net carbon sinks.

Evidence from the Amazon basin also highlights the contribution of Indigenous territories to reducing emissions and supporting economic activity with lower net emissions. An analysis covering nine countries found that, from 2001 to 2021, forests within Indigenous territories removed roughly 460 million metric tons of CO₂e from the atmosphere each year, while generating about 120 million metric tons in annual emissions.²⁰ This resulted in a net removal of approximately 340 million metric tons of CO₂e per year.²¹ By comparison, forests outside Indigenous territories experienced sufficiently high levels of deforestation to become net carbon emitters over the same period.

These outcomes are linked not only to lower rates of forest loss, but also to Indigenous governance systems, land-management practices, traditional livelihoods, and cultural values associated with the forest. Together, these factors contribute to preserving forest cover and maintaining ecological functions that support regional and global environmental stability (see figure 5.2).

16 MapBiomass (2021).

17 Zurita-Arthos and Cotacachi (2019).

18 Schleicher et al. (2017); Acioli et al. (2025), 173.

19 Negret et al. (2026).

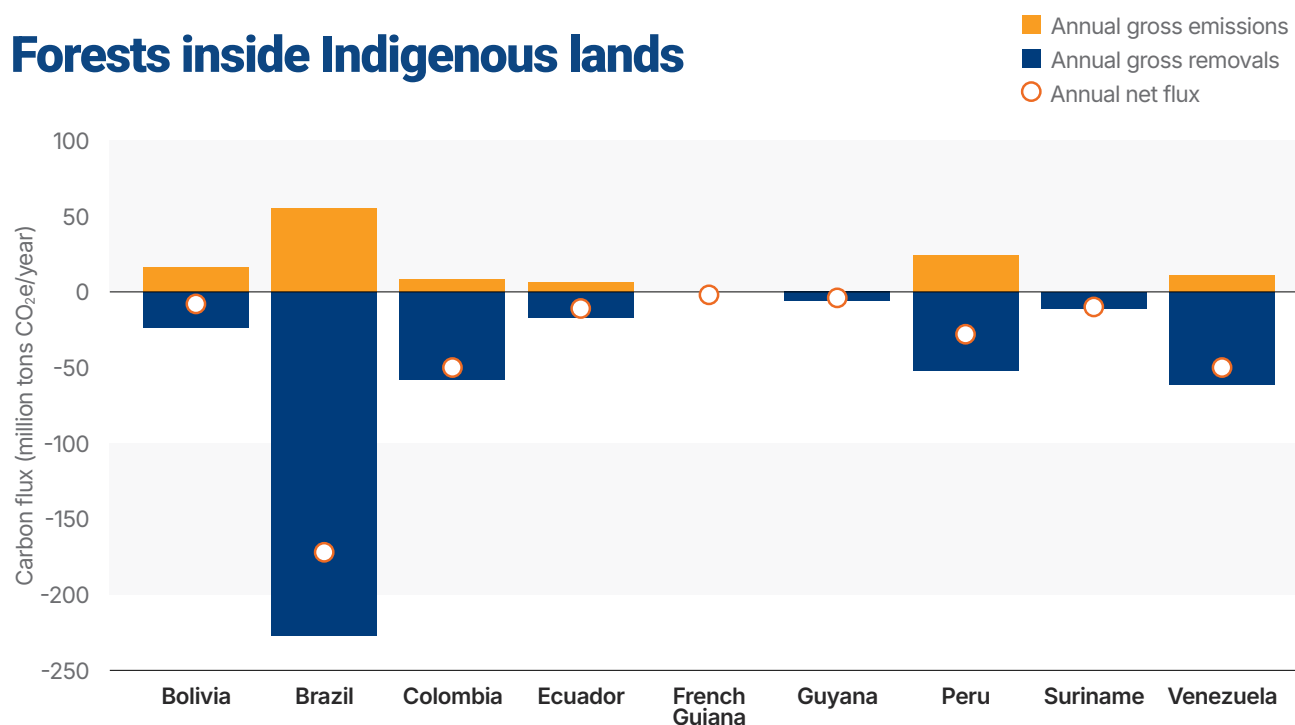
20 Veit, Gibbs, and Reytar (2023).

21 Ibid.

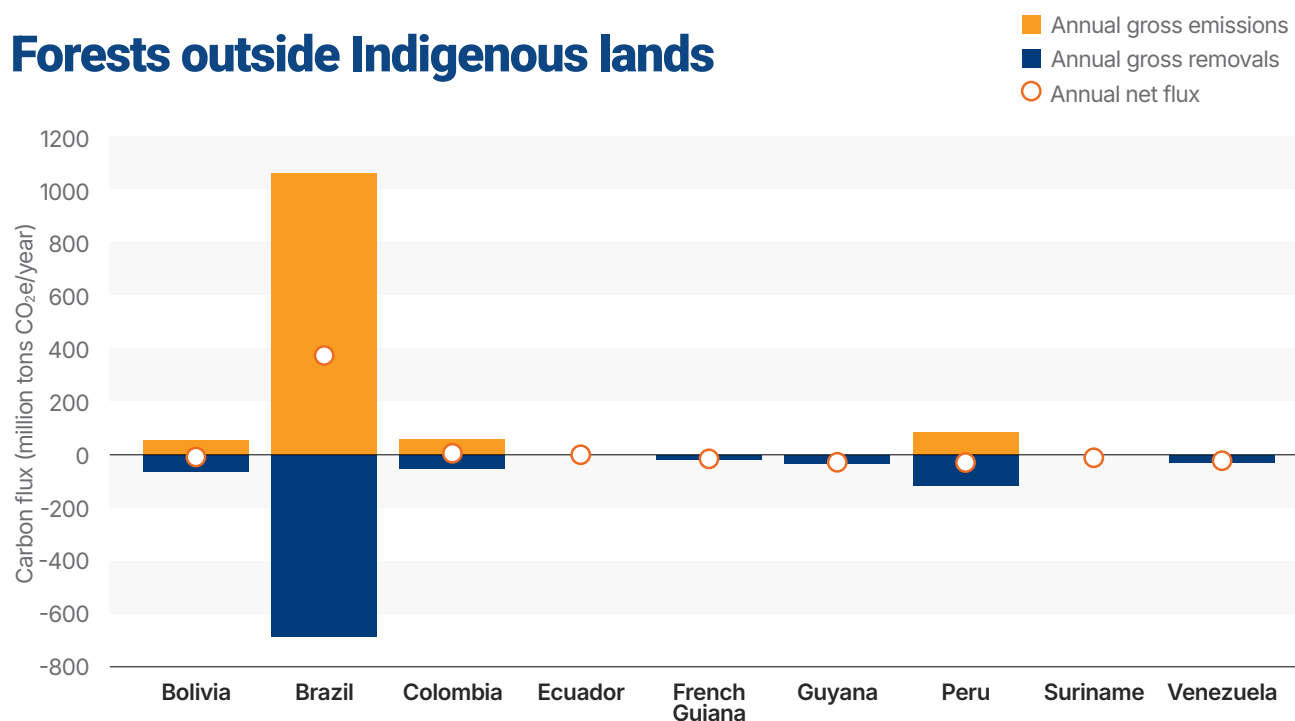
FIGURE 5.2

Carbon emissions and removals in Amazonia

Forests inside Indigenous lands



Forests outside Indigenous lands



SOURCE: Adapted from Veit, Gibbs, and Reynter (2023), licensed under CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>). Spelling, terminology, scale, and colors modified to conform to Brookings style.

INDIGENOUS WORLDVIEWS AND FOREST PROTECTION

For many Indigenous Peoples in Amazonia, the forest is not simply a source of material resources but a living and interdependent system encompassing plants, animals, water, soil, ecosystem functions, and intangible and spiritual dimensions of the territory. Disrupting these relationships can affect ecological conditions as well as community well-being and cultural continuity. These worldviews can shape norms of reciprocity, restraint, and responsibility in the use of natural resources. Where traditional knowledge, practices, and institutions continue to play a central role, such principles can be reflected in customary norms and governance arrangements that shape access to, use of, and management of natural resources and territory.

The Kichwa People of Sarayaku in Ecuador provide a clear example. Their concept of *Kawsak Sacha*, or the “Living Forest,” understands territory as a living entity constituted by relationships among humans, animals, plants, and spiritual beings.²² From this perspective, extractive activities can threaten not only the environment, but also territorial integrity and the foundations of collective life.²³ Elsewhere in Amazonia, similar principles are reflected in customary rules governing particular species and places. Among Tikuna, Yagua, and Cocama communities, for example, cultural understandings surrounding certain fish species such as the arapaima, or paiche (*Arapaima gigas*), have shaped practices and norms governing when and how the species can be harvested.²⁴ Similar customary principles can shape the use and management of other species.

Indigenous relationships with the forest are also evident in systems of medicinal knowledge. Species such as dragon’s blood (*Croton lechleri*), guayusa (*Ilex guayusa*), and cat’s claw (*Uncaria tomentosa*) are used in traditional practices related to health, healing, and well-being.²⁵ Among some peoples, ceremonial practices involving the ayahuasca vine (*Banisteriopsis caapi*) also form part of broader systems of healing, knowledge transmission, and engagement with the territory.²⁶ Because forest ecosystems sustain these medicinal resources and the knowledge associated with them, forest protection is closely linked to community health and cultural continuity.

These examples illustrate how Indigenous worldviews are translated into knowledge systems, institutions, customary norms, and concrete practices of territorial stewardship. Recognizing these approaches can inform conservation and development policies that strengthen, rather than replace, Indigenous governance.

This raises a central question: If Indigenous territories have proven effective in conserving forests, biodiversity, and critical ecosystem functions, why do they continue to face increasing pressures? Addressing this question requires examining the challenges affecting Indigenous Peoples in Amazonia, the political and economic dynamics that sustain these pressures despite evidence of effective Indigenous governance, and the emerging strategies and institutional instruments aimed at strengthening conservation and sustainable development efforts.

A central part of this challenge is implementation. Today, several countries are signatories to international instruments that protect the territorial rights of Indigenous Peoples, and most governments have public policies aimed at promoting conservation and sustainable development.²⁷ Yet the central challenge is no longer simply adopting rules or commitments but ensuring effective implementation.

22 Oikonomakis (2024).

23 Ibid.

24 Acioli et al. (2025).

25 de Albuquerque et al. (2025); Noriega et al. (2025); Marques et al. (2025).

26 Lenaerts (2006); Zuluaga Ramírez (2005).

27 Cotacachi (2020).

Coordinator of Indigenous Organizations of the Amazon Basin (COICA) and the rise of Indigenous governance in the Amazon

For thousands of years, Indigenous Peoples have lived in the Amazon with a simple but powerful conviction: No one should face scarcity in a place of such abundance. A saying from the Uitoto people captures this idea: “We were not born to live in scarcity; we were born to live in abundance.” The Amazon’s freshwater, forests, and extraordinary biodiversity have long provided the material, cultural, and spiritual foundations for a full life.

Today, that vision is increasingly at odds with reality. For more than a century, outside actors seeking rubber, gold, oil, timber, animal hides, and other natural resources have reshaped Amazonian ecosystems. These waves of extraction have also disrupted social structures, cultural practices, and Indigenous knowledge systems that for generations guided communities’ relationships with the forest, water, and biodiversity.

Consequently, the Amazon has often been understood through the priorities of outsiders interested in its resources, while Indigenous voices have been pushed to the margins of national and global debates. In response to this long history of exclusion, Indigenous leaders from across the Amazon basin came together in Lima, Peru, on March 14, 1984, to establish the Coordinator of Indigenous Organizations of the Amazon Basin (COICA). The organization was created to defend the territorial rights of Amazonian Indigenous Peoples, strengthen their political representation, and protect cultural continuity amid growing threats to the region.

Today, COICA brings together Indigenous organizations from Amazonian countries, including AIDESEP in Peru, APA in Guyana, CIDOB in Bolivia, COIAB in Brazil, CONFENIAE in Ecuador, FOAG in French Guiana, OPIAC in Colombia, ORPIA in Venezuela, and OIS in Suriname.* It has become one of the world’s most significant regional Indigenous organizations in terms of territorial representation, giving collective voice to more than 511 Indigenous Peoples across the Amazon basin.

Over the past four decades, COICA has helped Amazonian Indigenous Peoples speak for themselves in regional and global forums. Its work has strengthened Indigenous governance across countries and helped position the Amazon as essential to biodiversity conservation, environmental stability, and cultural survival.

COICA now plays an active role in international discussions on environmental and biodiversity governance, shaping global agendas and advancing Indigenous leadership as central to protecting the Amazon. In doing so, Indigenous Peoples are not only defending their place as the forest’s historic inhabitants; they are also asserting their role as strategic leaders in Amazonian governance and in global responses to environmental and ecological challenges.

SOURCE: Fany Kuiru Castro, General Coordinator, COICA. See more about COICA at <https://coicamazonia.org/quienes-somos/>.

*Asociación Interétnica de Desarrollo de la Selva Peruana (AIDESEP)
Amerindian Peoples Association (APA)
Confederation of Indigenous Peoples of Bolivia (CIDOB)
Coordination of Indigenous Organizations of the Brazilian Amazon (COIAB)
Confederation of Indigenous Nationalities of the Ecuadorian Amazon (CONFENIAE)
Fédération des Organisations Amérindiennes de Guyane (FOAG)
Organización Nacional de los Pueblos Indígenas de la Amazonia Colombiana (OPIAC)
Organización Regional de Pueblos Indígenas de Amazonas (ORPIA)
Organization of Indigenous People (OIS)

Threats to the Amazonian biome and the challenges facing Indigenous Peoples

Despite its global importance in regulating the water cycle, stabilizing the environment, and conserving biodiversity, Amazonia has become increasingly vulnerable to deforestation and ecosystem degradation. The combined pressures of agricultural and livestock expansion, the extraction of natural resources, illegal logging, and infrastructure development continue to accelerate forest loss across the region. According to the Monitoring of the Andes Amazon Program (MAAP), approximately 33.7 million hectares (83.4 million acres) of primary forest have been lost since 2002—an area larger than the state of New Mexico.²⁸ In addition, another 10.6 million hectares have been degraded by fires, intensifying pressures on Amazonian ecosystems and reducing their capacity to provide ecosystem services.²⁹ If current deforestation trends continue, several studies warn that significant parts of the Amazon could approach an ecological threshold, shifting within a few decades toward degraded ecosystems similar to tropical savannas and completely losing their capacity for regeneration.³⁰

AGRICULTURE AND LIVESTOCK

Agricultural expansion and livestock are among the main drivers of deforestation in the Amazon. Extensive livestock ranching, soybean and oil palm monocultures, and associated infrastructure have accelerated forest loss across Amazonian countries. According to MapBiomass Amazonia, between 1985 and 2022, nearly 80% of deforested areas in the Amazon basin were converted into pastureland, while another 14% was used for crop production.³¹ Likewise, a large share of fires recorded in the region occurs in areas previously deforested or degraded by agricultural and livestock activities, where fire is used to clear land for grazing and farming.³² Hence, many Indigenous territories face increasing territorial pressures, shrinking areas of traditional use, and impacts on livelihoods and food security.

MINING

Among the main drivers of Amazonian degradation is the expansion of illegal gold mining, one of the primary threats to Indigenous territories and protected areas. Studies by the Amazon Geo-Referenced Socio-Environmental Information Network (RAISG) and MAAP identified at least 49 sites affected by illegal mining across the Amazon basin, including 20 in Indigenous territories and 16 in protected areas.³³ Between 1985 and 2023, the area devoted to mining in the Amazon increased by more than 1,000%, while the region lost more than 88 million hectares of forest cover.³⁴

28 Finer et al. (2025).

29 Ibid.

30 Wunderling et al. (2026).

31 Ferreira (2026).

32 NASA Earth Observatory (2019).

33 RAISG (2023b).

34 MapBiomass Amazonia (2024).

Illegal gold mining generates severe socio-environmental impacts through mercury contamination of rivers and aquatic ecosystems that support the livelihoods of numerous Indigenous communities. Studies in Mundurucu communities in Brazil have found elevated levels of mercury in human hair samples, associated with both illegal mining activities and the consumption of contaminated fish.³⁵ Similar patterns have been documented across Amazonian countries, where prolonged exposure to methylmercury has been linked to neurological, cognitive, and developmental disorders, particularly among children.

ILLEGAL LOGGING

Illegal logging is one of the main illicit economies driving forest degradation in the Amazon and other tropical forests around the world. According to INTERPOL, it accounts for between 15% and 30% of global timber production, with some of the most severe cases concentrated in the Amazon basin.³⁶ INTERPOL has reported estimates indicating that illegal logging may account for up to 80% of logging activity in the Brazilian state of Pará and between 40% and 60% in Peru.³⁷

In addition to its environmental impacts, illegal logging affects Indigenous communities through the loss of traditional livelihoods, including hunting, fishing, subsistence agriculture, and the use of forest resources. It also increases pressure on Indigenous territories and areas of biocultural importance. Due to its illicit nature, illegal logging is frequently linked to criminal networks, land conflicts, corruption, and violence against Indigenous leaders and environmental defenders.

CHALLENGES FACING INDIGENOUS PEOPLES

The impacts of deforestation and the expansion of extractive activities in Amazonia extend beyond environmental degradation. For many Indigenous Peoples who depend directly on the natural resources of their lands and territories, the rapid loss of forests, rivers, and biodiversity threatens food security, livelihoods, and cultural survival.

At the same time, many Indigenous communities face longstanding conditions of poverty, marginalization, and limited state presence, reflected in insufficient access to health services, education, infrastructure, and sustainable economic opportunities. In Amazonia, at least 4.3 million people live in monetary poverty, with an average municipal poverty rate of approximately 54%.³⁸ These structural vulnerabilities are further intensified by related impacts—including floods, fires, ecosystem disturbances, and disease outbreaks—as well as by conflicts associated with agribusiness, mining, and illegal logging.

One of the most critical challenges facing Indigenous Peoples is the lack of land regularization, territorial titling, and effective protection of ancestral territories. Across large parts of Amazonia, many communities still lack full legal recognition of their lands, while others face overlapping mining, oil, forestry, and agro-industrial concessions.³⁹ An Inter-American Development Bank (IDB) study found that irregular land tenure, together with inconsistent law

35 Basta et al. (2021).

36 INTERPOL (2019), 12.

37 Ibid.

38 Bagolle, Costella, and Goyeneche (2023).

39 Quijano Vallejos et al. (2020).

enforcement and other enabling factors, facilitates land grabbing, illegal mining, selective logging, and related environmental crimes.⁴⁰ Ultimately, insecure land tenure can weaken communities' capacity to exercise territorial governance and manage natural resources sustainably. Consistent with the conservation outcomes noted earlier, legal recognition is a critical factor in maintaining these results.⁴¹

Political economy of Amazonian degradation

Research on Amazonian development highlights how economic incentives and unequal bargaining power can concentrate benefits among better-resourced actors, while Indigenous communities and ecosystems may bear a disproportionate share of social and environmental costs. At the same time, public institutions may face significant capacity constraints in regulating and protecting the Amazon, particularly where enforcement resources are limited, governance is weak, or short-term economic priorities compete with territorial and environmental protection.

Likewise, evidence shows that less than 1% of international environmental finance between 2011 and 2020 was directed to Indigenous communities for land tenure and forest management.⁴² This gap underscores the distance between global commitments and the financial resources needed to secure Indigenous territorial governance in practice.

EXTRACTIVE RENTS AND THE PRESSURE ON INDIGENOUS LANDS

Illegal and quasi-legal extractive activities generate far higher returns than legal, sustainable, and small-scale economic activities. This asymmetry creates strong incentives for the occupation, transformation, and control of Indigenous territories and areas of high conservation value.

The World Bank and several regional studies have noted that rising international gold prices have driven the rapid expansion of illegal mining in the Amazon, particularly in Brazil, Colombia, and Peru. For example, in Peru, according to the Financial Intelligence Unit (UIF), reports identifying illegal mining as a possible predicate offense for money laundering involved approximately \$8.21 billion between 2012 and 2020, representing nearly 58% of the total value reported during that period.⁴³

Over the past decade, global demand for critical minerals has grown rapidly, driven by the expansion of renewable energy and related technologies. According to the International Energy Agency, the global market for critical minerals is currently valued at more than \$300 billion and could more than double by 2035.⁴⁴ This rising demand for critical minerals exposes a central contradiction: while international frameworks increasingly promote the protection

40 Lesenfants et al. (2024).

41 Stevens et al. (2014).

42 Hatcher et al. (2021).

43 Observatorio de Minería Ilegal (2024); SBS (2022).

44 Ionova (2026).

of Indigenous territories, growing demand for minerals used in renewable energy systems and related technologies is creating new extractive pressures on Indigenous lands where many of the minerals needed for that transition are located.⁴⁵ Brazil occupies a strategic position in this context, holding between 19% and 23% of the world's known rare earth reserves—the second largest share after China—and accounting for approximately 93% of global niobium production in 2025.⁴⁶ Niobium is a key mineral used in the production of lightweight, high-strength steels for energy infrastructure, gas pipelines, and aircraft engines.⁴⁷ Growing demand for these minerals is intensifying extractive pressures on the Brazilian Amazon, adding to existing pressures associated with gold and other mineral extraction.

Similar dynamics can be observed in the expansion of agribusiness, cattle ranching, and deforestation, driven by growing domestic and international demand for agricultural products, meat, timber, and other commodities. These markets create strong economic incentives for the occupation and transformation of Indigenous territories, particularly in areas with limited state presence.⁴⁸ Across large parts of the Amazon frontier, where development opportunities and access to formal economies remain limited, these activities also serve as sources of income for many Indigenous communities and rural populations, albeit within contexts marked by deep social inequalities.⁴⁹ As a result, commercial interests linked to global supply chains and export markets often exert greater political, institutional, and economic influence than environmental conservation goals and the protection of Indigenous rights.

ORGANIZED CRIME

The high profits associated with extractive industries, combined with limited state presence and the geographic isolation of large parts of Amazonia, have facilitated the expansion of criminal organizations linked to illegal mining, drug trafficking, and illegal logging.⁵⁰ These networks can control natural resources and logistics routes and may deepen local dependence on informal or illicit economies where viable development alternatives are limited.

Violence against environmental and territorial defenders remains disproportionately concentrated in Amazonia. According to Global Witness, more than one-fifth of the 177 murders of environmental defenders recorded worldwide in 2022 occurred in the Amazon region, where at least 39 people were killed, including 11 Indigenous persons.⁵¹ These figures reflect the growing intensity of conflicts associated with extractive activities and illicit economies, as well as the vulnerability of communities involved in protecting Amazonian forests. In this respect, the expansion of organized crime in Amazonia cannot be understood solely as a security challenge, but also as an expression of broader political-economic dynamics linked to territorial inequality, economic exclusion, weak governance, and competition over strategic natural resources.

45 Owen et al. (2023).

46 Ionova (2026); U.S. Geological Survey (2026), 135.

47 Ionova (2026).

48 Quijano Vallejos et al. (2020).

49 Hanusch (2023).

50 UNODC (2023); Libertun de Duren et al. (2025).

51 Global Witness (2023).

LAND TITLING

Land titling is one of the main priorities for Indigenous Peoples in Amazonia. However, progress in these processes remains limited due to technical, administrative, and institutional constraints, as well as complex economic and territorial dynamics associated with access to and use of strategic natural resources. From this perspective, the recognition and protection of Indigenous territories can come into tension with extractive activities and economic expansion, particularly in areas under strong mining and agro-industrial pressure.

In some contexts, competing political, economic, and territorial priorities can delay or weaken processes for recognizing and titling Indigenous lands.

In practice, territorial security does not depend solely on legal recognition or formal land titling. Many Indigenous territories remain vulnerable to invasions, illicit economies, and extractive pressures, while effective protection continues to be limited in many Amazonian contexts. For example, impact assessments of Ecuador's Socio Bosque conservation incentive program show that several Indigenous communities, despite having formal land recognition, continue to seek additional protection mechanisms against invasions and illegal activities.⁵² These dynamics illustrate that, although titling is fundamental, it does not guarantee effective territorial security in the face of growing economic pressures on Amazonia. Therefore, territorial security requires tangible mechanisms for monitoring, control, and territorial governance, as well as sustained institutional capacity and financial investment.

Furthermore, decisions regarding land titling, land-use planning, and the recognition of collective rights are often shaped by political, economic, institutional, and territorial development priorities. A clear example is the case of Indigenous Peoples in voluntary isolation. Protecting their territories requires restricting outside access, which can conflict with economic interests seeking access to areas of high strategic and extractive value. For example, the ancestral territories of the Waorani Nation of Ecuador have historically been exposed to pressures linked to oil expansion and extractive activity in the Ecuadorian Amazon.⁵³ As a result, debates over free, prior, and informed consultation, territorial recognition, and the protection of Indigenous Peoples reflect persistent tensions between strategic use of natural resources and the territorial rights of Indigenous Peoples.

DIVERSITY AMONG AMAZONIAN INDIGENOUS PEOPLES

Amazonia is home to more than 500 Indigenous Peoples with highly diverse sociocultural structures, languages, governance systems, levels of market integration, and territorial conditions.⁵⁴ Not all Indigenous communities face the same threats or possess the same institutional capacities. Some have more secure land tenure and well-established organizational structures, while others have only partial or insecure territorial rights and face limited state presence.

There are also significant differences in proximity to roads, urban centers, and extractive frontiers, including mining, hydrocarbons, logging, and agricultural expansion. These factors directly influence levels of territorial pressure, conflict, and exposure to illicit economies. Against this background, one of the main challenges for governments is to avoid one-size-fits-all approaches that treat Indigenous Peoples as a uniform category. Public policies designed without effective community participation and without considering local differences may prove ineffective or even exacerbate territorial and social tensions.

52 Perafán and Pabón (2019); Arriagada et al. (2018).

53 IACHR (2019); Scazza and Nenquimo (2021).

54 COICA (n.d.).

Emerging strategies and institutional innovations in Amazonia

In response to the multiple drivers of Amazonian degradation, new strategies and institutional approaches are emerging to transform traditional development models in the region. These include efforts to strengthen Indigenous territorial governance, new environmental finance and direct financing mechanisms, and Indigenous-led bio-economy approaches linked to conservation and sustainable development.

STRENGTHENING INDIGENOUS TERRITORIAL GOVERNANCE

In Indigenous territories, positive conservation outcomes are often rooted in traditional governance systems that view natural resources not only as economic assets but also as vital to livelihoods, social organization, and cultural identity. Therefore, public policies, institutional strategies, and development programs increasingly recognize the role of Indigenous governance and support its strengthening, particularly in land-use planning, environmental monitoring, institutional capacity building, and the consolidation of self-governance systems.

Several initiatives from the region show that incorporating digital and geospatial tools into community monitoring systems can strengthen territorial surveillance, improve the detection of illegal activities, and enhance transparency in environmental management. An impact assessment conducted in Amazonian regions of Ecuador and Peru found that community monitoring supported by advanced technologies significantly increased the detection and reporting of environmental liabilities, including oil spills, compared with control groups.⁵⁵ In Ecuador, these findings contributed to the incorporation of specific provisions on community monitoring into the Organic Law on the Special Amazonian Territorial Circumscription.⁵⁶

Furthermore, evidence suggests that technology can be integrated with traditional knowledge systems without undermining Indigenous cultural identity. The Kara Solar project financed through the IDB's Amazonia Forever program, for example, promoted river transportation systems powered by renewable energy for the Achuar Indigenous Nation in the Ecuadorian Amazon and has been recognized as a model for co-production of knowledge and technology between Indigenous communities and external partners.⁵⁷ Together, these experiences point to a gradual shift away from approaches focused narrowly on conservation and toward models grounded in territorial governance, Indigenous participation, and locally rooted development.

These initiatives have also strengthened the technical and negotiating capacities of Indigenous organizations in national and international decisionmaking forums. In recent years, Indigenous organizations have gone from having a limited presence in high-level global forums—such as the Conferences of the Parties (COP)—to exerting growing influence in international debates on environment, biodiversity, and development. This process has been supported by multilateral organizations, governments, nongovernmental organizations, and international cooperation programs that have expanded funding, technical assistance, and opportunities for direct participation for Indigenous Peoples and local communities.

⁵⁵ International Initiative for Impact Evaluation (2020).

⁵⁶ Ibid.

⁵⁷ Vila-Viñas, Crespo, and Martens (2020); see more on the Kara Solar project at <https://karasolar.com/our-story-1>.

For example, at the 16th Conference of the Parties (COP16) to the Convention on Biological Diversity (CBD), held in Cali, Colombia, in 2024, parties agreed to establish the Cali Fund to channel resources derived from the use of genetic resources toward biodiversity conservation and support for Indigenous Peoples and local communities.⁵⁸ This reflects not only the stronger institutional and governance capacity of Indigenous organizations, but also their growing ability to influence and directly shape global financing and environmental governance mechanisms that are better aligned with Indigenous Peoples' priorities, ways of life, and knowledge systems.

NEW FINANCIAL MECHANISMS

Several financial mechanisms aimed at conservation and emissions reduction, including payments for environmental services (PES) and Reducing Emissions from Deforestation and Forest Degradation in developing countries (REDD+), have faced challenges related to governance, benefit sharing, and long-term financial sustainability.⁵⁹ In many cases, these programs were designed primarily to maximize environmental outcomes, while social, territorial, and institutional dimensions affecting Indigenous Peoples were treated as secondary considerations or co-benefits. In some contexts, this approach limited local ownership, long-term sustainability, and the effective strengthening of Indigenous territorial governance.

Likewise, questions have been raised about the additionality of some programs, as many Indigenous territories keep forests standing even without financial incentives because of the forests' intrinsic value to livelihoods, social organization, and cultural identity.

In response, new financial mechanisms combine environmental objectives with institutional strengthening, poverty reduction, Indigenous participation, bioeconomy initiatives, and development with identity. For example, programs such as Socio Bosque in Ecuador, Bolsa Floresta in Brazil, and the Low Carbon Development Strategy in Guyana have combined conservation incentives with social investment, organizational strengthening, and support for sustainable livelihoods.⁶⁰

Concurrently, larger-scale financial instruments are emerging to mobilize capital toward both environmental and social objectives. For instance, the Amazonia Bond Issuance Guidelines, promoted by the IDB and the World Bank, seek to channel resources toward conservation, forest restoration, bioeconomy initiatives, and sustainable development in Amazonia.⁶¹ Unlike traditional green bonds, they combine environmental, social, and governance objectives, including social safeguards and Indigenous participation. The guidelines for their issuance were developed through consultations with governments, Amazonian Indigenous organizations from eight countries, financial institutions, and civil society organizations, and they include criteria related to transparency, participation, and benefit sharing.⁶²

58 CBD (2024).

59 See more on REDD+ at <https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd>; Nyengere et al. (2026); Le et al. (2024).

60 See more on Socio Bosque at <https://doi.org/10.18235/0001451> and <https://www.ambienteyenergia.gob.ec/ambiente/programa-socio-bosque/>; see more on Bolsa Floresta at <https://www.amazonfund.gov.br/en/projeto/Forest-Assistance-Program-/>; see more on the Low Carbon Development Strategy at <https://lcds.gov.gy/>.

61 Hajek, Amoa, and Killeen (2025).

62 Ibid.

In addition, the Amazon Biocorridor Fund is a recent debt-for-nature swap mechanism launched by Ecuador with support from the IDB, the U.S. International Development Finance Corporation, The Nature Conservancy, and other financial partners.⁶³ The initiative is expected to channel approximately \$460 million toward forest and wetland conservation, strengthening protected areas, protecting rivers, and supporting Indigenous Peoples and local communities.⁶⁴ By design, this instrument addresses the limitations of previous models by integrating conservation with Indigenous governance, local development, and sustainable livelihoods, reflecting a broader shift toward more integrated approaches to innovative finance.

Another emerging global initiative launched at COP30 is the Tropical Forest Forever Facility (TFFF). Led by Brazil, the TFFF aims to provide countries with stable, long-term, results-based financing for the verified conservation of nearly 1 billion hectares of tropical and subtropical broadleaf forests across 70 countries.⁶⁵ Its principal innovation lies in combining public and philanthropic contributions with private capital and using investment returns to finance conservation payments. The facility also commits to directing at least 20% of its resources to Indigenous Peoples and local communities living in these high-value ecosystems.⁶⁶ By the end of 2025, approximately \$6.7 billion had been pledged toward a total capitalization target of \$125 billion.⁶⁷

INSTITUTIONAL INNOVATIONS AND DIRECT FUNDING

Recent changes in Amazonian governance have also been accompanied by institutional innovations within multilateral organizations and international financing mechanisms. In recent decades, institutions such as the IDB have progressively incorporated specific policies, safeguards, and mechanisms for engagement with Indigenous Peoples, largely in response to the growing advocacy and participation of Indigenous organizations. This approach has encouraged more direct forms of dialogue, consultation, and participation that extend beyond minimum compliance with environmental and social safeguards and standard project management procedures.

It has also contributed to the development of financing and cooperation mechanisms with greater Indigenous participation in setting priorities and in program implementation and monitoring, gradually strengthening direct representation, territorial governance, and the institutional capacities of Amazonian Indigenous organizations.

This procedure is reflected in recent initiatives such as the IDB's Amazonia Forever program, in which Indigenous Peoples and their organizations moved from a primarily consultative role to more direct participation in setting priorities related to the bioeconomy, finance, territorial monitoring, and environmental governance.⁶⁸ The program explicitly incorporated the inclusion of Indigenous Peoples as a cross-cutting priority and developed direct financing mechanisms in partnership with Indigenous organizations such as COICA and other Amazonian organizations.⁶⁹

63 Fondo Biocorredor Amazónico (n.d.).

64 IDB (2024).

65 Tropical Forest Forever Facility (n.d.).

66 Ibid.

67 UNFCCC (2025); see more on TFFF at <https://tfff.earth/>.

68 IDB (n.d.-a).

69 Ibid.

The IDB and COICA's Amazonia for Life Fund, for example, was designed to finance bioeconomy initiatives developed and implemented directly by Indigenous organizations, reducing reliance on external technical intermediaries.⁷⁰ Mechanisms of this kind respond to longstanding demands from Indigenous Peoples for more direct access to international financing and seek to address persistent barriers to financial inclusion.⁷¹

70 See more on the Amazonia for Life Fund at <https://www.amazoniaforlife.fund/>.

71 COICA (2021).

BOX 5.2

Institutional innovation at the Inter-American Development Bank (IDB)

"In 2023, the Inter-American Development Bank's Amazonia Forever program launched MINGA, an institutional initiative aimed at strengthening direct financing, participation, and self-determination among Amazonian Indigenous Peoples.

The initiative is structured around three main components. The first is the MINGA team itself, composed primarily of Indigenous professionals working within the IDB Amazonia Forever Coordination Unit who support Indigenous, Afro-descendant, and traditional community organizations in identifying priorities, co-designing projects, and navigating approval, implementation, and monitoring processes. At the operational level, the initiative also promotes the hiring of Indigenous consultants with knowledge of local contexts, languages, and territorial governance systems.

The second component is the incorporation of Indigenous organizations as IDB implementing agencies. This approach seeks to strengthen technical, administrative, and operational capacities so that these organizations can manage resources from multiple donors without relying on external technical intermediaries.

The third component is continuous and proactive dialogue with grassroots Indigenous organizations. This dialogue goes beyond the formal consultation processes required by law or policies, or by minimum safeguard standards and instead seeks to create meaningful spaces for participation throughout the project cycle. The objective is to support the development of joint solutions, agreements, and adjustments while ensuring that initiatives remain aligned with the priorities, needs, and timelines of Indigenous organizations themselves. These projects are financed primarily through two Amazonia Forever funds. The first is the Amazon Bioeconomy and Forests Management Multi-Donor Trust Fund (AMDTF), supported by Germany, Italy, the Netherlands, Switzerland, and the United Kingdom. The second is the Amazon Bioeconomy Fund, a regional program financed by the Green Climate Fund. Although the initiative is recent, it has begun to support direct financing and capacity-building arrangements with Indigenous organizations."^{*}

In 2024, the Interethnic Association for the Development of the Peruvian Rainforest (AIDESEP), which represents more than 2,439 Indigenous communities, became the first Indigenous organization to manage \$1 million in direct financing for the implementation of bioeconomy projects and Indigenous life plans in the Peruvian Amazon. Similarly, in 2025, comparable financing initiatives were approved for organizations such

*Drawn from Acioli et al. (2025) in Galindo, Giles Álvarez, and Rocha (2025).

as the Confederation of Indigenous Nationalities of the Ecuadorian Amazon (CONFENIAE) and the Coordination of Indigenous Organizations of the Brazilian Amazon (COIAB). By 2027, direct financing mechanisms are expected to benefit the main Indigenous organizations across the eight Amazonian countries.

The process faces some challenges, including ongoing consultation processes, continuous operational training, and mechanisms for addressing complaints and grievances. However, one of its main outcomes has been to strengthen trust, local ownership, and project sustainability, while also demonstrating the capacity of Indigenous organizations to manage large-scale financial resources without external intermediation.

This approach is consistent with the IDB's efforts to strengthen engagement with Indigenous Peoples as strategic partners and to expand appropriate direct-financing mechanisms for Indigenous organizations and communities.

The process has also generated important institutional lessons for the IDB, particularly regarding the need to make operational procedures more flexible and adaptable to better support the design and implementation of projects developed in partnership with Indigenous organizations.

SOURCES: Acioli et al. (2025) as seen in Galindo, Giles Álvarez, and Rocha (2025); Forest Peoples Programme (n.d.); IDB (n.d.-c); the IDB project database can be found at <https://www.iadb.org/es/project-search>.

BIOECONOMY AND INDIGENOUS ECONOMY

Various conceptual frameworks developed by Amazonian Indigenous Peoples are increasingly being incorporated into debates on conservation and sustainable development in the region. One of the most relevant is the concept of the Indigenous economy. While contemporary approaches to the bioeconomy emphasize the sustainable use of biological resources to promote innovation and economic activity, the Indigenous economy complements these approaches by incorporating collective and community well-being, as well as the protection of ecosystems and territories that sustain Indigenous livelihoods. In this way, it offers a broader perspective on sustainability.

The economies of Amazonian Indigenous Peoples are closely linked to traditional livelihoods based on forests, biodiversity, land, and other natural resources. They also depend on traditional knowledge systems and skills related to hunting, fishing, gathering, agriculture, and craftsmanship, as well as community organization and local commercial networks. Many Indigenous communities produce food, fibers, oils, non-timber forest products, and other bioproducts used in sectors such as food production, pharmaceuticals, cosmetics, tourism, and construction. Their territories also deliver ecosystem services of local and global significance, including biodiversity conservation, carbon sequestration, landscape preservation, and water regulation.

In this context, the Indigenous economy can be understood as a system grounded in the traditional knowledge, practices, values, and principles that shape Indigenous communities' relationships with ecosystems and the sustainable use of biological resources. From this perspective, Indigenous economies may offer important opportunities to promote more sustainable development pathways in Amazonia and diversify the region's prevailing economic model.

Both the bioeconomy and the Indigenous economy are increasingly viewed as approaches with significant potential for promoting sustainable development in Amazonia. For example, a World Resources Institute analysis suggests that the Brazilian Legal Amazon could achieve stronger economic outcomes under a low-carbon development pathway. By 2050, GDP could reach about \$268 billion if emissions and deforestation are brought under control, compared with \$260 billion under the current economic model (2020 values), a difference of roughly \$8 billion.⁷² The study also estimates that this pathway could reduce emissions by 94% and create around 312,000 jobs.⁷³ Together, these projections suggest that a bioeconomy-based development model could deliver economic gains while also reducing emissions and expanding employment opportunities.

Implications for sustainable development priorities

The evidence presented in this chapter invites a broader reflection on the role of Indigenous Peoples and their governance systems in the long-term global environment and sustainable development agenda. Indigenous territories maintain high levels of ecosystem integrity, store carbon, protect biodiversity, and regulate water systems, generating benefits that extend well beyond Amazonia and carry global significance. Indigenous territorial governance therefore has direct implications for sustainable development priorities, particularly related to environment stability, terrestrial ecosystems and biodiversity conservation, reduced inequalities, water security, and institutional governance.

Achieving these objectives, however, requires a fundamental shift in how global frameworks engage with Indigenous Peoples. A central issue for a long-term agenda is whether these frameworks can move beyond treating Indigenous Peoples primarily as “vulnerable populations” or “beneficiaries of environmental policies,” and instead recognize them as strategic governance partners with decisionmaking capacity and direct fiduciary authority. In practice, Indigenous Peoples are among the actors best positioned to implement tangible measures for ecosystem protection, territorial governance, and long-term sustainability.

A second implication concerns the need to strengthen governance models that more effectively integrate conservation and development objectives. In the Amazon—and in other regions of the world—pressures associated with extractive economies, global markets, organized crime, and weak institutions require strategies that connect conservation with social inclusion, territorial governance, and sustainable development. In this context, emerging mechanisms related to finance for the environment, direct financing, and Indigenous economies should be understood not only as environmental instruments, but also as strategies for strengthening ecological and socioeconomic resilience, institutional capacity, and territorial stability.

This shift also has implications for the institutions that finance and support implementation. Effective implementation will require institutional change within financing agencies themselves. Many existing procedures, including fiduciary requirements, safeguards, procurement rules, reporting systems, and administrative timelines, were designed primarily for governments, large nongovernmental organizations, or consulting firms. Consequently, they often create technical and operational barriers to more direct engagement with Indigenous organizations. If Indige-

⁷² Nobre et al. (2023), 23.

⁷³ Ibid., 15.

nous organizations are to serve as meaningful implementation partners, financing agencies will need to adapt their processes to Indigenous Peoples' territorial, institutional, and cultural realities. Too often, the burden of adaptation has fallen on Indigenous Peoples, who are expected to fit into externally designed systems. The IDB's work in the Amazon region shows that a different approach is possible: one based on co-design, institutional strengthening, technical support, more appropriate financing mechanisms, and implementation arrangements grounded in Indigenous governance.

Implementation, however, remains a central challenge. Although global frameworks, national laws, and public policies already incorporate broadly accepted principles regarding the importance of protecting Indigenous territories, effective enforcement at the local level remains weak. Moreover, several sustainable development priorities continue to be pursued in sectoral and fragmented ways, creating the risk of tensions or contradictory outcomes, as illustrated by some clean energy adoption efforts that produce unintended impacts in Indigenous territories. Accordingly, the implementation of conservation and development measures requires stronger institutional coordination, sustained territorial monitoring, and clearer accountability mechanisms.

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