

Chapter 16



Science Panel for the Amazon (SPA)

WG 6: Policies in the Amazon and their impacts

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Past and current state of conservation policies, protected areas, and indigenous territories

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ACRONYMS AND ABBREVIATIONS

AIDSESP: Asociación Interétnica de Desarrollo de la Selva Peruana

CIDOB: Confederación de Pueblos Indígenas del Oriente Boliviano

COIAB: Coordenação das Organizações Indígenas da Amazônia Brasileira

CONFENIAE: Confederación de Nacionalidades Indígenas de la Amazonía Ecuatoriana

CBD: Convention on Biological Diversity

CNPPA: Commission on National Parks and Protected Areas

WCPA: World Commission on Protected Areas

FPIC: Free, Prior and Informed Consent

FUNAI: Fundação Nacional do Índio

IBAMA: Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis

ICMBio: Instituto Chico Mendes de Conservação da Biodiversidade

INPARQUES: Instituto Nacional de Parques (Venezuela)

IPBES: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IUCN: International Union for the Conservation of Nature

IT: Indigenous Territory

PA: Protected Area

PNA: Protected Natural Area

ILO: International Labour Organization

OAS's ICHR: The Organization of American States' Interamerican Commission for Human Rights

OECM:: Other effective area-based conservation measures

OPIAC: Organización Nacional de los Pueblos Indígenas de la Amazonía Colombiana

PADDD: Protected areas downgrading, downsizing and degazettement

PIAV: Pueblos indígenas en aislamiento voluntario

PIACI: Pueblos indígenas en aislamiento y contacto inicial

POWAP: Programme of Work on Protected Areas

RAISG: Red Amazónica de Información Socioambiental Georreferenciada

REDPARQUES: Red Latinoamericana de Cooperación Técnica en Parques Nacionales, otras Áreas Protegidas, Flora y Fauna Silvestres

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RDS: Reserva de Desenvolvimento Sustentável

RESEX: Reserva Extrativista

SPI: Serviço de Proteção Indígena

SNUC: Sistema Nacional de Unidades de Conservação (Brazil)

SNAP: Sistema Nacional de Áreas Protegidas (Ecuador)

SINANPE: Sistema Nacional de Áreas Naturales Protegidas por el Estado (Peru)

SINAP: Sistema Nacional de Áreas Protegidas (Colombia)

WWF: World Wildlife Fund

ZITT: Zona Intangible Tagoeri Taromena

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1 **KEY MESSAGES**

- 2 ● Including indigenous territories, 50% of the Amazon basin is under some type of
3 recognized or legal protection figure, showing the great potential of the Amazon to
4 conserve and manage vital ecological connectivity.
- 5 ● Raising the commitment of countries with respect to the protection of biodiversity
6 through area-based strategies (previously Aichi Target 11) to 30% in marine and
7 terrestrial areas of the Earth by 2030, presents an opportunity to position the
8 contribution made by indigenous territories to the protection of biodiversity and to
9 consolidate a vision of safeguarding macro-regional connectivity in the Amazon.
- 10 ● ITs and PNAs and the people that live in them have contributed significantly to
11 maintaining forests intact and serve as buffers to emissions from forest loss compared
12 to regions outside their borders.
- 13 ● Rates of deforestation are on the rise across the region, putting ITs and PNAs under
14 renewed pressure.

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1 **ABSTRACT**

2 This chapter is focused on the recent historical processes (since the 60s) of two types of
3 management units that are cornerstones of the Amazon conservation: Protected Areas (PA)
4 and Indigenous Territories (IT). The historical account is presented from the perspective of the
5 development and institutionalization of the National Systems of Protected Areas or
6 Conservation Units. For its part, the recognition of IT in the Amazon countries, as well as the
7 titling or regularization of these territories are analyzed here in relation to the periods of
8 implementation of state policies that determined the occupation of the Amazon space, land use
9 changes, and demographic composition in these areas. Both in the case of PA and IT, a
10 summary of the current coverage of different types of PA categories and of recognized and
11 unrecognized IT is provided.

12 This chapter also sheds light on other management figures that have been developed to
13 explicitly include the presence of traditional indigenous and non-indigenous communities,
14 recognizing their right to the sustainable use of forest resources in their settlement, and
15 discusses the role of ecological connectivity as a conservation objective and examples of
16 landscape-scale conservation initiatives at the watershed level.

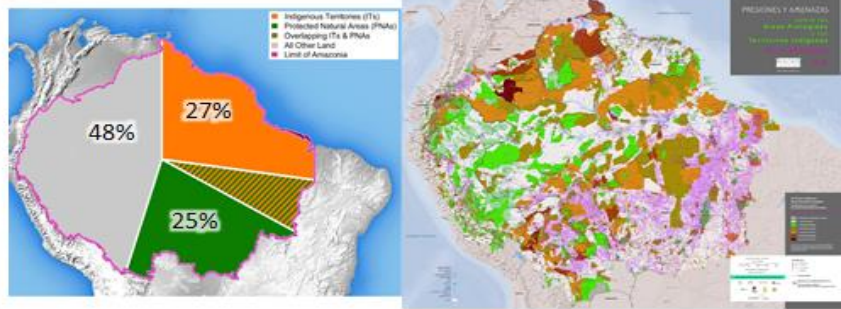
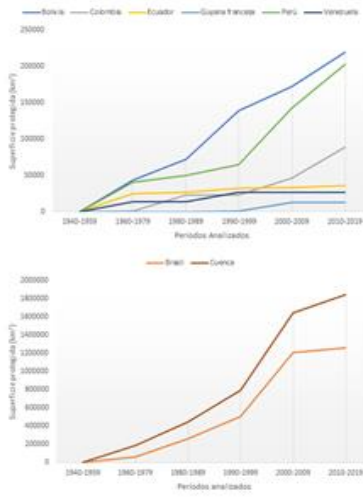
17 Throughout this period, policies for the creation of management categories that are discussed
18 in the chapter and its supplemental information have presented advances and setbacks,
19 however, mounting pressure on Amazon resources and more policies favoring conventional
20 development, put what the Amazon countries have achieved in more than half a century of
21 conservation policies at serious risk. Particularly, in the last five years, after a decade of a
22 downward trend in deforestation, the Amazon forests have seen an overall surge in
23 deforestation including inside PAs and ITs, bringing back and more forcefully the need for a
24 discussion about more effective, innovative views on protected areas systems and other
25 effective area-based conservation measures, and the political stakes of the region's
26 governments to honor their conservation commitments.

27 **Keywords:** Indigenous Territories, Protected Areas, Conservation

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1 GRAPHICAL ABSTRACT



2

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1. RECENT HISTORY OF THE DESIGNATION OF PROTECTED AREAS AND THE RECOGNITION OF INDIGENOUS TERRITORIES IN THE AMAZON

The socio-environmental dynamic corresponding to the historical period covered in this chapter highlights a common starting point among all the countries that share the Amazon basin. During the first half of the 20th century, or later in some countries, the National Security Doctrine (Buitrago 2002) was the paradigm from which state policies were designed and implemented to guarantee sovereignty in a space that was still disputed between Amazon countries, but also between transnational companies and between the latter and local populations. Thus, campaigns such as the "Living Frontiers" in the Ecuadorian Amazon or the great "Westward March" in the Brazilian Amazon were promoted, which led to the colonization of "wastelands" and the expansion of the extractive economy in the Amazon (RAISG 2016). This logic of occupation of wastelands, or uncultivated lands, was followed by all institutional frameworks associated with agrarian development, colonization and deforestation, with the market –formal, but also illegal– for lands and tropical timbers (RAISG 2015). Therefore the contemporary process of forest loss was only one of the main impacts of the accelerated process of land use change in the 20th century; the other was the displacement in many cases of Amazon peoples from their ancestrally occupied land. An analysis of the development ideologies of the historical period considered in this chapter and the policy framings stemming from them for the Amazon is discussed in Chapter 13.

With the Agrarian Reform of 1953 in Bolivia and a few years apart, in Colombia, Ecuador and Peru, the colonized land in the region was distributed to settlers. These circumstances gave rise to schemes of dispossession and trafficking of lands inhabited by indigenous peoples and other traditional groups, which enabled concentration of land in parts of the Amazon (RAISG 2016).

Although Peru's 1920 Constitution recognized the legal existence of "indigenous communities," their legal status, their autonomous makeup and communal ownership of their lands, these rights did not apply to the Amazon indigenous peoples until 1974, when the first

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1 Law of Native Communities of the Peruvian Amazon was enacted¹. In 1937, the Ecuadorian
2 government was obliged through the first Communes Law to “protect [these] historical
3 communities,” recognizing them as beneficiaries of rustic lands by the competent authority.
4 However, this was not the case for the indigenous populations of the rainforests in the Pacific
5 and the Amazon, because they did not fit into the farmers’ economy scheme, where land is a
6 factor of production, and because of the high level of ignorance and stigmatization of their
7 culture. Later, traditional occupation and community lands were the subject of legislation, and
8 between 1964 and 1994 communal lands were titled in Ecuador in an area of approximately
9 40,000 km². The Agrarian Development Law (1994) recognized the exercise of collective land
10 ownership and access to land titling. In the following years, through different codifications of
11 this law, forms of access to collective land of ancestral possession are established, and in
12 2004, Article 49 of the Legalization Law states that "the State will protect the lands that are
13 destined to the development of the *Montubio*, Indigenous and Afro-Ecuadorian populations
14 and will legalize them through free adjudication to the communities or ethnic groups that have
15 been in their ancestral possession, under the condition that their own traditions, cultural life
16 and social organization are respected". With the recognition of ethnic groups as beneficiaries,
17 in Ecuador, the spectrum of land tenure was opened beyond the scope of the community,
18 making room for the legalization of a territory claimed by a nationality².

19 Beginning in 1966, Colombia promoted the creation of indigenous reserves as a form of
20 provisional collective tenure, and by 1977 these reserves began to be legally recognized as
21 *resguardos*. At the end of the 1980s, territorial rights over 200,000 km² in the Colombian
22 Amazon were recognized. The State adopted the legal regime of "Indigenous Reserves" for
23 recognized territories of collective property of the communities, which have the character of
24 inalienable, imprescriptible and unseizable (defined in Article 63, 329 of the 1991 Political
25 Constitution); are a legal and socio-political instance of special character, formed by one or
26 more indigenous communities, which with a collective property title enjoy the guarantees of
27 private property, own their territory and are governed for the management of this and their life
28 by their autonomous organizations, protected by the indigenous jurisdiction and their own

¹ Decree Law 20653, Law of Native Communities and Promotion of the Regions of La Selva and Ceja de Selva, Peru

² Ley de Tierras Baldías y Colonización, Codificación de 2004. Ecuador

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1 normative system. Along with this, the Constitution recognized these indigenous managed
2 territories as part of the political-administrative structure of the nation.

3 In Brazil, in the context of the "Westward March" the pattern for indigenous land recognition
4 was to distribute small parcels of land to small communities, which was the beginning of a
5 standard of land tenure that became common in the following years, but not guided strictly by
6 the law, but by different situations of contact and degrees of acculturation. This pattern tried to
7 facilitate a much-desired process of integration of indigenous people through agricultural
8 production. Starting in the 1960s, the Indian Protection Service (SPI acronym in Portuguese)
9 played an important role as an indigenous "heritage manager", in which context the term
10 Indigenous Land appeared, which would later become part of the Indian Statute in 1973. In
11 1967 the National Indian Foundation (FUNAI, acronym in Portuguese) was created to fulfill
12 the role of the SPI in the management of indigenous issues (land, work and other resources).
13 The creation of FUNAI was framed in the plans of the military government (1964-1984) for
14 development, expansion of the agricultural frontier and occupation and integration of the
15 Amazon (RAISG 2016).

16 The Brazilian Federal Constitution of 1988 defines Indigenous Lands as "those inhabited by
17 them on a permanent basis, those used for their productive activities, those indispensable to
18 the preservation of the environmental resources necessary for their well-being, and those
19 necessary for their physical and cultural reproduction, according to their uses, customs, and
20 traditions." They belong to the Union, the Indians have permanent possession and exclusive
21 use of the riches of the soil, rivers and lakes on them, and the State is obliged to promote the
22 recognition of these lands.

23 The first period of incipient recognition of the Amazon Indigenous Peoples and their right to
24 land in the midst of the national colonization of the regions, was followed by processes of
25 social organization. At the start of the 80s in Ecuador, an Amazon confederation, currently
26 CONFENIAE (Confederación de Nacionalidades Indígenas de la Amazonía Ecuatoriana), was
27 consolidated; the same as in Peru with the subsidiaries of regional representative bodies such
28 as AIDSESEP (Asociación Interétnica de Desarrollo de la Selva Peruana) and others; in Bolivia
29 the CIDOB (Confederación de Pueblos Indígenas del Oriente Boliviano); in Colombia the

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1 regional organization OPIAC (Organización Nacional de los Pueblos Indígenas de la
2 Amazonía Colombiana). In Brazil, the regional organization COIAB (Coordenação das
3 Organizações Indígenas da Amazônia Brasileira) was born in 1989 after the 1988 Constitution
4 favored “political representation by delegation” within the indigenous movement and thus
5 improving dialogue with public institutions, especially to deal with territorial demands
6 (RAISG 2016).

7 Along with the demand for the right to land and the reaffirmation of indigenous cultural
8 identities, an international milestone in the recognition of indigenous people’s rights was the
9 ILO Convention No. 169 of 1989 named Indigenous and Tribal Peoples Convention, ratified
10 by the Amazon States over time.

11 Towards the beginning of the second half of the 20th century, the institutionalization of areas
12 set aside for the protection of nature was also developing in the countries of the region. It was
13 after the 1940 Pan-American Convention for the Protection of Fauna, Flora and Natural Scenic
14 Beauties (Washington Convention) that several countries advanced with their ratification,
15 towards the creation of the first conservation areas. This first effort focused on the protection
16 of transition zones, as in the case of the La Macarena Reserve in Colombia, created in 1948 to
17 protect a great biological diversity of Andean, Amazon and Guianas shield origin. In 1959 the
18 first unit with strict protection category was created in the Brazilian Amazon (Araguaia
19 National Park) and then in 1960, the first System of National Natural Parks was
20 institutionalized in Colombia. In 1961 the first protected area was created in the Peruvian
21 Amazon (Cutervo National Park), the first forest reserve in the Venezuelan Amazon (Imataca)
22 and new forest reserves were established in Brazil and other lake reserves in the Bolivian
23 lowlands, which gave rise to its first Amazon protected area, the Isiboro Sécure National Park
24 in 1965. This was possible soon after in Ecuador, when in 1970 two conservation units were
25 created in the Amazon, both in the Andean-Amazon foothills (RAISG 2016 and Supplemental
26 Information annex).

27 Designation of protected areas in the early twentieth century did not follow a standard and
28 each nation used its own approach to management. In 1962, the IUCN’s newly formed
29 Commission on National Parks and Protected Areas (CNPPA), now the World Commission on

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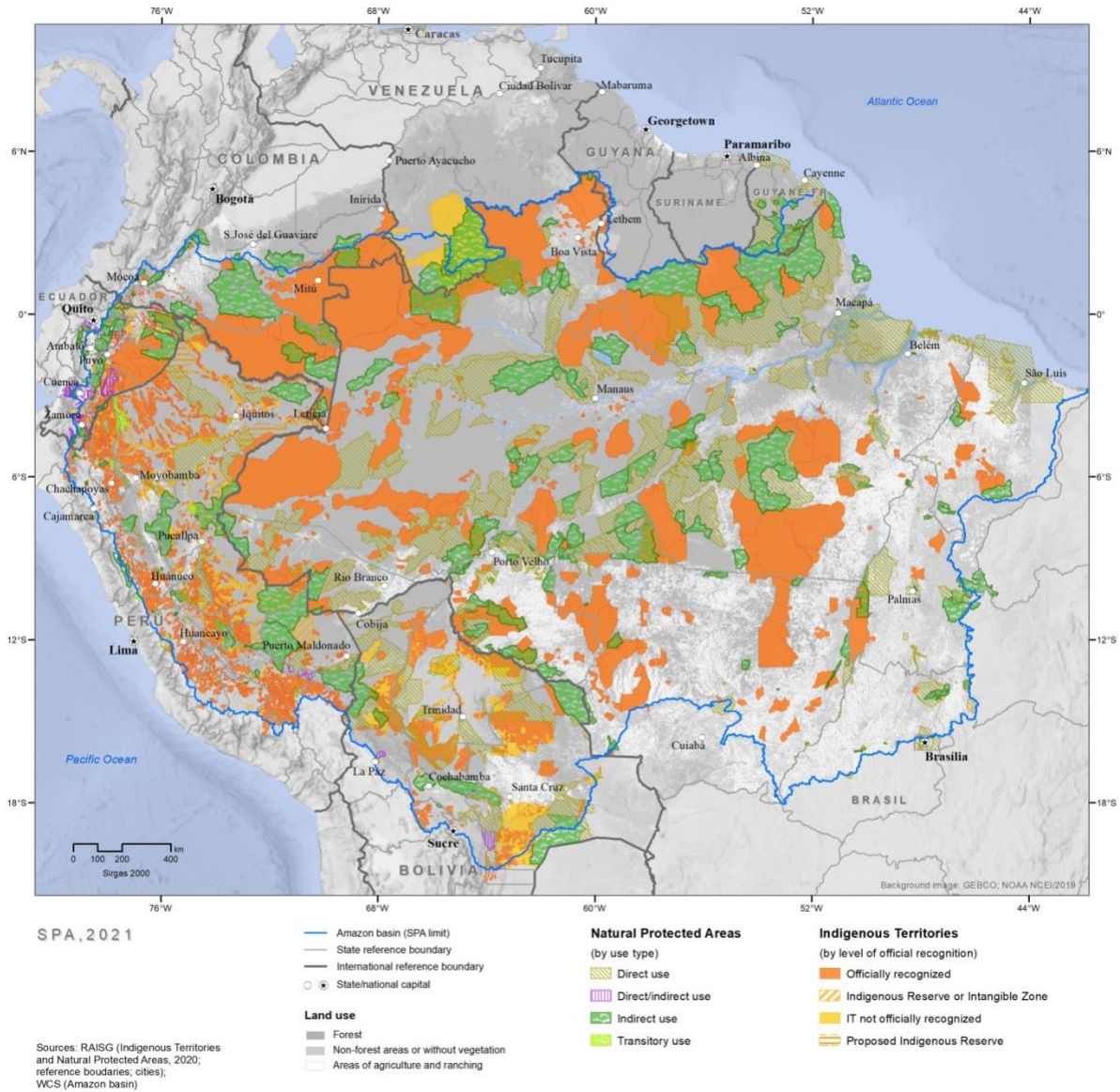
1 Protected Areas (WCPA), presented during the First World Conference on National Parks in
2 Seattle, a paper on nomenclature on the protected areas categorization. The 1972 Second
3 World Parks Conference called on IUCN to define types of protected areas and develop
4 suitable standards and nomenclature for such areas, which was the background to the CNPPA
5 decision to develop and periodically update over time a categories system for protected areas.
6 This system eventually secured its endorsement by the Convention on Biological Diversity, at
7 the 7th Conference of the Parties to the CBD in Kuala Lumpur in February 2004 (Dudley
8 2008). This, as well as new norms of conduct entailing commitments from the countries, such
9 as the 1992 Convention on Biological Diversity (CBD), triggered the development of new
10 mechanisms and policy instruments (decrees, regulations, laws, codes or strategies and
11 national programs), now better articulated to a centralized institutionality, responsible for
12 protecting a cultural and natural legacy during a developmental process in the Amazon biome
13 of the countries that occupy the basin. These are the antecedents of the institutionalization of
14 the current national systems of conservation units (SNUC in Brazil) or of protected natural
15 areas (INPARQUES, SNAP, SINANPE or SINAP) in the Andean-Amazon countries.

16 **1.1. Protected Natural Areas: extent of the coverage and categories of protection**

17 In the Amazon basin demarcated for this study, there are 571 protected natural areas (PNA)
18 (Map 1) (RAISG 2020) some with a certain level of overlap between them - which are
19 grouped depending on the administrative type, that is, which entities manage them (national,
20 departmental, municipal or private), or by the level of environmental protection or
21 conservation they pursue. In this sense, the PNA where the conservation objective is key, the
22 permitted use is called indirect. It would be the equivalent of IUCN categories I, II and III.

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INDIGENOUS TERRITORIES AND NATURAL PROTECTED AREAS



1

2 This group includes most national parks, natural monuments, nature reserves, among others. In
 3 the opposite case, there are the PNAs for direct use, where the extraction of natural resources
 4 is allowed, in principle, under a strategy of sustainable use of the resource. A third type are the
 5 PNAs with indirect / direct use, where internal zoning is what defines what type of territorial
 6 management each zone has. This grouping of management categories by type of use is the one
 7 used by the RAISG (Amazon Network of Georeferenced Socio-environmental Information),
 8 whose database updated through 2020 was used to obtain the figures presented here. The

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1 distribution for each country of the Amazon basin, in terms of quantity and surface area, is
2 presented in Table 1, calculating the net protected area extension, without overlap. Guyana,
3 despite being part of the basin, does not have protection figures in that area.

4 **Table 1.** Coverage of Protected Natural Areas in the Amazon Basin

Territorial Unit	Number of Protected Natural Areas	Protected Surface Area without overlap (km ²) ¹	Proportion of the total protected area of the Basin (%)	Proportion of protected area in relation to its extension in the Basin
Bolivia	81	216.322	11,9	30,3
Brazil	340	1.226.241	67,4	24,3
Colombia	39	89.091	4,9	26,0
Ecuador	26	35.487	2,6	26,8
French Guiana	5	12.685	0,7	50,7
Peru	66	203.916	11,2	21,1
Venezuela	6	23.838	1,3	46,0
Amazon Basin	563	1.819.368	100,0	24,9

5 ¹ Values obtained by calculation with a geographic information system, using Sinusoidal projection, with
6 meridian of -60.

7
8 The protected area in the basin represents 25% of its surface, of which 59.6% is administered
9 at the national level and the remainder, at the departmental or state level (Table 2). The
10 municipal level and private reserves were not considered due to limitations in access to this
11 information and due to the small extension that they represent. By country, the protected
12 proportion varies between 21% and 51%, where Peru has the lowest proportion of protection
13 of its national Amazon basin and French Guiana has the highest. On the other hand, 42.2% of
14 the protected surface is under the categories of indirect use, 57.6% is in categories of direct
15 use and the remaining 0.2% in other categories.

16 The PNAs for direct use are made up of a set of 342 units, in five of the seven countries
17 represented in the Amazon basin. Brazil is home to 66% of these areas, grouped into 10
18 categories, Bolivia 21%, distributed in 27 categories, Peru 11% in six categories and the
19 remaining 2% are held by Colombia and French Guiana. The name or category does not
20 always reflect the type of management that is conferred on it. For example, in the case of
21 Bolivia and French Guiana there are areas of direct use that are National Parks and Natural

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1 Parks, which are considered areas of preservation and indirect use in most of the countries of
 2 the basin. To know exactly what the objective of the PNA is in these cases, it is necessary to
 3 review their creation objectives.

4 Furthermore, in Bolivia, protected areas recognized by the Constitution can be autonomous
 5 indigenous territorial entities at the same time, and they are not seen as mutually exclusive, but
 6 even complementary (as is the case in Colombia).

7 **Table 2.** Protected Natural Areas in the Amazon basin by administrative level and type of
 8 management: Percentages reflect the proportional area in each category type by country
 9 relative to the total area of the Amazon in each country except the last column (Amazon
 10 Basin), which reflects the proportional area in the Amazon.

ANP	Percentage %							
	Bolivia	Brazil	Colombia	Ecuador	French			Amazon Basin
					Guiana	Peru	Venezuela	
National total	14.1	13.2	25.7	26.3	51.5	17.8	50.7	15.1
Indirect use	6.8	6.6	25.5	26.3	41.0	10.7	50.7	8.8
Indirect/direct use	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Direct Use	6.8	6.6	0.2	0.0	10.5	6.5	0.0	6.1
Departmental total	16.7	11.8	0.3	0.5	0.0	3.2	0.0	10.2
Indirect Use	0.0	2.6	0.3	0.5	0.0	0.0	0.0	1.8
Direct Use	16.7	9.2	0.0	0.0	0.0	3.2	0.0	8.4
Total	30.7	25.0	26.0	26.8	51.5	20.9	50.7	25.3

11

12 The declaration of PA in the basin since 1940, when the first was decreed, had its maximum,
 13 in terms of number, in the period 2000-2009 (Figure 1), a trend that is observed at the national
 14 level in Brazil, Bolivia and French Guiana. In the case of Peru, the periods 2000-2009 and
 15 2010-2019 are equally relevant. The exceptions are Colombia and Ecuador, with the largest
 16 number of areas created between 2010 and 2019. In the case of Venezuela, the PNAs are prior
 17 to 1999.

18 This trend can be seen for the basin and for Brazil as well, reflected in the increase in surface
 19 area of PA in the same period (Figure 1). However, the correlation does not hold for Bolivia,

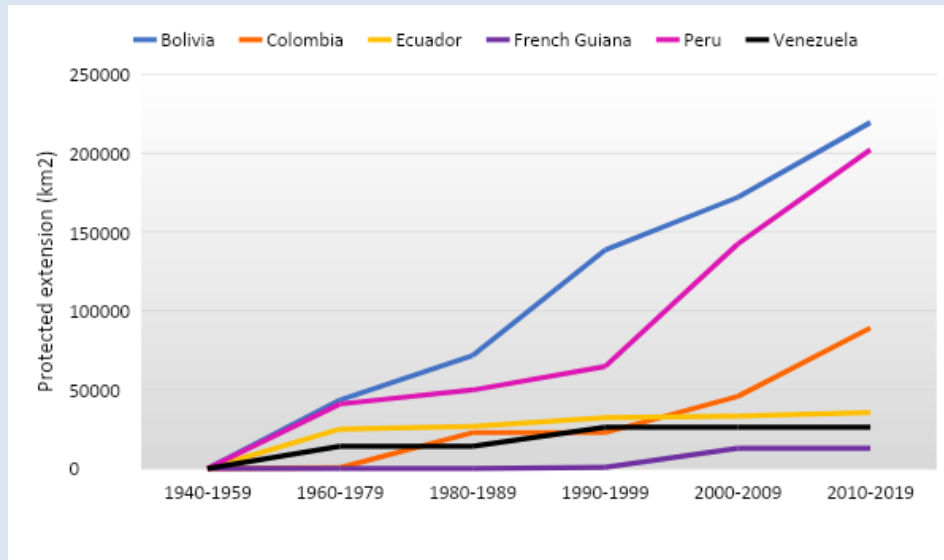
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1 which, together with Peru and Colombia, had the greatest increase in protected area in the
2 decade 2010-2019 (Figure 15.1). The regional trend over time has been towards an increase in
3 the protected surface area, with the exception of French Guiana and Venezuela, which
4 remained stationary for the last two periods and Ecuador with little variation

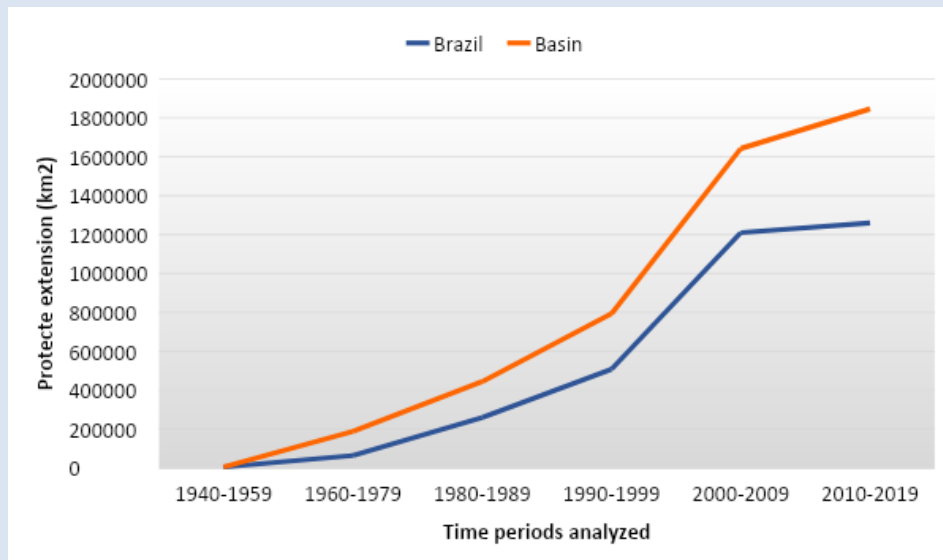
5 In terms of area designated as PA, most of the countries set aside significant extensions well
6 before the nineties, enacting in the process decrees and laws at various levels to allow the
7 designation, administration, and regulation of protected land. Many of them were delimited
8 overlapping indigenous territories, which were not recognized at the time. Another important
9 period of PA designation and more importantly, of institutionalization and therefore, enhanced
10 planning and resourcing of national systems of PAs, is clearly associated with the Earth
11 Summit of 1992, which aside from achieving international commitments of the basin's
12 countries, favored the political treatment of conservation as an issue of collective interest.
13 Moreover, future national constitutions would include the States' obligation to promote the
14 conservation of biological diversity and guarantee for its citizens safe environmental
15 conditions and access to natural resources. Another trigger of PA designation and enhanced
16 management was the large amounts of international funding for conservation programs
17 specific to the Amazon, for example, the ARPA program in Brazil, starting in 2002.

18 Regarding the administrative competence, we find that the growth of the departmental areas
19 was greater in the last 20 years than that of the national areas (142% and 101%, respectively),
20 although the national ones represent 60% of the protected surface area in the basin. This
21 situation needs to be considered to ensure human and financial resources are in place to
22 guarantee the conservation and sustainable use objectives they were created for.

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a)



b)

* Data is at a logarithmic scale to better consider trends in all countries

Figure 1. Historical dynamics of the surface* (a) area covered by ANPs in the Amazonian countries and (b) area covered by ANPs in Brazil and Amazon

1

2 On the other hand, even though the growth in protected area can be considered an achievement
3 in terms of protection of the Amazon ecosystems, there is a concern associated with the type

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1 of use of these PA, since 57.4% is of direct use, that is, they do not have conservation as their
2 primary objective (IUCN categories I-III). In parallel with the designation of new PA there has
3 also been a process of downgrading, downsizing and degazettement (PADDD) going on (BOX 1)

4 The areas of direct use are the category with the smallest surface (40.6%), but they were the
5 ones that experienced the highest percentage growth in the period 2000-2019 (79.8% vs
6 63.8%) (Table 3). In the case of the departmental PA, 82.2% are for direct use. The greater
7 proportional increase in the surface in areas of direct use can account for a permissiveness that
8 jeopardizes the conservation objectives within the areas and the connectivity between
9 protected areas designated for stricter conservation purposes. The countries where the PAs for
10 direct use represent a greater area of their total protected area are represented by Brazil and
11 Bolivia. In Brazil, the surface in direct use areas represents 63.1% of the total of the PA area;
12 in Bolivia, 76.4%.

13 **Table 3.** Growth by periods in the area protected (%) in the mazon basin considering the
14 administrative level and type of use (protection category)

	Time period		
	1980-1999	2000-2020	Total
National	19.7	39.8	59.6
Indirect use	12.6	22.3	34.9
Indirect / directo use	0.03	0.14	0.2
Direct use	7.1	17.1	24.2
Departmental	11.8	28.6	40.4
Indirect use	0.4	6.8	7.2
Direct use	11.4	21.8	33.3
Total	31.5	68.5	100.0

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1 1.1.1. An assessment of the degree of effective protection

2 Evaluating the effectiveness of protected area management is a key element in progress
3 towards the CBD Strategic Plan and its Aichi Targets, especially Target 11, which addresses
4 the contribution of a protected area system managed effectively and equitably (Hockings *et al.*
5 2015). The management effectiveness evaluation refers to: i) design aspects, both of
6 individual sites as well as of protected area systems; ii) adequacy and appropriateness of
7 management systems and processes; and, iii) delivery of protected area objectives (Hockings
8 *et al.* 2006).

9 In 2008, as part of the regional efforts for the implementation of the Programme of Work on
10 Protected Areas of the Convention on Biological Diversity (PoWPA CBD), the Latin
11 American Technical Cooperation Network on National Parks, other Protected Areas, Wild
12 Flora and Fauna (REDPARQUES, acronym in Spanish) with the support of the CBD
13 Secretariat, WWF, IUCN, the Organization of the Amazon Cooperation Treaty (ACTO), and
14 the Andean Community of Nations joined to launch the program Vision for the Conservation
15 of the Biological and Cultural Diversity of the Amazon Biome based on Ecosystems (Amazon
16 Conservation Vision). Its mission is to contribute to the administration and effective
17 management of the national systems of protected areas and to the maintenance of goods and
18 services, integrity, functionality and resilience of the Amazon biome against effects of natural
19 and anthropogenic pressures in the context of climate change, to the benefit of economies,
20 communities and biodiversity. The Amazon Conservation Vision has a 2010-2020 Action
21 Plan, structured around the PoWPA elements to comply with the CBD Aichi Targets, and a
22 Strategic Plan for the 2018-2022 period.

23 In recent years, REDPARQUES has made an outstanding effort to evaluate, at the biome
24 level, the management effectiveness of its protected areas with a focus on two objectives
25 contemplated in the PoWPA: objective 1.4, related to improving the planning and
26 management of site-based protected areas, and objective 4.2 related to the evaluation and
27 improvement of the effectiveness of protected area management. The results show that in each
28 of these objectives, significant progress was made in creating strategies to strengthen the
29 national systems of protected areas, facilitating their management and governance, "a factor

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1 that has allowed the States to comply with the commitments of the CBD" (REDPARQUES
2 2016), even when important gaps are identified for protection beyond the formally established
3 protected areas, that is, against representativeness, territories conserved by indigenous peoples
4 and local communities, and measuring success in conserving connected landscapes
5 (REDPARQUES 2018). According to REDPARQUES (2018), all the Amazon countries and
6 the French Guiana, have institutionalized management evaluation tools in the national systems
7 of protected areas that are periodically applied at the site level. This report concludes that the
8 evaluations of the protected areas for six of the Amazon nations (Bolivia, Brazil, Colombia,
9 Ecuador, Peru and Venezuela) plus the French Guiana, had advanced by more than 60%, with
10 later progress in Colombia. It also highlights how the improvements and the achievement of
11 the objectives of creating PA in a more efficient way, are observed in light of the highest
12 international standards, as is the case of the IUCN Green List of Protected and Conserved
13 Areas "whose nomination implies the most thorough analysis of world-class management
14 effectiveness standards" (REDPARQUES 2016). Peru achieved two certified Amazon PAs in
15 2018, the Cordillera Azul National Park and the ECA Amarakaeri; in 2020, seventeen PAs
16 from the Amazon biome in Bolivia, Colombia, Ecuador, and Peru started the process of the
17 Green List (IUCN 2020).

18 Tools have been developed and applied to analyze the effectiveness of the management of
19 protected areas of transboundary territories such as the Trinational Program for Conservation
20 and Sustainable Development of the Corridor of Protected Areas in Putumayo (Colombia,
21 Peru and Ecuador), 3 mosaics (ecological corridors) in Brazil, the binational corridor
22 Vilcabamba-Amboro (Peru and Bolivia), among others.

23 In terms of management effectiveness, the Amazon Conservation Vision showed the need to
24 jointly interpret the variables of the national tools from a regional perspective to identify
25 reference indicators that contain elements pertinent to the Amazon countries, to analyze how
26 PAs contribute to the conservation of the biome from a regional perspective (Navarrete 2018).
27 This need was addressed in the Protocol for the measurement of management effectiveness of
28 the Amazon biome, where the priorities identified: Governance, Climate Change, Evaluation
29 of socio-environmental impacts, Management programs and Compliance with the
30 conservation objectives of the Protocol, were considered for the components of the IUCN

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1 Green List Standard (IUCN *et al.* 2019). This Protocol, made up of 26 indicators, was applied
2 in 62 Amazon protected areas of Bolivia, Brazil (Acre State), Colombia, Ecuador and Peru.
3 The main results for the indicators considered a priority are presented in Table 4
4 (REDPARQUES 2019). Based on these results, it is evident that the Management Programs
5 (in place) is the indicator that presents the least progress at the scale of the Amazon biome,
6 followed by those of Climate Change and Impact Assessment. Those with the highest levels of
7 effectiveness at the level of the Amazon biome are related to Achievement of the conservation
8 goals and Governance.

9 **Table 4.** Level of progress in the management effectiveness at the scale of the Amazon biome
10 based on thematic priority (in percentage, from the sample of 62 evaluated PA).

Themes	Progress Level (%)				
	High Level	Medium Progress	Low Progress	Limited Progress	n/a
Governance	52	32	8	5	3
Climate Change	37	6	0	0	57
Assessment of socio-environmental impacts	45	48	2	5	0
Management programs (management strategies)	26	55	13	2	4
Achievement of the conservation goals of PA	89	3	2	0	6

11 Created from the data reported in REDPARQUES - IAPA Project (2019)

12

13 As a result of the application of the Protocol, the following recommendations for success in
14 the management of protected areas in the Amazon biome stand out (REDPARQUES 2019).

- 15 ● Strengthen shared management agreements (established and signed) between the
16 administration of PAs and local communities / traditional authorities, which favor the
17 implementation of conflict resolution mechanisms.
- 18 ● Strengthen the perception of PAs as a source of benefits for local communities and
19 direct users, strengthen the concerted mechanisms for the distribution of benefits.
- 20 ● Implement sustainable and productive economic alternatives, within the PAs and in
21 their area of influence, improving the quality of life of local people.

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- 1 ● Generate information applicable to management, which enables validation on the state
2 of biodiversity conservation and the cultural values of Pas.
- 3 ● Improve institutional capacities for the management and handling of PAs, considering
4 the implications in terms of governance.
- 5 ● Implement land use planning strategies focusing PAs management on their integration
6 with the regional context, favoring connectivity, biological corridors and conservation
7 at the landscape scale; and,
- 8 ● Visualize PAs as strategies for adaptation and conservation in the face of climate
9 change and to promote the generation of inclusion mechanisms at the regional level to
10 strengthen management around climate change and its impacts.

11 This set of recommendations emerging from a biome-specific analysis, indicates that what is
12 mostly lacking in the Amazon is the implementation of an integral conservation vision, where
13 PAs together with other effective area-based conservation measures (OECMs) are planned
14 with well-defined goals for biodiversity and ecosystem services conservation, co-managed
15 with the local communities, and involving private stakeholders and other sub-national and
16 local forms of government. Information to design effective site networks exists for the
17 Amazon and elsewhere (Prüssmann *et al.* 2017; RAISG 2020; Maxwell *et al.* 2020). The
18 constituent parts for this kind of conservation networks are abundant in the Amazon given the
19 extent of PA and IT coverage, intact forests, and other private and community-based
20 conservation and sustainable use areas. The challenges are great though, particularly those
21 related with protected area resourcing and biodiversity protection effectiveness tracking
22 (Maxwell *et al.* 2020). Based on the significant correlation found between PA resources
23 (budget and staffing) and positive changes in vertebrate abundance (Geldmann *et al.* 2018 in
24 Coad *et al.* 2019), an analysis comparing PAs of four biogeographical realms of the world
25 (excluding North America, Western Europe and Australia), in terms of adequacy of resources,
26 found that PAs of ecoregions in the Neotropics had the lowest scores (Coad *et al.* 2019). When
27 geographic ranges of thousands of vertebrate species were overlapped with the scored PAs,
28 results show that only a very low percentage of the species are adequately protected: using
29 simple PA coverage metrics to measure progress toward Target 11, under the assumption that
30 all PAs are effective, is likely to overestimate effective PA coverage by about 400% and

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1 vertebrate species representation by up to 700% (Coad *et al.* 2019). For the Amazon region,
2 Prüssmann *et al.* (2017) show that there is a reduced number and extension of PAs with strict
3 conservation categories (IUCN categories Ia and Ib). In some countries these categories are
4 even non-existent to date. On the other hand, Category VI, which allows sustainable use of
5 natural resources, is the category most implemented within the region, as also indicated above
6 in Section 1.1. Aggravating the situation, the current economic downturn in the region's
7 nations, combined with low political priority given to environmental conservation issues could
8 widen the financing gap of all PAs in the Amazon. The magnitude of threats that currently
9 affect protected areas is discussed in Section 1.3 of this Chapter.

10 **1.2. Indigenous Territories**

11 *1.2.1. Indigenous territories governance as a conservation example*

12 Ensuring ecosystem integrity in the Amazon is a priority in the environmental crisis we are
13 experiencing today. For this, it is essential to understand the close link between ecological
14 dynamics and the knowledge and territorial management systems of indigenous peoples who
15 have inhabited it for thousands of years, ensuring the conservation of vast territories. This
16 section begins with the definition of the concept of indigenous territory, which will enable a
17 better understanding and contextualization of its content.

18 Article 13 of Convention 169 of the International Labor Organization, which is a guiding force
19 in these matters since the countries of the region ratified the Convention, highlights that
20 territory means "the entire habitat of the regions that the peoples in question occupy or use in
21 any other way." In Brazil's Federal Constitution (1988), the lands traditionally occupied by
22 indigenous people are those "they permanently inhabit, those used for their productive
23 activities, those essential for the preservation of the environmental resources necessary for
24 their well-being and for their physical and cultural reproduction, according to their uses,
25 customs and traditions." Colombian legislation (Decree 2,166 of 1995. Law 160 of 1994)
26 specifies that indigenous territories are "areas owned regularly and permanently by an
27 indigenous peoples group and those that, although not controlled that way, constitute the
28 traditional scope of their social, economic and cultural activities."

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1 Indigenous peoples' groups have traditionally and immemorially occupied a territory they
2 consider their own. According to this cultural worldview, this original indigenous territory was
3 predestined to each group by the creators and bequeathed to each group by their direct
4 ancestors. From this perspective, indigenous territory refers to the ancestral territorial
5 jurisdiction of each ethnic group. Roughly speaking, the peoples that identify themselves as
6 part of these jurisdictions, recognize them as territorial figures culturally defined by their
7 knowledge systems expressed in their historical origin. In turn, the continuous ancestral
8 territories that constitute this macro indigenous territory show complementarity in ecological
9 and geographical aspects (ACIMA - Asociación de Capitanes Indígenas del Mirití Amazonas
10 2018). Most of these systems of traditional thought share "cultural principles" that are related
11 to what the non-indigenous world has defined as conservation models, since they result in the
12 protection of biodiversity and ecosystems.

13 According to Fundación Gaia Amazonas (2020a), based on studies in a region of 1.3 million
14 km² in the Northwest Amazon, connecting areas belonging to two hydrographic basins of the
15 Amazon: basins of the upper Negro – Vaupés River and lower Caquetá - Japurá, in Colombia
16 and Brazil, the description of the ancestors' journey for the settlement in the areas that these
17 peoples currently occupy is described in the origin stories, which provide precise details that
18 explain the relationship that exists between the territory's geography and traditional
19 knowledge, and daily life practices and rituals of each group. This thinking and management
20 framework constitutes a conservation model that includes deep and detailed geographical
21 knowledge, ancestral population models of the territory, management of sacred sites systems,
22 food systems and ecological calendars, among other aspects, as the current basis of the
23 governance of indigenous territories that explains the complex and complete vision of the
24 territory they share (see also Chapter 10). Maintaining the balance of this original ordering
25 implies new generations assuming commitments and responsibilities related to learning
26 management knowledge and respect for the regulatory regimes established in the laws of
27 origins. The latter is one of the main challenges for the conservation of the Amazon, given the
28 share of land under indigenous management, the growth of its population, lack of income
29 sources, and the increasing tensions within the context of cultural globalization (Chapter 13),
30 accelerated by social media and mobile communications more broadly. Furthermore, the lack

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1 of governmental attention paid to these sparsely populated territories exacerbates the risk from
2 increased pressures due to an escalation of illegal activities (e.g., mining, logging, land
3 trafficking, illicit crops) within these territories (processes well explained in Chapter 13,
4 section 3.3).

5 1.2.2. *Recognized indigenous territories: extent of coverage and state of recognition*

6 There are currently about 375 or more indigenous peoples (Walker *et al.* 2020) in the Amazon,
7 depending on the sources and the geographic limit that is used (RAISG 2020) with a total
8 population estimated at about 2 million. If one counts all the other social groups that live there
9 both in the urban municipal capitals, as well as in farmer, black and quilombo settlements, the
10 Amazon is inhabited by more than 40 million people.

11 In the Amazon Basin demarcated for this study, 6,443 Indigenous Territories (IT) are
12 identified (Map 1) (RAISG 2020), which cover approximately 27% of the region (Map 1,
13 Table 5). The country with the highest number of titles is Peru, followed by Ecuador, which,
14 when considering the area, indicates that many are areas with reduced surface. In this sense,
15 Brazil, Venezuela, Bolivia, Colombia and French Guiana have territories whose averages vary
16 between 3,021 and 818 km², decreasing in the aforementioned order of the countries. At the
17 other extreme, Peru, Ecuador and Guyana have average areas in their territories ranging from
18 65 to 192 km², with Peru at a lower extreme and Guyana at the other. This is indicative of
19 different policies, where in the former, indigenous territories are considered as a large
20 territorial unit, i.e. the macro territories described in the previous section, and in the other case,
21 an atomization is generated, associated with the existing procedures and requirements for their
22 recognition (Peru's case is further explained in Section 1.2.4 of this Chapter).

23 Four types of figures were identified in the basin regarding legal recognition of the territories
24 (Table 6), where 89% of the surface area in IT is officially recognized, 6.5% does not have
25 legal protection and the remaining 4% covers Indigenous Reserves (proposed or existing) and
26 Intangible Zones. Indigenous Reserves and Intangible Zones (depending on the country) are
27 territories for the protection of Indigenous Peoples in Voluntary Isolation or Indigenous
28 Peoples in Isolation and Initial Contact (PIAV and PIACI, acronyms in Spanish).

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1 **Table 5.** Indigenous territories in the Amazon Basin

Territorial Unit	Number	Surface area (km²)^a	Representation between the indigenous territories of the basin (%)	Representation per territorial unit in the basin (%)
Bolivia	148	189.037	9.6	26.5
Brazil	382	1.153.843	58.6	22.8
Colombia	162	185.852	9.4	54.3
Ecuador	643	73.957	3.8	55.9
French Guiana	4	3.271	0.2	13.1
Peru	5.060	328.183	16.7	34.0
Venezuela	17	29.259	1.5	56.5
Amazon Basin	6.443	1.968.594	100.0	27.0

2 ^a Values obtained by calculation with a geographic information system, using Sinuosoidal projection, with
3 meridian of -60.

4 At the national level, countries such as Brazil, Colombia and French Guiana stand out, where
5 all the territories are officially recognized. Although in the case of Brazil, this is not quite the
6 case because many of the ITs are in an unfinished process. Since 1988 in Brazil, the executive
7 power has the responsibility for completing the demarcation of the IT within five years, but
8 this has not occurred timely, and currently, in addition to the demands that have not even had
9 their legal recognition process initiated, there are 114 IT being reconsidered, due among other
10 things, to the lack of match between the territory identified before 1996 and the actual extent
11 of the claimed ancestral land (Fany Ricardo, *personal communication*, Aug2020). In contrast,
12 Venezuela only has territories that are not yet considered to be legally recognized.

13

14

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1 **Table 6.** Recognized Indigenous Territories in the Amazon Basin

Country	Officially recognized Indigenous Territory (Km ²)	Indigenous Territory without official recognition (Km ²)	Indigenous Reserve or Intangible Zone (Km ²)	Proposed Indigenous Reserve (Km ²)
Bolivia	123.208	65.828		
Brazil	1.153.843			
Colombia	185.852			
Ecuador	51.804	10.222	11.931	
Guyana	5.192			
French Guiana	3.271			
Perú	233.510	23.557	29.129	41.988
Venezuela	0	29.223		
Amazon Basin	1.756.716	128.830	41.060	41.988

2

3 In a regional historical perspective, before 1970 less than 6% of the total surface area of the
4 Amazon had some type of recognition, mostly concentrated in the indigenous lands of Brazil
5 (RAISG 2016). In the following two decades, additional areas were recognized in Brazil, Peru,
6 Colombia and Ecuador under different forms according to existing national regulations and
7 then, starting in the 90s, extensive surface areas of indigenous territories were recognized in
8 Bolivia, Ecuador and Peru in response to the claims for their territorial rights, based on the
9 demands of the indigenous movement - and supporting organizations - at the juncture of 500
10 years of resistance in 1992 (RAISG 2016).

11 Details of the recent historical context in which the process of recognition and formalization of
12 indigenous territories in the Amazon countries occurred are discussed in the Supplementary
13 Information Annex and also see Chapter 10.

14

15

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1 1.2.3. Existing policies for Indigenous Peoples in voluntary isolation (PIAV and PIACI, acronyms in
2 Spanish)

3 In the region, Brazil is the country with the greatest number of records of the presence of
4 isolated indigenous peoples, from groups formed by hundreds of people to those reduced to a
5 few survivors (Opas *et al.* 2018). In the Brazilian Amazon, 121 records were identified located
6 in 55 indigenous lands and 24 conservation units, of which 29 were confirmed. Although not
7 consistent with official indigenous policy, there are still eight areas with no protection
8 mechanism (Brazilian Federal Public Prosecutor's Office 2019; Ricardo and Gongora 2019).
9 With the 1987 shift towards the autonomy of indigenous peoples, FUNAI played an important
10 role as a regional reference in relation to PIAV policies. It was established as official policy in
11 Brazil that “the verification of the existence of isolated indigenous people does not necessarily
12 determine the obligation to contact them”³. In this way, reversing the logic of the contact
13 agents of previous times, it takes advantage of the information accumulated over decades to
14 identify, demarcate, monitor and protect the territory of peoples without physical contact with
15 those populations (Torres *et al.* 2021).

16 Until 2018, in the Peruvian Amazon, the Ministry of Culture reported the existence of
17 approximately 7,000 people belonging to 18 indigenous peoples in a situation of isolation and
18 initial contact (PIACI)⁴. Between the 90s and 2005, five Territorial Reserves were created in
19 Peru in perpetuity and studies were prepared that proposed the creation of a few others.
20 However, it was not until the 2000s that specific regulations were developed to guarantee the
21 protection of PIACI. Law 28736, approved in May 2006⁵, establishes that if there is evidence
22 of the presence of PIACI in an area, indigenous reserves will be created. Article 2 of the
23 regulation defines these areas as “Lands delimited by the Peruvian State, of temporary
24 intangibility, in favor of [the PIACI] [...], and as long as they maintain such situation, to
25 protect their rights, their habitat and the conditions that ensure their existence and integrity as
26 peoples”. The emphasis on transience indicates that Reserves are only recognized temporarily
27 or under conditional circumstances. Also, although article 5 of the law grants intangibility to

³ Portaria No. 1900 / FUNAI of July 1987

⁴<https://www.actualidadambiental.pe/mincul-en-peru-existen-7-mil-indigenas-que-viven-en-aislamiento-o-contacto-inicial/>

⁵ <https://leyes.congreso.gob.pe/Documentos/Leyes/28736.pdf>

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1 these areas, Article 6 establishes a series of exceptions to this condition. These provisions are
2 expanded in the regulation of the law, approved in 2007 and modified in 2016 (DS 008-2016-
3 MC)⁶, which adds the use of natural resources within the Reserves when the State "... deems it
4 of public necessity". This modification puts the survival of these peoples at risk since there is
5 no clarity regarding the criteria in which a public need is established.

6 Currently there are three Indigenous Reserves (adjusted from the former Territorial Reserves),
7 two Territorial Reserves, and proposals for the creation of six Indigenous Reserves in the
8 Peruvian Amazon⁷.

9 As in Brazil, although currently to a different degree, the advance of territorial recognition and
10 the effective work of protection systems in Peru are facing opposing interests from the
11 governments themselves in promoting investment and large infrastructure in the Amazon.
12 Likewise, the protection system for these reserves does not manage to effectively confront
13 activities such as illegal timber extraction and drug trafficking, which are proven to be present
14 in the territories of these peoples, which is a common scenario throughout the Amazon basin
15 (Vaz 2019).

16 In 1979 in Ecuador, the MA322⁸ designated the Yasuní National Park (PNY). During the
17 following years, reports of random encounters and violent or fatal attacks made evident both
18 the presence of uncontacted groups nearby PNY, and the need to count with an area that
19 ensures their protection. In 1999, the ED552⁹ established the Tagaeri Taromenane Intangible
20 Zone (ZITT) in the Eastern portion of the PNY, and banned "...in perpetuity, all kinds of
21 extractive activities" within this area. However, little or nothing was done to effectively
22 protect these groups: not only the map of oil concessions underwent only small variations, but
23 also the farming frontier, tourism, deforestation and illegal logging, the incursions of
24 explorers, religious missions, and adventurers, all augmented the threats and pressures to these
25 territories, and worsened pre-existing conflicts with the newly contacted Waorani people.

⁶ <https://busquedas.elperuano.pe/normaslegales/modifican-reglamento-de-la-ley-n-28736->

⁷ <https://bdpi.cultura.gob.pe/piaci>

⁸ Ministerial Agreement

⁹ Executive Decree

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1 Accordingly, in 2006, the OAS' ICHR¹⁰ requested the Ecuadorian government “to adopt
2 effective measures to protect the life and integrity of the people living in voluntary isolation,
3 the Tagaeri-Taromenane”, within the ZITT. With ED21872 in 2007, the ZITT limits were
4 created (resulting in an area of 758.051 ha), with a buffer zone of 10 km around it, and a plan
5 of Precautionary Measures for the protection of uncontacted groups was designed and
6 implemented through a national policy. In 2008, the national Constitution (article 57) declared
7 the ancestral and irreducible possession of their territories, however, in 2013, the National
8 Congress approved a resolution declaring oil exploitation within blocks 31 and 43 of national
9 interest; these blocks partially overlap with the north-eastern areas of the ZITT. In 2018, a
10 national consultation process approved an increase of at least 50.000 ha in the ZITTs area,
11 which granted a total area of 818.501,42 ha to the ZITT, but also altered and abolished various
12 articles from the ED21872 of 2007, allowing hydrocarbon perforation and exploitation
13 platforms” within the buffer zone.

14 *1.2.4. Risks to recognized indigenous territories and other conservation policies due to recent policy*
15 *changes: cases from Brazil and Peru*

16 *Brazil*

17 Contrary to constitutional rights conquered over many years of struggle by indigenous and
18 traditional peoples and civil society movements, the current government of Jair Bolsonaro
19 (2019 until present) seeks to eliminate the social, cultural and material reproduction of
20 indigenous, quilombola and traditional peoples, including violating their territorial rights,
21 which were unjustly announced as an obstacle for agribusiness and development (Escobar
22 2018; Ferrante and Fearnside 2019; Araújo 2020; Andrade *et al.* 2021; Vale *et al.* 2021) (see
23 also Chapter 30) given that small-scale agriculture is responsible for most of Brazil's food
24 production, rural employment and agricultural income (Paulino 2014). The conflict is not
25 about production but comes from the eagerness of access to land under indigenous tenure to
26 put in action a paradigm shift in public policies. This new paradigm aims to reestablish the
27 ideological, political and economic project of the period prior to the re-democratization -
28 Federal Constitution of 1988 - (see Chapters 13 and 14), in favor not only of agribusiness

¹⁰ The Organization of American States' Interamerican Commission for Human Rights

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1 interests, but also of the exploration of the subsoil of indigenous lands, to weaken their
2 territorial rights while simulating the transformation of indigenous peoples into some sort of
3 partners in business.

4 In 2019, a drastic proposal for a ministerial structure was presented, and although some points
5 were later revised, the initial proposal subordinated the recognition of indigenous and
6 quilombola territories to the Ministry of Agriculture. In fact, most of the proposals under the
7 actual government are connected to the agribusiness caucus, a historic opponent of the
8 democratization of access to land in Brazil as widely evidenced (Torres *et al.* 2017; Opas *et*
9 *al.* 2018; Oliveira 2021; Urzedo and Chatterjee 2021). According to Rajão *et al.* (2020) a
10 small but very destructive portion of the sector poses a threat to the economic prospects of
11 Brazil's agribusiness, in addition to causing regional and global environmental consequences.
12 The proposal for a ministerial structure also tried to eliminate competences over the national
13 natural heritage, whether forests or water resources, and the climate agenda, from the Ministry
14 of Environment, subordinating them to other ministries, in addition to prohibiting the
15 participation of civil society in various councils and collegiate guiding public policies^{11, 12, 13}.
16 The second restructuring of the Ministry of the Environment during the current government
17 (2019-2022), which took place in 2020, created a specific unit for the theme of concessions,
18 something exceptional in the history of the ministerial structure. In July 2020, an action by the
19 Federal Public Prosecutor's Office¹⁴ requested immediate removal of the secretary for the
20 environment due to administrative improbity, pointing to responsibility for the regulatory
21 disorder through legal and infra-legal changes, the dismantling of transparency and of social
22 participation bodies in resource allocation and inspection processes. He was considered by the
23 Federal Public Prosecutor's Office directly responsible for the dismantling of the country's

¹¹ O que muda (ou sobra) nas políticas socioambientais com a reforma de Bolsonaro? Veja toda a série. 14/02/2019. Instituto Socioambiental. <https://isa.to/2YcWmWI>.

¹² Brasil, 2019. Decreto Federal Nº 9.759, DE 11 DE ABRIL DE 2019.

¹³ Brazil dismantles environmental laws via huge surge in executive acts: Study. Mongabay. 2020. <https://isa.to/2QkOWhq>

¹⁴ Ministério Público Federal pede afastamento de Ricardo Salles do Ministério do Meio Ambiente por Improbidade Administrativa. 06/07/2020. AÇÃO CIVIL DE IMPROBIDADE ADMINISTRATIVA - Réu: Ricardo de Aquino Salles. 8ª Vara de Justiça federal 1037665-52.2020.4.01.3400. Disponível em: <https://isa.to/2PJavbu>.

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1 environmental protection system, which caused an increase in deforestation, fires, illegal
2 mining and land grabbing, emptying the Ministry of its legal precepts.

3 Still, in 2020, further reorganizations assigned to the Brazilian army the fight against
4 environmental crimes in the Amazon, a role previously played successfully by IBAMA and
5 ICMBio, bodies responsible for the conception and operationalization of a system of integral
6 inspection that led to the historical reduction of deforestation between 2004 and 2009, and the
7 demobilization of the logistics of the criminal network involved. Since 2014, the public
8 investments in environment issues have declined, and the PAs were directly affected by this
9 trend: the coordinated audit in Amazon conservation units carried out by the Federal Audit
10 Court pointed out that only 4% of federal and state conservation units in the Legal Amazon
11 had a high degree of implementation, indicating the insufficiency of financial resources as one
12 of the main causes of this situation¹⁵. Nevertheless, according to historical analysis of the
13 mandatory and discretionary budget for the Ministry of the Environment and related entities,
14 the expenditure forecast for 2021 is the lowest in two decades, with a 27.4% drop in the
15 federal budget for environmental inspection and fighting forest fires in comparison with what
16 was authorized in 2020 and 34.5% compared to 2019¹⁶.

17 Also, in recent years, a perception of impunity led to increased illegal activities such as
18 deforestation and gold mining which drive violence in the countryside, which grew 23% from
19 2018 to 2019, adding up to more than 1,800 conflicts, a record since 1985¹⁷. In the last six
20 years Brazil was among the most lethal countries for environmental activists¹⁸. In 2019, the
21 highest deforestation rate in the last ten years was recorded in the Legal Amazon and
22 preliminary data already indicate that in 2020¹⁹ the situation is likely to worsen. Illegal mining
23 has also intensified throughout the Amazon: in mid-2020, in the Yanomami IT alone, an
24 estimated 20,000 invaders were estimated, who, in the context of the Covid-19 pandemic

¹⁵ Amazônia: unidades de conservação : auditoria coordenada / Tribunal de Contas da União. Brasília: TCU, 2014.

¹⁶ PASSANDO A BOIADA”. O segundo ano de desmonte ambiental sob Jair Bolsonaro. Observatório do Clima, janeiro/2021. Disponível aqui: <https://isa.to/3evyus6>.

¹⁷ Comissão Pastoral da Terra. 2020. Conflitos no Campo Brasil 2019. <https://isa.to/2F7OwIW>

¹⁸ Globalwitness Annual Reports. <https://isa.to/2CWbaDy>

¹⁹ Instituto Nacional de Pesquisas Espaciais. Prodes - Monitoramento do Desmatamento da Floresta Amazônica Brasileira por Satélite. <http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/prodes>

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1 would have the potential to contaminate nearly 40% of the Yanomami who they lived close to
2 in the illegal mining areas, a situation denounced by indigenous organizations in the National
3 Human Rights Council of the ICHR²⁰

4 *Peru*

5 As of 1978, the New Law of Native Communities grants ownership to native communities
6 only of those areas that prove to be suitable for agriculture in their demarcated territory, while
7 lands suitable for forestry and protection remain under the ownership of the State, however
8 they are ceded in perpetuity to the communities. These actions take place within the
9 framework of the Forestry and Wildlife Law, enacted in 1975, one year after the previous Law
10 of Native Communities. The Forestry Law, in order to conserve tropical forests, states in its
11 article 1 that "Forest resources and wildlife are in the public domain and there are no acquired
12 rights over them", which implies that land titling of and with forestry aptitude cannot be
13 granted, reserving said lands for the State. From the perspective of indigenous organizations,
14 this constituted a direct violation of the rights of indigenous peoples, since on the one hand the
15 economy of these peoples in the Amazon depends largely on the extensive use of the forest
16 and, on the other, practically all the lands of the great plain of the Peruvian Amazon are of
17 "forestry aptitude", being therefore, excluded from being granted in private property to the
18 indigenous peoples. Likewise, the territorial rights of indigenous peoples are only
19 concentrated in the lands, not having any rights over forests, bodies of water and the subsoil
20 which continue to be the property of the nation. The processes of recognition and titling of
21 communal lands were institutionalized as of 1975 with the Law of Native Communities. In the
22 first decade of its observance, only small communal areas were titled, and it was from the mid-
23 1980s that due to pressure from indigenous organizations and supporting organizations, the
24 communities succeeded in titling larger spaces (up to 500 km²), and nowadays hold an
25 important fraction of the region (see Section 2.2.2 of this Chapter). However, the titling
26 processes have continued to be slow due to several reasons, among others, successive
27 regulatory adjustments that have legal loopholes or excessively complicate the titling
28 processes. This has generated numerous socio-environmental conflicts motivated by the

²⁰ Comissão Interamericana de Direitos Humanos Resolução 35/2020. Medida Cautelar No. 563-20.
<https://isa.to/3fRRoGz>

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1 overlapping of various rights, mostly extractive concessions, and easements on the
2 communities' territories.

3 **1.3. Conflicting policies and threats to protected areas and indigenous territories**

4 In all the Amazon countries, the transfer of ownership in favor of individual or communal
5 owners can be reversed if a priority interest for the nation is alleged. In fact, the most common
6 conflict that occurs in recognized territories is due to the overlapping of concessions for
7 extractive industries or infrastructure, which impacts their rights in various ways (see Chapter
8 16). According to Convention 169 of the International Labor Organization and the United
9 Nations Declaration on the Rights of Indigenous Peoples, the indigenous peoples are entitled
10 to be consulted by States through culturally appropriate procedures, through a process called
11 Free, Prior and Informed Consent (FPIC) on all laws, projects, strategies or other works that
12 affect their territories and their lives. As an international legal framework, both Convention
13 169 and the UN Declaration affirm that the objective of consulting Indigenous Peoples is to
14 obtain their agreement or consent. The consulted indigenous peoples should have the
15 possibility to modify the initial plan, and the States have two important duties. 1. The duty of
16 accommodation: it is the duty to adjust or even cancel plans or projects based on the results of
17 the Consultation process. When it does not comply with this duty of accommodation, the State
18 must provide objective and reasonable justifications for not having done so. 2. The duty to
19 approve reasoned decisions: although not all consultation processes seek consent, this does not
20 reduce them to a simple formality. States should take into consideration the concerns,
21 demands and proposals of the impacted indigenous peoples, and consider them in the final
22 design of the plan or project being consulted.

23 The reality is that due to the absence of clear regulations at the national level, in most cases
24 the consultation process is reduced to a mere notification or informing of decisions already
25 taken, or it is carried out by dividing indigenous organizations. The news about this type of
26 conflict is frequently found in the public media in the region.

27 In the *Amazonia Under Pressure Atlas* (RAISG 2020), the pressures exerted on indigenous
28 territories and protected natural areas due to the advances of extractive activities and
29 infrastructure development (i.e., energy and roads) are systematically analyzed. The analysis

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1 shows that in the case of protected natural areas, 51% of their extension is under some type of
2 pressure, the majority with moderate or low rates. The panorama is similar in indigenous
3 territories, 48% of which experience pressure, with a third of indigenous lands having more
4 than half of their area with high and very high rates of pressure.

5 These regional data of course present differences by country, and although the *Atlas* (RAISG
6 2020) indicates Ecuador as the most dramatic case due to the prevalence of moderate, high and
7 very high pressure rates in its indigenous territories and protected natural areas, there are
8 conflicts in the indigenous territories and protected areas of all Amazon nations.

9 The expansion of the agricultural frontier is another driver of change towards protected areas.
10 The *Atlas* (RAISG 2020) indicates that between 2001 and 2018 the increase in new areas of
11 agricultural use within the protected natural areas was more than 220%, transforming 53,269
12 km² inside protected areas, 74% of which had forest cover in 2000. Sixty-four percent of this
13 conversion took place in departmental PA of direct use, a category that represents 33% of the
14 total protected extent in the region. Despite PA of direct use can allow the sustainable use of
15 resources, the question here is forest conversion. Considering that across the basin, the growth
16 of departmental PA was greater in the last 20 years than that of the national PA (142% and
17 101%, respectively) (Section 2.1. this Chapter), both this trend and the conversion inside
18 should be a matter of concern. The increase in deforestation has also occurred on indigenous
19 territories where 42,860 km² were converted into new areas of agricultural use, of which 71%
20 were forests in 2000. Despite fluctuations over this period (2000-2018), the figures of annual
21 deforestation in IT varied between 1,000 and 1,700 km² until 2016, but in 2017 and 2018, with
22 values of 2,500 km² and 2,600 km² respectively, they exceed all the annual values that
23 preceded, including the 2004 peak (MAPBIOMAS 2020)-

24 Many of these transformations begin illegally with the invasion or land grabbing by external
25 agents, who then try to regulate the property. This situation highlights the need for greater
26 controls over land use, the urgent need of rural cadasters and the improvement of production
27 practices that increase productivity to avoid the encroachment, and foremost the adequate
28 management of areas designated for protection or sustainable management.

1 **2. COMPARATIVE PATTERNS OF FOREST CONVERSION AND DEGRADATION**
2 **WITHIN PROTECTED AREAS AND INDIGENOUS TERRITORIES AND**
3 **LANDS OUTSIDE**

4 Unlike protected areas, whose main objective is biodiversity conservation, indigenous
5 territories aim to safeguard the rights of indigenous peoples to their lands and livelihoods for
6 social, cultural and equity reasons (Maretti *et al.* 2014). However, there is sufficient evidence
7 in the scientific literature to corroborate that the Indigenous Peoples of the Amazon play a
8 measurable and significant role in the maintenance of forests, thus reducing forest carbon
9 emissions and mitigating climate change (Ricketts *et al.* 2010). Several studies have shown
10 that indigenous territories in the Amazon act as buffers for external pressures associated with
11 the expansion of the agricultural frontier, reducing deforestation (Oliveira *et al.* 2007; Soares-
12 Filho *et al.* 2010; Schwartzman *et al.* 2013; Stevens *et al.* 2014; Jusys 2018) and the
13 occurrence of fires (Nepstad *et al.* 2006), compared to the areas outside its limits. Between
14 2000 and 2018, 87% of the total deforested area was located outside indigenous territories and
15 protected areas and 13% within their limits (MAPBIOMAS 2020), even though these units
16 collectively cover more than half of the region's forests (Walker *et al.* 2020). Blackman and
17 Veit (2018) combined regression analysis and cross-sectional correspondence to estimate
18 avoided deforestation and carbon emissions attributable to indigenous management. The
19 authors found that Indigenous Peoples' land use practices reduced deforestation and associated
20 carbon emissions.

21 In RAISG's Atlas (2020), the analysis of deforestation from 2000 to 2018 indicates that as of
22 2015 there is a clearly upward deforestation trend in the Amazon, after having reached its
23 lowest point in 2010. Although 87% of the deforestation that occurred in the period took place
24 outside of protected areas and indigenous territories, respectively 8% and 5% occurred in these
25 units and the data indicate that 2017 and 2018 were the worst years. With regard to the status
26 of recognition of indigenous territories, previous RAISG analyses (2016) found that
27 deforestation in indigenous territories without legal recognition increased more than 50%
28 between the 2000-2005 period and the 2010-2015 period. Other publications have analyzed
29 the effectiveness to reduce deforestation between those territories that are legally recognized
30 and those that are not and have concluded that the legal and full recognition of their collective

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1 rights is a significant cause for the decrease in deforestation rates within indigenous territories
2 (Blackman *et al.* 2017; Baragwanath and Bayi 2020).

3 An analysis focused on carbon gains and losses in the Amazon during the 2003-2016 period
4 (Walker *et al.* 2020), using an update of the data originally published by Baccini *et al.* (2017)
5 and disaggregating the losses into those attributable to the conversion of forests (deforestation)
6 and those due to anthropogenic degradation and natural disturbances, had similar findings.
7 Land outside indigenous territories and protected areas (i.e. “Other Land”) accounted for about
8 70% of the total carbon losses and almost 90% of the net change, in less than half of the total
9 land area. In contrast, IT and PNAs, in more than half of the land area, accounted for only
10 10% of the net change, and 86% of losses on those lands are offset by gains through forest
11 growth. Thus, there was a nine-fold difference in net carbon loss outside indigenous territories
12 and protected natural areas (-1 160 MtC) compared to inside (-130 MtC). The authors suggest
13 that the continued regeneration of forests in indigenous territories has allowed these lands to
14 offset emissions from degradation and disturbance (Walker *et al.* 2020).

15 **3. COMPLEMENTARY CONSERVATION STRATEGIES**

16 **3.1. Conservation including people**

17 *3.1.1. Communal lands in the National System of Conservation Units of Brazil*

18 To the 12 categories of protected areas recognized by Brazil’s SNUC, and which correspond
19 to the IUCN classification, can be added other specific ones created at the state level²¹. The
20 domain and concession of the land, the possibility and intensity of use of resources and the
21 degree of conversion of the environment are important guiding axes of the system and vary
22 between these categories. Among them, the Extractive Reserve (Resex, acronym in
23 Portuguese), an innovation that arose from the struggle of the organized rubber tappers'
24 movement assisted by partners to deal with the unfair land concentration in Brazil, deserves
25 special mention.

²¹ Brasil, 2000. Lei Federal No 9.985, DE 18 DE JULHO DE 2000 e Decreto Federal N° 4.340, DE 22 DE AGOSTO DE 2002.

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1 In a context of opposition to the exploitation of family work in the rubber plantations of Acre,
2 the appropriation of public lands and the clearing of native forests, in 1985 the 1st National
3 Meeting of Rubber Tappers was held in Brasília, the first articulation of greater evidence at the
4 national scene. It is when the National Council of Rubber-tappers is created, of which Chico
5 Mendes becomes president in 1988, extending alliance cycles, spanning the Green Party,
6 Brazilian and foreign non-governmental organizations and the Union of Indigenous Nations,
7 led by Aílton Krenak, with whom Chico launches the "Alliance of the Peoples of the Forest"
8 (Almeida 2004). The political and intellectual boldness of the unions and associations stands
9 out, which, based on the systematic reconcentration of land in areas of agrarian reform,
10 propose an innovative model that rejects individual property titles, affirming the collective
11 right to land and the traditional extractivists occupation rights (Allegretti 2008), an innovation
12 that proved capable to guarantee the local governance of resources, implementing adaptive
13 governance model of complex systems and a robust institutional arrangement (Dietz *et al.*
14 2003).

15 At the same time but in a different territory, the concept of the Sustainable Development
16 Reserve (RDS acronym in Portuguese) arises from the mobilization on ecological demands
17 from riverside communities to ban commercial fishing from their territories, which intensified
18 unequal competition, leading to exhaustion resources and affecting the local way of life (Lima
19 and Peralta 2017)- Its own terminology reflects the historical context of its creation: a post-Rio
20 Summit-92 context, where the attempt to combine conservation and development
21 predominated. Located in the state of Amazonas, RDS Mamirauá was the first of its category
22 in Brazil (Lima and Peralta 2017). Meetings between nuclei of social movements with
23 different trajectories and livelihoods were weaving the possibility of articulation at the
24 national level, spreading the idea of these communal reserves throughout Brazil. Currently, in
25 Brazil, the Extractive Reserve is present in 19 states and the RDS in eight, especially in the
26 Amazon and along the coast, contributing to guarantee the collective rights of populations
27 with diverse organizations and ways of life, such as rubber tappers, fishermen and artisanal
28 fishermen, shellfish gatherer, Brazil-nut and babaçu gatherers, among others. Currently, there
29 are 77 Resex and 26 RDS in the Brazilian Amazon, representing about 3% and 2.3% of this

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1 territory, respectively. Besides, according to the Ministry of the Environment (2015)²², there
2 were 199 proposals for the creation of new federal PA, 97 of which were Extractive Reserve
3 and 14 Sustainable Development Reserve all over the country, and 72 were proposed for the
4 Amazon.

5 **3.2. Ecological and sociocultural connectivity policies in the region**

6 *3.2.1. Connectivity as an object of conservation*

7 Ecological connectivity refers to the uninterrupted movement of species and the flow of
8 natural processes that sustain life on Earth (Taylor *et al.* 1993), a condition without which
9 ecosystems cannot function adequately. Therefore, without it, biodiversity and other essential
10 elements for life are put at risk.

11 Since the 1970s, the way in which isolated areas of the forest lose their functionality and their
12 biological diversity tends to deteriorate has been proven, with serious consequences for
13 ecosystems, their functioning, their regulatory capacity, and therefore environmental services
14 (Tollefson 2013). Furthermore, connectivity decreases the rate of extinction, enabling species
15 transit, seed dispersal, gene flow, and colonization of suitable sites (Noss 1992). Along with
16 this, it facilitates seasonal and daily migrations between a variety of habitats, contributes to the
17 preservation of biodiversity and ecosystems, and to the protection of water resources, to
18 balancing the climate and to the recovery of the landscape (Beier and Noss 1998), all of which
19 are key conditions to enable adaptation in a climate change context.

20 Although a significant percentage of protected areas are not connected, those that are
21 connected may be connected by nearby or continuous protected areas, or by unprotected areas.
22 The loss of biodiversity within protected areas continues to be high due to the possible lack of
23 connectivity with other protected areas, limiting or impeding the interaction with other
24 populations and natural habitats (Saura *et al.* 2017).

25 Thus, it is widely recognized that increasing connectivity in protected area systems is the most
26 urgent and challenging task for conservation strategies and programs. Numerous studies that

²² Data requested by the Instituto Socioambiental to the Brazilian Ministry of Environment through protocol 02680000839201556

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1 have analyzed the representativeness and connectivity of protected area systems at a global
2 level have found that although 15% of the land is under some form of protection
3 corresponding to categories I to IV of the IUCN, only 7.5 to 9.3% of the land has well-
4 connected protected area systems (Castillo *et al.* 2020). To address the global challenge of
5 managing well-connected protected area systems, it is important to re-evaluate the different
6 categories of protected areas and the very conception of national protected areas systems,
7 since the range of possible figures that contribute to connectivity may be being restricted
8 (Saura *et al.* 2017). For this reason, there is a need to speak of ecological networks for
9 conservation understood as “a system of habitats (protected areas, other effective conservation
10 measures, and other intact natural areas) connected by ecological corridors, which is
11 established, restored (if necessary) and maintained to conserve biological diversity in systems
12 that have been fragmented” (International Union for Conservation of Nature 2020).

13 In addition to public lands and protected areas, measures involving private properties also play
14 an important role in landscape connectivity, as is the case in Brazil, notwithstanding
15 substantial changes that weakened Brazil's Forest Code in 2012. In Brazilian Amazonia, 80%
16 of each property in forest areas and 35% in savannah areas are protected under this law, unless
17 the municipality has already over 50% of its area occupied by conservation units or indigenous
18 lands²³.

19 3.2.2. Recognition of the contribution of indigenous territories to connectivity

20 The discussion regarding area-based goals has been a central element in the framework of the
21 formulation of the new global biodiversity goals, since it has been suggested that many of the
22 countries may be overestimating their areas under protection and management, reporting the
23 percentage of territory under some form of, not necessarily effective, protection (Coad *et al.*
24 2019; Castillo *et al.* 2020). In this context, it is important to value not only areas under
25 existing IUCN categories that allow the sustainable use of natural resources, but also other
26 effective area-based conservation measures, understood as territories that provide effective

²³ LEI Nº 12.651, DE 25 DE MAIO DE 2012. Dispõe sobre a proteção da vegetação nativa; altera as Leis nºs 6.938, de 31 de agosto de 1981, 9.393, de 19 de dezembro de 1996, e 11.428, de 22 de dezembro de 2006; revoga as Leis nºs 4.771, de 15 de setembro de 1965, e 7.754, de 14 de abril de 1989, e a Medida Provisória nº 2.166-67, de 24 de agosto de 2001; e dá outras providências. <https://isa.to/3lRdRZf>

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1 conservation through various governance and management regimes even though conservation
2 may not be its primary management objective (International Union for Conservation of Nature
3 2019).

4 The negotiations of the new post 2020 Framework of the Convention on Biological Diversity,
5 as well as the IPBES Global Report published in 2019, constitute global frameworks that
6 privilege the importance of connectivity, as well as the role of indigenous peoples in the
7 protection of biodiversity. To date, negotiations (OEWG1 and OEWG2) of the post 2020 CBD
8 Framework have raised key elements for the full recognition of the contribution of indigenous
9 territories to the protection of biodiversity. Evidence of this is collected in Goals 1 and 2,
10 which address area-based goals, reiterating the importance of talking about a) a system of
11 protected areas instead of protected areas as isolated units to promote a vision of ecosystem
12 connectivity, b) including cultural diversity as well as biological diversity, c) including other
13 effective area-based measures, d) strengthening the importance of effective management (Zero
14 Draft CBD, 2020). These elements reflect the interest in considering both quantitative and
15 qualitative aspects, to determine how to constitute ecologically representative and well-
16 connected systems of protected areas.

17 *3.2.2. Connectivity in the Amazon*

18 The widespread interest in raising the commitment of countries with respect to the protection
19 of biodiversity through area-based strategies (previously Aichi Target 11) to 30% in marine
20 and terrestrial areas of the Earth by 2030, presents an opportunity to position the contribution
21 made by indigenous territories to the protection of biodiversity and to consolidate a vision of
22 safeguarding macro-regional connectivity in the Amazon. The articulation between protected
23 areas and indigenous territories constitutes a strategy within the framework of which
24 sustainable-use landscapes, conservation corridors, community based conservation areas, and
25 the recognition of other effective conservation measures can be established.

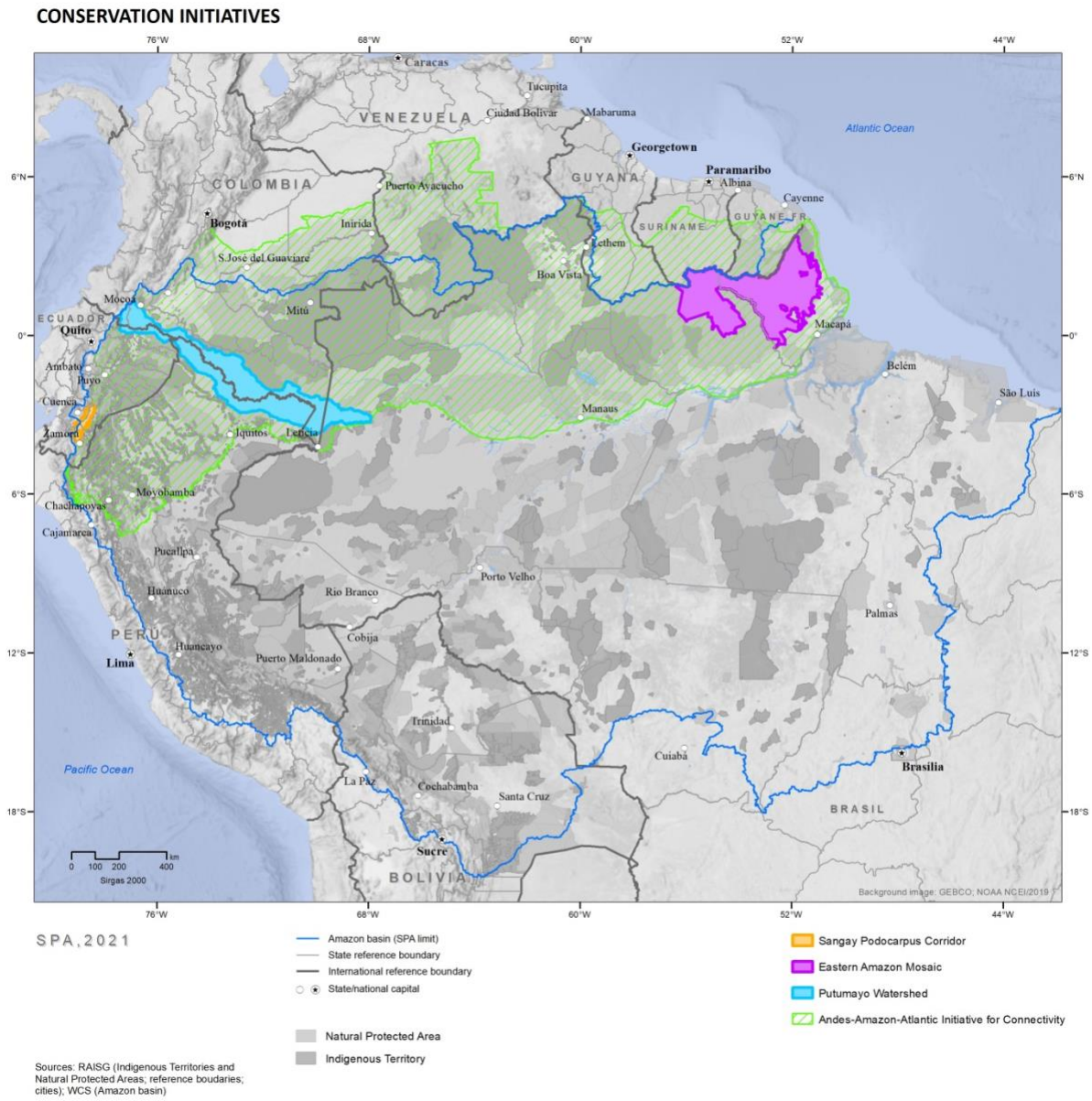
26 The Amazon has the necessary elements to consolidate connectivity through the coordination
27 of a diversity of figures related to conservation such as protected areas, indigenous territories
28 and forest reserves, extractivist reserves, and complementary strategies such as connectivity
29 corridors, among others. In fact, if indigenous territories are included, 50% of the basin is

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1 under some type of recognized or legal protection figure (RAISG 2020 and this Chapter),
2 acknowledging that the Amazon is among the world's biomes that have a high connectivity
3 index (Saura *et al.* 2017). The sum of the efforts that each Amazon country has made
4 independently and as a result of the adoption and ratification of a series of binational and
5 international agreements constitutes the basis for maintaining connectivity and guaranteeing
6 the functions of the Amazon ecosystems, which are key to the regulation of global climate and
7 protection of biodiversity. However, the continuous transformation of natural landscapes in
8 key areas such as the Andean-Amazon foothills not only affects current connectivity indices,
9 but also compromises the future of the system of protected areas as a network (Castillo *et al.*
10 2020):

11 International frameworks (post 2020 CBD Framework) have emphasized the importance of
12 building comprehensive conservation plans for large ecoregions or sets of adjacent ecoregions,
13 which are key to formulating global goals (Woodley *et al.* 2019). For this reason, today more
14 than ever the continuous work that has been carried out in the region by civil society
15 organizations and governments is relevant. This work has resulted in the formulation, design
16 and implementation of a series of conservation projects and initiatives, policies, and models to
17 ensure the integrity of this region.

18 Due to the close relationship between indigenous peoples' ancient system for land
19 management and the comparatively good state of forest in IT, key actors in the region have
20 raised the need to broaden the perspective of connectivity according to this context, towards
21 ecological and socio-cultural connectivity (BOX 2). This concept is defined by the
22 connections that maintain ecological flows and the representation of the local habitat network
23 necessary for maintaining landscape permeability, biodiversity, the water cycle, climate
24 balance and the system's resilience as a whole.



1

2

3 **4. CONCLUSIONS**

4 The eight countries of the Basin have traversed a long and fruitful path in recognizing the
 5 importance of protecting the biological diversity and associated ecological processes and
 6 services of their Amazon regions. After more than 60 years of conservation policies, the
 7 Amazon has 25% of its area under some category of protection, with percentages ranging from

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1 21% to 51% depending on the country. Many of them are classified as megadiverse countries
2 at a global level thanks to their Amazon territory, and the evolution of these concepts, as well
3 as their importance in the global context, has been permeating both society and the elected
4 governments. Even with some differences, society and governments have progressed in the
5 development of policies for the declaration, administration, management, planning and
6 financing of systems of protected natural areas.

7 When analyzing the recent historical contexts that have generated the most prolific periods in
8 the declaration of conservation units, we see that many of them are linked, as perhaps is
9 natural in history, to the influence of international political currents and the actions of actors
10 and groups convinced, in this case, of the need to protect biodiversity, its inherent processes
11 and the services it generates for humanity. This has in some way exerted pressure for
12 governments in the region to enact laws and regulatory frameworks favorable to conservation
13 and sustainable development. We must not forget that this region was simultaneously the last
14 frontier in the process of occupation of national territories, and that in the conception of the
15 dominant culture, it was considered an empty space to be occupied for the extraction of
16 renewable and non-renewable resources and the expansion of productive activities and
17 colonization spaces.

18 However, the Amazon is not only forests and exuberant biodiversity, but is occupied and has
19 been for centuries, by a myriad of peoples who have lived there and sustained themselves from
20 the area in practically symbiotic ways, developing ways of using space and the resources that
21 effectively took advantage of all that diversity, and this is the other reality that the Amazon
22 countries and their dominant and mestizo societies have had to face and resolve with respect to
23 this territory. It is in this context that the legal framework for the recognition of the rights of
24 Indigenous Peoples is also evolving, including the right to their territories. This process has
25 been more difficult and rugged, but there has also been progress, although 27% of the Amazon
26 territory formally recognized for Indigenous Peoples is far from the extensions of ancestral
27 occupation that they claim. Besides the local, organized struggle of these peoples that has
28 made the achievements in terms of rights of possession of their communal lands possible,
29 there are advances in international legal frameworks regarding indigenous rights, which
30 facilitate formal spaces for demands and pressure in the face of injustices committed, or to

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1 gain participation in decisions that directly touch on their rights. The former are numerous,
2 since the recognition of their rights to land is not complete, nor includes ownership of subsoil
3 resources, and this has been one of the major causes of conflicts. Furthermore, the use of
4 resources by others has generally left behind the worst part: pollution, transculturation and
5 very little of the wealth generated for the nation, even in the form of health, sanitation,
6 education and the development of capacities to function in an ever-changing reality.

7 Despite all this, the recent information that can be derived thanks to the maintenance of better
8 records of the extension and of what happens in the PAs and in the ITs, clearly shows
9 evidence that the indigenous territories have worked as well as protected areas to stop the
10 advance of deforestation in the Amazon. In the face of the imminent threats of climate change,
11 the protection given by Indigenous Peoples to the forests in their territories is an invaluable
12 service to humanity and not currently recognized the way it should be.

13 In a world that is increasingly connected in every way, where in addition to the production of
14 commodities and raw materials, the growing illegality also plays a disruptive role in the
15 Amazon, it is not enough to recognize indigenous territories or the extension of declared lands
16 as protected. The changes can be risky and therefore it is necessary for these areas, new,
17 transparent, participatory, proactive, creative forms of management that, based on knowledge,
18 ensure a management of these territories that leads to the safeguarding of key services at
19 national and global scales for climate change mitigation, while ensuring the protection of
20 biodiversity and enhancing benefits for indigenous communities.

21 **5. RECOMMENDATIONS**

22 The Amazon is one of the biomes with the largest proportion of protected area in the form of
23 protected areas of different categories, other effective area-based conservation measures, and
24 undesignated intact natural areas, but an evaluation of the effectiveness of conservation
25 measures, indicates that what is mostly lacking in the Amazon is the implementation of an
26 integral conservation vision, where PAs together with other effective area-based conservation
27 measures (OECMs) are seen as ecological networks for conservation and planned with well-
28 defined goals for biodiversity and ecosystem services conservation, co-managed with the local

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1 communities, and involving private stakeholders and other sub-national and local forms of
2 government.

3 Regarding the ITs, the need for more concrete actions to protect them, such as the full
4 recognition of the territories and the strengthening of territorial governance as one of the most
5 important strategies to maintain forests and mitigate the impacts of COVID-19 in the
6 indigenous territories of the Amazon.

7 More balanced and direct funding, and capacity building, for Indigenous Peoples'
8 organizations and communities is essential to provide the necessary resources and thus
9 continue to conserve these important forests.

10 **6. REFERENCES**

11 ACIMA - Asociación de Capitanes Indígenas del Mirití Amazonas. 2018. Sistema de
12 Ordenamiento Ambiental. Amazonas, Colombia.

13 Allegretti M. 2008. A construção social de políticas públicas. Chico Mendes e o movimento
14 dos seringueiros. *Desenvolv e Meio Ambient* **18**.

15 Almeida MWB de. 2004. Direitos à floresta e ambientalismo: seringueiros e suas lutas. *Rev*
16 *Bras Ciências Sociais* **19**: 33–52.

17 Andrade MB, Ferrante L, and Fearnside PM. 2021. Brazil's Highway BR-319 demonstrates a
18 crucial lack of environmental governance in Amazonia. *Environ Conserv*: 1–4.

19 Araújo SMVG de. 2020. Environmental Policy in the Bolsonaro Government: The Response
20 of Environmentalists in the Legislative Arena. *Brazilian Polit Sci Rev* **14**.

21 Araújo E, Martins H, Barreto P, *et al.* 2012. Redução de áreas protegidas para a produção de
22 energia. *Imazon-Instituto do Homem e Meio Ambient da Amaz Belém*: 14.

23 Baccini A, Walker W, Carvalho L, *et al.* 2017. Tropical forests are a net carbon source based
24 on aboveground measurements of gain and loss. *Science* **358**: 230–4.

25 Baragwanath K and Bayi E. 2020. Collective property rights reduce deforestation in the

Chapter 16

- 1 Brazilian Amazon. *Proc Natl Acad Sci* **117**: 20495–502.
- 2 Bass MS, Finer M, Jenkins CN, *et al.* 2010. Global conservation significance of Ecuador’s
3 Yasuní National Park. *PLoS One* **5**: e8767.
- 4 Beier P and Noss RF. 1998. Do habitat corridors provide connectivity? *Conserv Biol* **12**:
5 1241–52.
- 6 Bernard E, Penna LAO, and Araújo E. 2014. Downgrading, downsizing, degazettement, and
7 reclassification of protected areas in Brazil. *Conserv Biol* **28**: 939–50.
- 8 Blackman A, Corral L, Lima ES, and Asner GP. 2017. Titling indigenous communities
9 protects forests in the Peruvian Amazon. *Proc Natl Acad Sci* **114**: 4123–8.
- 10 Blackman A and Veit P. 2018. Titled Amazon Indigenous Communities Cut Forest Carbon
11 Emissions. *Ecol Econ* **153**: 56–67.
- 12 Brazilian Federal Public Prosecutor’s Office. 2019. Federal Public Prosecutor’s Office - Court
13 of the Judicial Section of Tocantins. Administrative Procedure n. 1.16.000.000125/2018-
14 51. Civil Inquiry n. 1.36.002.000017/2018-76. Added one confirmed record and one TI to
15 the survey published in Ricardo, F. &.
- 16 Buitrago FL. 2002. La seguridad nacional a la deriva del frente nacional a la posguerra fría.
17 Alfaomega grupo editor.
- 18 Castillo LS, Correa Ayram CA, Matallana Tobón CL, *et al.* 2020. Connectivity of Protected
19 Areas: Effect of Human Pressure and Subnational Contributions in the Ecoregions of
20 Tropical Andean Countries. *Land* **9**: 239.
- 21 CBD. 2020. Zero Draft of post-2020 biodiversity framework. Rome.
- 22 Coad L, Watson JE, Geldmann J, *et al.* 2019. Widespread shortfalls in protected area
23 resourcing undermine efforts to conserve biodiversity. *Front Ecol Environ* **17**: 259–64.
- 24 Dietz T. 2003. The Struggle to Govern the Commons. *Science* **302**: 1907–12.
- 25 Dietz T, Ostrom E, and Stern PC. 2003. Online Supplement to T. Dietz, E. Ostrom, & P. C.

Chapter 16

- 1 Stern. *Science* **302**: 1–15.
- 2 Dowie M. 2009. Conservation refugees: the hundred-year conflict between global
3 conservation and native peoples. Cambridge: MIT press.
- 4 Dudley N. 2008. Guidelines for applying protected area management categories. Iucn.
- 5 Escobar H. 2018. Scientists, environmentalists brace for Brazil's right turn. *Science* **362**: 273–
6 4.
- 7 Ferrante L and Fearnside PM. 2019. Brazil's new president and 'ruralists' threaten
8 Amazonia's environment, traditional peoples and the global climate. *Environ Conserv* **46**:
9 261–3.
- 10 Ferreira J, Aragão L, Barlow J, *et al.* 2014. Brazil's environmental leadership at risk. *Science*
11 **346**: 706–7.
- 12 Field Museum de Chicago. 2020. Corredor de Conservación Biológico y Cultural Putumayo.
13 Inédito.
- 14 Fuller RA, McDonald-Madden E, Wilson KA, *et al.* 2010. Replacing underperforming
15 protected areas achieves better conservation outcomes. *Nature* **466**: 365–7.
- 16 Fundación Gaia Amazonas. 2020a. Conectividad Andes Amazonas Atlántico.
- 17 Fundación Gaia Amazonas. 2020b. Sistematización de experiencias de investigación endógena
18 llevada a cabo entre los años 2002-2018, en los Territorios Indígenas del Pirá Paraná y el
19 Tiquié, Vaupés, Colombia.
- 20 Geldmann, J., Coad, L., Barnes, M. D., Craigie, I. D., Woodley, S., Balmford, A., ... &
21 Burgess, N. D. (2018). A global analysis of management capacity and ecological
22 outcomes in terrestrial protected areas. *Conservation Letters*, *11*(3), e12434.
- 23 Hockings M, Leverington F, and Cook C. 2015. Protected area management effectiveness. In:
24 Worboys G, Lockwood M, Kothari A, *et al.* (Eds). Protected Area Governance and
25 Management. ANU Press, Canberra.

Chapter 16

- 1 Hockings M, Stolton S, and Leverington F. 2006. Evaluating effectiveness : a framework for
2 assessing management effectiveness of protected areas, 2nd edition.
- 3 Instituto de Pesquisa e Formação Indígena – Iepé. 2017. Mosaico de áreas protegidas do oeste
4 do Amapá e norte do Pará.
- 5 International Union for Conservation of Nature. 2019. World Commission on Protected Areas
6 (WCPA) and Assurance Services International (ASI). In: IUNC Green List of Protected
7 and Conserved Areas: User Manual v1.2. Gland: IUCN.
- 8 International Union for Conservation of Nature. 2020. A standard of success for protected and
9 conserved areas in the Amazon Viewed
- 10 IUCN, WCPA, and ASI. 2019. IUCN Green List of Protected and Conserved Areas: User
11 Manual.
- 12 Jusys T. 2018. Changing patterns in deforestation avoidance by different protection types in
13 the Brazilian Amazon. *PLoS One* **13**: e0195900.
- 14 Kareiva P. 2010. Trade-in to trade-up. *Nature* **466**: 322–3.
- 15 Lima DDM and Peralta N. 2017. Developing sustainability in the Brazilian Amazon: twenty
16 years of history in the Mamirauá and Amanã reserves. *J Lat Am Stud* **49**: 799–827.
- 17 López-Acevedo V, Aragón-Osejo J, and Ulloa J. 2015. Cartografía histórica de las Áreas
18 Naturales Protegidas y los Territorios Indígenas de la Amazonía Ecuatoriana.
- 19 MAPBIOMAS. 2020. Mapbiomas Amazonia <https://amazonia.mapbiomas.org/en>. Viewed 28
20 Apr 2021.
- 21 Maretti CC, Riveros SJC, Hofstede R, *et al.* 2014. State of the Amazon: ecological
22 representation in protected areas and indigenous territories.
- 23 Mascia MB, Pailler S, Krithivasan R, *et al.* 2014. Protected area downgrading, downsizing,
24 and degazettement (PADDD) in Africa, Asia, and Latin America and the Caribbean,
25 1900--2010. *Biol Conserv* **169**: 355–61.

Chapter 16

- 1 Maxwell SL, Cazalis V, Dudley N, *et al.* 2020. Area-based conservation in the twenty-first
2 century. *Nature* **586**: 217–27.
- 3 Navarrete S. 2018. Protocolo y guía metodológica para medición de efectividad del manejo
4 del bioma amazónico. Bogotá, Colombia.
- 5 Nepstad D, Schwartzman S, Bamberger B, *et al.* 2006. Inhibition of Amazon deforestation and
6 fire by parks and indigenous lands. *Conserv Biol* **20**: 65–73.
- 7 Noss R. 1992. The Wildlands Project: Land Conservation Strategy. Environmental Policy and
8 Biodiversity.
- 9 Oliveira AU de (Ed). 2021. A grilagem de terras na formação territorial brasileira.
10 Universidade de São Paulo. Faculdade de Filosofia, Letras e Ciências Humanas.
- 11 Oliveira PJC, Asner GP, Knapp DE, *et al.* 2007. Land-Use Allocation Protects the Peruvian
12 Amazon. *Science* **317**: 1233–6.
- 13 Opas M, Torres LF, Milanez F, *et al.* 2018. South America Resistance beyond the Frontier :
14 Concepts and Policies for the Protection of Isolated Indigenous Peoples of the Amazon
15 Resistance beyond the Frontier : Concepts and Policies for the Protection of Isolated
16 Indigenous Peoples of the Amazon. **16**: 1–4.
- 17 Pack SM, Ferreira MN, Krithivasan R, *et al.* 2016. Protected area downgrading, downsizing,
18 and degazettement (PADDD) in the Amazon. *Biol Conserv* **197**: 32–9.
- 19 Paulino ET. 2014. The agricultural, environmental and socio-political repercussions of
20 Brazil's land governance system. *Land use policy* **36**: 134–44.
- 21 Prüssmann J, Suárez C, and Chaves M. 2017. Atlas of Conservation opportunities in the
22 Amazon biome under Climate Change Considerations.
- 23 RAISG. 2015. Deforestación en la Amazonía. 1970-2013. RAISG Red Amazónica de
24 Información Socioambiental Georreferenciada.
- 25 RAISG. 2016. Cartografía Histórica de Áreas Naturales Protegidas y Territorios Indígenas en

Chapter 16

- 1 la Amazonia. Sao Paulo. Red Amazónica de Información Socioambiental
2 Georreferenciada.
- 3 RAISG. 2020. Amazonia Under Pressure. © Amazon Network of Georeferenced Socio-
4 enviromental Information.
- 5 Rajão R, Soares-Filho B, Nunes F, *et al.* 2020. The rotten apples of Brazil’s agribusiness.
6 *Science* **369**: 246–8.
- 7 REDPARQUES. 2016. Informe regional implementación del programa de trabajo sobre áreas
8 protegidas 2011 - 2015: Región bioma amazónico. : 115.
- 9 REDPARQUES. 2018. Avances en la implementación del Programa de Trabajo sobre Áreas
10 Protegidas 2016-2017: Región Bioma Amazónico. Región Bioma Amazónico. Proyecto
11 IAPA – Visión Amazónica. REDPARQUES, WWF, FAO, UICN, ONU Medio
12 Ambiente. : 1–36.
- 13 REDPARQUES. 2019. Evaluación de efectividad del manejo a escala de bioma amazónico:
14 resumen del proceso de construcción, avances y recomendaciones Unión Europea, WWF,
15 FAO, UICN, ONU Medio Ambiente.
- 16 Ricardo F and Gongora M. 2019. Enclosures and resistance, isolated indigenous peoples in
17 Brazilian Amazonia.
- 18 Ricketts TH, Soares-Filho B, Fonseca GAB da, *et al.* 2010. Indigenous lands, protected areas,
19 and slowing climate change. *PLoS Biol* **8**: e1000331.
- 20 Saura S, Bastin L, Battistella L, *et al.* 2017. Protected areas in the world’s ecoregions: How
21 well connected are they? *Ecol Indic* **76**: 144–58.
- 22 Schwartzman S, Boas AV, Ono KY, *et al.* 2013. The natural and social history of the
23 indigenous lands and protected areas corridor of the Xingu River basin. *Philos Trans R*
24 *Soc B Biol Sci* **368**: 20120164.
- 25 Soares-Filho B, Moutinho P, Nepstad D, *et al.* 2010. Role of Brazilian Amazon protected
26 areas in climate change mitigation. *Proc Natl Acad Sci* **107**: 10821–6.

Chapter 16

- 1 Stevens C, Winterbottom R, Springer J, and Reytar K. 2014. Securing Rights, Combating
2 Climate Change.
- 3 Taylor PD, Fahrig L, Henein K, and Merriam G. 1993. Connectivity is a vital element of
4 landscape structure. *Oikos*: 571–3.
- 5 Tollefson J. 2013. Forest ecology: Splinters of the Amazon. *Nat News* **496**: 286.
- 6 Torres M, Doblaz J, and Alarcon D. 2017. ““Dono é quem desmata””: conexões entre grilagem
7 e desmatamento no sudoeste paraense. São Paulo: Instituto Agronômico da Amazônia.
- 8 Torres LF, Opas M, and Shepard Jr. GH. 2021. Políticas públicas e indígenas en aislamiento
9 en Perú y Brasil. *Rev Antropol*: 61–83.
- 10 UICN. 2020. Un estándar de éxito para áreas protegidas y conservadas en la Amazonía |
11 UICN <https://www.iucn.org/es/news/america-del-sur/202005/un-estandar-de-exito-para-areas-protegidas-y-conservadas-en-la-amazonia>. Viewed 14 Apr 2021.
- 13 Urzedo D and Chatterjee P. 2021. The colonial reproduction of deforestation in the Brazilian
14 Amazon: Violence against indigenous peoples for land development. *J Genocide Res* **23**:
15 302–24.
- 16 Vale MM, Berenguer E, Argollo de Menezes M, *et al.* 2021. The COVID-19 pandemic as an
17 opportunity to weaken environmental protection in Brazil. *Biol Conserv* **255**: 108994.
- 18 Vaz A. 2019. South America Povos indígenas em isolamento e contato inicial na Amazonia :
19 as armadilhas do desenvolvimento Povos indígenas em isolamento e contato inicial na
20 Amazonia :as armadilhas do desenvolvimento. *Tipiti J Soc Anthropol Lowl South Am* **16**:
21 125–45.
- 22 Walker WS, Gorelik SR, Baccini A, *et al.* 2020. The role of forest conversion, degradation,
23 and disturbance in the carbon dynamics of Amazon indigenous territories and protected
24 areas. *Proc Natl Acad Sci* **117**: 3015–25.
- 25 Woodley S, Locke H, Laffoley D, *et al.* 2019. A review of evidence for area-based
26 conservation targets for the post-2020 global biodiversity framework. *Parks* **25**: 31–46.

BOX 1 Protected areas downgrading, downsizing and degazettement (PADDD)

In the previous text, changes in the protected areas' limits, size or category has been mentioned briefly, but studies focused on analyzing PADDD, the processes by which protected areas are changed in their limits reducing their spatial extent, diminished in their protection category, or eliminated altogether over time, have found that historically the world has lost hundreds of thousands of square kilometers of protected land through this process. Here, we review some literature about this process and its effects and look into more detail for some of the Amazon countries.

A paper from 2014 (Mascia *et al.* 2014) alerted about this issue around the world. Despite agreements of the Parties to the Convention on Biological Diversity (CBD) to increase the global extent of protected areas to 17% of national lands, PADDD has been going on for years and has grown over time, impacting in some countries the achievement of the CBD land protection goal. Of the three, downsizing is the most common event and appears to be linked to industrial agriculture expansion, local land claims or resettlements, among other multiple causes, whereas mining and infrastructure are most common causes for downgrading of protected areas (Mascia *et al.* 2014).

While PADD could be used in some cases as an option for better conservation planning, prioritized allocation of resources (Fuller *et al.* 2010; Kareiva 2010) tradeoffs between competing policy objectives (Bass *et al.* 2010), or the fair recognition of land rights (Dowie 2009), the analysis showed that a majority of PADD events are a consequence of industrial scale activities and local pressures (Mascia *et al.* 2014), and far from conservation objectives.

Looking more specifically into the Amazon countries, a study examining PADDD events in Brazil since 1900 (Pack *et al.* 2016), found that 70% of the analyzed PADD events have occurred since 2005. Forty-eight events affected 88,341 km² of protected lands in the Brazilian Amazon. Ten active proposals related to PADDD would alter an additional 65,715 km² of conservation units in the Brazilian Amazon, with 42% of this area in strict protected areas and the remaining 58% in sustainable use protected areas.

Again, this study shows that among the enacted PADDD events, area downsizing is the most common and impacted mostly the Amazon protected areas, as compared to other biomes, with many of the altered sites considered biologically irreplaceable based on their representativeness and vulnerability (Pack *et al.* 2016). PADDD became more prevalent in Brazil since the early 2000s and linked to hydropower development in 39% of the cases. Within the Brazilian legal Amazon, PADDD has resulted in the removal of 72,136 km² of land protected in conservation units, both federal and departmental. Several of the studies cited in Pack *et al.* (2016), Araújo *et al.* (2012), Bernard *et al.* (2014), Ferreira *et al.* (2014) highlight the need for a clear legal process for PADDD. As opposed to

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the creation of protected areas, which has well defined technical and legal steps, the proposal or enactment of PADD lacks a clear national policy and legally it can proceed without technical studies, solely based on a specific, ad-hoc law (e.g., a decree or provisional measure issued by an authority), all of which impedes transparency of the process. Not to mention that in most cases the process does not include clear geographical documentation about the area to be altered, making it difficult to track the event. In 2018, the Supreme Federal Court of Brazil considered the use of a Provisional Measure to change the category, reduce or extinguish conservation units to be unconstitutional. The Provisional Measure is an exceptional legislative instrument in the Brazilian legal framework that is based on the relevance and urgency of the issue in question, has the force of law, determined validity and is edited by the President, and must be approved by the Legislature to become law. Although the decision does not guarantee reversibility to the provisional measures already applied, the judgment of the Direct Action of Unconstitutionality²⁴ establishes the unconstitutionality of future attempts to use this figure to void the environmental safeguards.

In Ecuador PADD events, as analyzed by López-Acevedo (2015), have been mostly characterized by the reconfiguration of limits with the aim to exclude extractive areas from protected areas. As a result, the extent of the affected protected areas ended up being larger, though not necessarily better fit for conservation.. There have also been eliminations of protected forests to allow for mining concessions. According to the Environmental Code in force, “if necessary and considering the results of such technical evaluations, the National Environmental Authority may re-delimit them [the protected areas] or change their category under technical considerations, as appropriate.” This leaves rather open the legal procedure for any PADD event, especially in terms of the discretionary decision by the environmental authority.

In Peru, any modification of a national-level protected area, can only be enacted through a law issued by the national congress (RAISG 2016). As of 2016, two events occurred in the Peruvian Amazon protected areas. One, resulted in the subdivision of an existing reserve (transitory category) in three types of protected land, but downsizing the initial extent of the reserve. The area eliminated was concessioned to mining companies (Decreto Supremo No. 023-2007-AG).

For Colombia and Venezuela there are no reports of PADD events in their protected areas.

²⁴ Supreme Federal Court of Brazil - Direct Action of Unconstitutionality 4717/2018, Published in the Official Federal Gazette in 13/04/2018

BOX 2 Ecological and sociocultural connectivity corridors initiatives and protection figures coordination initiatives

In the Amazon region, various initiatives, policies and programs that seek to guarantee the ecosystem connectivity of landscapes at different scales (national, regional, cross-border) by way of different approaches and societal sectors of society, as well as the coordination of different protection figures and management for conservation and sustainable development, are being implemented (Map 2). These proposals seek to promote the conservation of the ecological and sociocultural connectivity of the Amazon by providing solutions and bringing innovative aspects to conservation management in the Amazon, to respond to the challenges posed by the fragmentation of ecosystems and uncoordinated environmental management. Some of these initiatives are presented below.

Mosaico da Amazônia Oriental (Brazil) - implementation of a participatory and integrated management for the coordination of conservation and sustainable development units.

The creation of the Eastern Amazonia Mosaic in Brazil has its origin in a project presented and approved by the National Environment Fund - FNMA (Edital No. 01/2005) in 2006, which is part of the Law and decree instituted by the SNUC in which the mosaics of protected areas are recognized as instruments of integrated management. The Eastern Amazonia Mosaic includes 6 Conservation Units and 3 Indigenous Lands for a total of 12,397,347 ha. In the context of this project, various public institutions of the State of Amapá, civil society organizations and representatives of the agro-extractivist and indigenous communities of western Amapá and northern Pará have participated in the effort to develop a proposal to integrate management of the Conservation Units and other Protected Areas in the region, through a participatory and inclusive management council, in order to implement an integrated management that contributes to social, cultural, political and ecological connectivity between conservation units. (Instituto de Pesquisa e Formação Indígena – Iepé 2017).

Precedents for an Andean-Amazon connectivity regulation. Sangay-Podocarpus connectivity corridor in Ecuador

Since 2014, the Ecuadorean Decentralized Autonomous Governments (GAD, acronym in Spanish) of Azuay, Loja, Zamora Chinchipe and Morona Santiago, in collaborative work with non-governmental organizations and local populations, have been consolidating a connectivity corridor as a complementary conservation strategy to connect the Sangay National Park, Natural Heritage of Humanity, and the

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Podocarpus National Park, core area of the Podocarpus Biosphere Reserve. As a result of this work, the Sangay-Podocarpus Connectivity Corridor (CCSP) was declared as the first corridor in Ecuador in May 2020 by the Ministry of the Environment through a ministerial agreement that also provides the guidelines for the establishment, design and management of connectivity corridors in the country. This allowed Sangay - Podocarpus to become the first of its kind under the existing environmental regulations (Nature and Culture Ecuador 2020). The CCSP covers an area of 567,067 hectares and is located on the eastern slope of the Andes. The CCSP is an example of how connectivity corridors contribute to guarantee species migration, genetic flow between populations, biodiversity conservation and resilience in degraded ecosystems, enabling species adaptation to climate change.

Additionally, the CCSP helps to maintain the ecological connectivity of the Amazon with the Andean region, which presents high degrees of fragmentation, and sets a precedent for the management of regulations for ecosystem connectivity in the countries of the Amazon region.

Basin approach connectivity. Putumayo Biological and Cultural Corridor Cross-Border Initiative

It is an initiative to bring together the various actors of the four countries that make up the Putumayo basin (Brazil, Colombia, Ecuador and Peru), integrate the management of protected areas and indigenous territories, strengthen cultural connections and ensure a coordinated response to threats to the watershed, which is home to one of the last great intact forests in the world, with more than 75% of the watershed within indigenous territories, conservation areas, or areas proposed for conservation. Currently, there is a proposal to create three conservation areas in Peru: Medio Putumayo - Algodon, Ere - Campuya-Algodon, and Bajo Putumayo. The corridor has an area of 12 million ha, of which 39% are made up of indigenous territories and 19% are conservation areas. The initiative works on the creation of an advisory council with representatives of national and local governments, indigenous peoples, local communities and civil society organizations of the four countries, to ensure an integrated management of the basin and protect its ecological integrity going forward (Field Museum de Chicago 2020).

Initiative for Ecological and Socio-Cultural Connectivity Andes-Amazon-Atlantic

Civil society organizations in the Amazon, regional indigenous organizations and governments have been promoting the connectivity of the Amazon with the bioregions of the Andes and the Atlantic coast and strategies to strengthen the ecological and sociocultural connectivity between protection figures. That includes indigenous territories and areas for sustainable development in the northern part of the Amazon River, which covers about 200 million hectares in eight countries and is 67% legally protected. Based on

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the identification of strategic corridors for connectivity, this initiative seeks to motivate decision makers from the Amazon countries and other actors to implement, through their legal frameworks, existing initiatives and instruments for conservation management and development based on the sustainable use of the forest, participatory programs for the recovery of fragmented ecosystems, the coordination of management between protected areas and the strengthening of the governance of collective territories in order to ensure the connectivity of the Amazon with the Andes and the Atlantic. Based on actions aimed at guaranteeing future socio-cultural and ecological connectivity, the initiative seeks to help the Amazon continue to fulfill its role as a regulatory system for the global climate and as a support system for life on earth. (Fundación Gaia Amazonas 2020b)