



Protecting what protects us

Amazon Vision

The Amazon is home to the largest expanse of tropical rain forest remaining on Earth, with great biological diversity— 5 out of the 9 countries with territories in the Amazon (figure1) are considered mega-diverse according to United Nations¹. Brazil, Bolivia, Colombia, Ecuador, Peru, Venezuela, Guyana, Suriname and French Guyana are the 8 countries and territory that share the Amazon Biome, whose surface covers approximately a total of 6.851.583,24 km².

The Amazon biome, in addition to being referenced because of its biological diversity, must be understood as a region with a great political – administrative

network – due to its large expanse, equivalent to twice the size of India. This biome provides ecosystem services, not only for the 33 million people that inhabit it but also for the more of seven billion inhabitants of the Earth.

It is characterized by its very high cultural and population diversity, as it is mainly inhabited by indigenous people, settlers, afro-descendants² and riverbank communities. Among the more than 400³ indigenous communities of the Amazon there are different beliefs, customs and language groups. Its inhabitants depend on a vast majority on the resources of their territory to satisfy their different needs and livelihoods.

Figure1: Amazon Biome



- 1 See <http://www.pnuma.org/AcercaPNUMA.php>
- 2 This is particularly so in the case of Guyana, French Guyana and Suriname.
- 3 Including more than 60 isolated ones

Signs of threat

Fast changes are observed in the Amazon Biome, which affect its capacity to stabilize and to regulate climate changes in the world. According to RAISG, the deforestation accumulated to 2013 corresponds to 13,3% of the original forest cover of the Amazon, and it is estimated that the greater loss of original forest canopy (9,7%) occurred mainly between 1970 and 2000, whilst between 2000 and 2013 the remaining 3,6% disappeared.

One of the main threats is climate change, which puts at risk the maintenance of biodiversity and ecosystem services. To the foregoing we can add the deforestation processes, mining and the building of hydroelectric power plants. According to the vulnerability analysis with regards to climate change⁴, the effects could be greater in the southeastern part of the biome, in the states of Pará, Mato Grosso and Rondonia. In contrast, the areas that could experience less influence of climate change are the foothills of Colombia and Ecuador, the Atlantic coast of Guyana and the State of Maranhão in Brazil. In Bolivia, the provinces of El Beni and Pando towards the east show the highest index of climate change.

For Peru, the distribution is differentiated by regions; however, the greatest changes are expected towards the border with Brazil and Bolivia (Prüssmann et. al 2016).

In general terms, 8,37% of the biome is at very high-risk, this is equivalent to 57.351.087 ha.; at high-risk 11,86% (81.224.668 ha). In total, 138.575.755 ha. are seriously threatened. (Figure 2 a.)

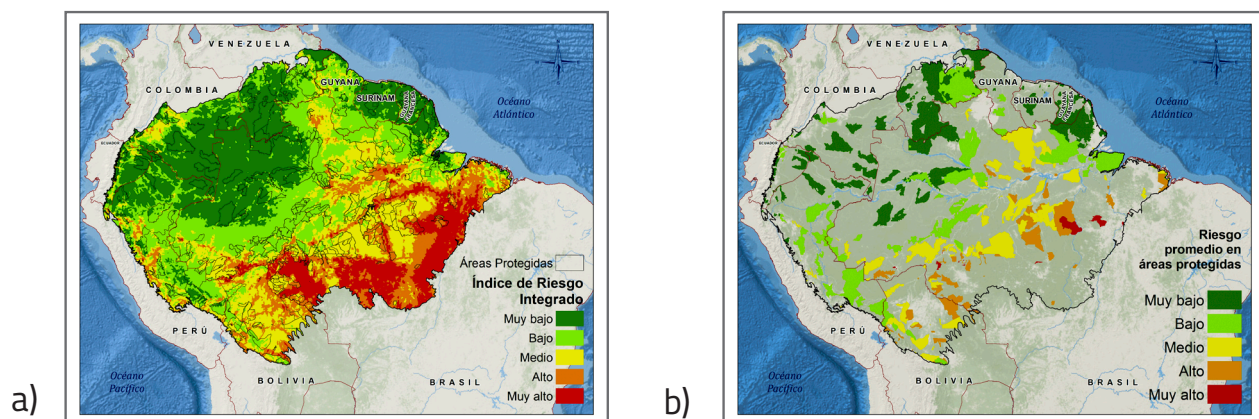
Although one can indicate that protected areas contribute 21,43% to reducing the climate change related risk level in the biome; 112 protected areas of the biome show today some level of risk between very high and high⁵ (Figure 2b).

Agricultural and live stock activities and infrastructure works, such as roads, dams and hydroelectric plants, are factors that exercise the greatest pressure on the region's forests. Due to the foregoing, it is important to highlight the value of the protected areas as important suppliers of ecosystem services for the productive sectors such as agriculture, fishery, tourism and forestry, contributing to food, water and energy security in the countries of the Amazon biome.

4 Prüssmann J., Suárez C., Guevara O. y A. Vergara. (2016). "Análisis de vulnerabilidad y riesgo climático del bioma amazónico y sus áreas protegidas". Proyecto Visión Amazónica: Áreas Protegidas, soluciones naturales al cambio climático. REDPARQUES Parques Nacionales Naturales de Colombia, Ministerio del Ambiente Ecuador, Ministerio del Ambiente Perú. Servicio Nacional de Áreas Naturales Protegidas por el Estado, WWF. Cali

5 36 protected areas face a very high risk This is equivalent to 4.482.517 ha. (2,35% of the total coverage of the biome's protected areas). 76 areas face a high risk, equivalent to 20.640.954 ha. (10,81%). In total, 25.123.470 ha with categories of very high and high.

Figure: a) Climate risk integrated index for the Amazon biome. b) Climate risk integrated risk for the protected areas of the Amazon biome.



Source: Prüssmann et. al 2016

Protected areas beyond borders

“Protected areas well governed and effectively managed, are a proven method to safeguard habitats and populations of species, as well as important ecosystem services. Moreover, more attention is required with regards to representativeness, connectivity and effectiveness in the management of protected areas.” (CDB 2016)⁶

The Convention on Biological Diversity (CBD) through Decisions VII/28 and IX/18 invites the parties to “Promote the development and importance of ecological networks for both terrestrial and marine areas, at national, regional and subregional levels, where appropriate”. Furthermore, Decision X/31 on protected areas promotes the establishment of strategies to strengthen the implementation at national, regional and global level. Lastly, Decision XI/24, paved the way to the following suggestions, pertaining to the future of the Amazon Vision:

- Generate the instruments necessary to adopt and incorporate the action plans of the protected areas that

guarantee the implementation and funding of the PoWPA.

- Connect the objectives of the Program to achieve Aichi Target 11.
- Recognize the communities’ steps and achievements.
- Align the approved protected areas projects with other projects from different funding.
- Establish communication and work with networks at regional and sub-national level within the countries, in order to compile good practices and recognize the progress in the implementation of the action plans.

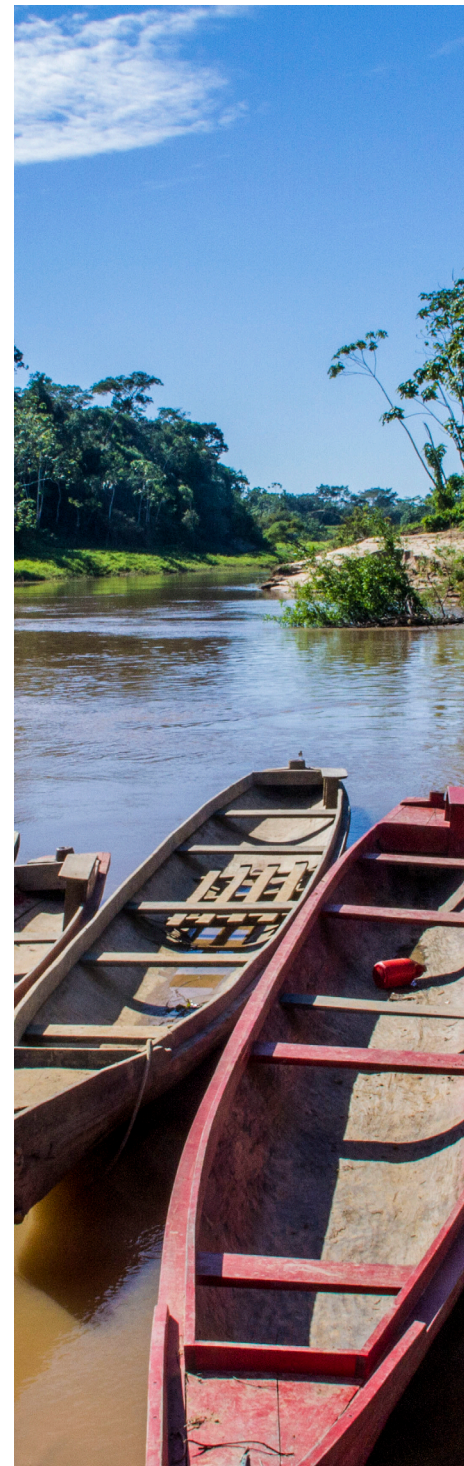
The Programme of Work on the Amazon Protected Areas (PoWPA): An innovative path for cooperation at biome scale

The PoWPA as a technical-political move of the countries has become essential in the creation of policies, agreements and regulations on the protected areas within the biome countries. In light of the negotiations following its adoption and as a supplement to its implementation, other global guidelines have been structured that are reflected within the PoWPA elements and that are fundamentally important in a future implementation scenario of the program, such as the Aichi Targets and the Innovative Approaches of the Promise of Sidney.

The 2010–2020 Action Plan of the Amazon Vision developed as integral part of the Regional Report on the Implementation

of the 2010 PoWPA⁷, is a tool that allowed for the generation of actions and projects to guarantee an ecologically healthy Amazon biome that maintains its environmental and cultural contribution for the local communities, the indigenous peoples, the countries of the region and the world.

In light of the results and challenges, on the basis of the official data compiled by the Secretariat of the Convention on Biological Diversity in fulfilling the National Action Plans on the implementation of the PoWPA, the **advances** in each one of the objectives, strategic actions and goals prioritized by the Amazon Vision for the period 2011–2015 are outlined.



⁶ Convention on Biological Diversity (2016). Quick Guides for the Aichi Biodiversity Targets. Available from <https://www.cbd.int/nbsap/training/quick-guides/>

⁷ Subsequent adjustments were made, incorporating essential aspects of Decision X/31 and the Aichi Targets.



6,8
million Km²
is the total surface
of the amazon biome



10%+
of the biodiversity of
the planet is in the
Amazon region



40%
of the biome
has been affected
by deforestation

Creation and strengthening of National and Regional Protected Areas Systems

In 2015 an increase was reported of approximately 1%⁸ in the coverage of the protected areas of the Amazon region with the establishment of 44 new areas. The countries that report a larger increase of their protected areas are Peru, with nearly 1,16% and Guyana with 1,21%. On the other hand, the countries that report a larger increase in the number of protected areas in the Amazon are Brazil (27), Colombia (14) and Peru (7). To December 2015, 1.021 conservation figures were recorded in the Amazon biome, of which 513 are protected areas under some IUCN category, category VI being the most represented with 192 areas, followed by II with 93 and IV with 89. The remaining 508 protected areas correspond to conservation figures from the countries such as "Immobilization Natural Reserve" and "Municipal Park" in the case of Bolivia; "Indigenous Territories" in Brazil and Guyana; "Protecting Forest Reserves" and "Regional Reserves" in Colombia; and "Ecological Area of Conservation" in Ecuador.

Conservation opportunities from a comprehensive ecological standpoint

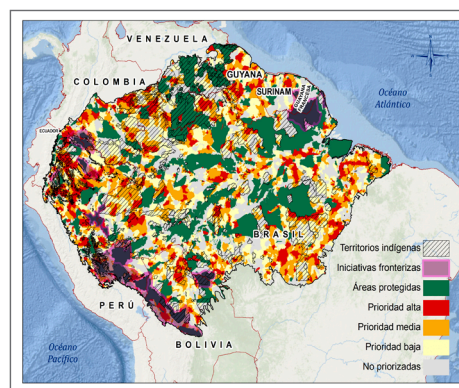
One of the greatest advances in these five years (2011-2015) is today's *Regional portfolio of areas with conservation opportunities*⁹. A result of the work coordinated with REDPARQUES and its Amazon countries, FAO, UNEP, IUCN and WWF, among other partners of the Amazon Vision.

The criteria that laid the foundation for the portfolio were representativeness of the conservation objects, irreplaceability of intrinsic characteristics of each planning unit, complementarity and connectivity with the protected areas system, and spatial configuration that makes possible to minimize edge effects.

Environmental costs considered were: a) climate risk, b) risk of transformation of the landscape and of biodiversity loss due to anthropic causes, and c) ecosystem services for storage of carbon and water yield.

This analysis allowed visualizing the areas with a greater opportunity of conservation and their relative distribution in terms of presence of indigenous territories and border initiatives (Figure 3). This portfolio is the first step in the decision making process aimed at increasing the resilience of the Amazon biome with regards to climate change.

Figure 3: Conservation opportunities for the Amazon biome



Source: Prüssmann et. al 2016

Integration of climate change variables in the planning of protected areas

In response to the multiple challenges posed by climate change for an effective management of the protected areas, 18 countries member of REDPARQUES— including eight Amazon countries and the French-Guyana adopted Declaration for the Conference of the Parties number 21 of the UNFCCC. The Declaration on Protected Areas and Climate Change¹⁰ from REDPARQUES recognizes the role of the protected areas in providing natural strategies to tackle climate change.

⁸ 2,118,743.22 km²

⁹ WWF under the framework of the IAPA and SNACC projects.

¹⁰ Infographics available at http://d2ouvy59p0dg6k.cloudfront.net/downloads/final_infographic_declaration_2.pdf

The commitments of the Declaration have laid the foundations for regional co-operation among the National Protected Areas Systems to include climate change criteria in the planning and management of protected areas, integrate the role of the protected areas within the climate change strategies at different levels and in the resilience agenda for the Amazon biome with regard to climate risks, based on regional efforts coordinated through protected areas.

Governability, participation and equality in the benefits

The Amazon countries have **legal and institutional frameworks** in place that make viable and possible the management of their protected areas. In the last 5 years, important progress was observed in the generation of new and diverse legal frameworks which cover the objectives of the PoWPA and seek to improve the conditions of participation, the rights of the Indigenous Peoples to the distribution of benefits due to the use of their knowledge on biodiversity resources, territorial rights, rights to prior consultation, among others.

Governance initiatives at sub regional level that cover the processes beyond the borders of the countries have continued their strengthening process. Thus, there are initiatives that from their different approaches, contribute to improving the governance in their areas of intervention as well as the consolidation of their joint vision of the territory; this is the case led today by Colombia-Ecuador- Peru¹¹; Bolivia-Peru-Brazil¹²; Brazil- French Guyana-Suriname¹³; and Guyana - Suriname - Brazil-Colombia¹⁴.

Financial sustainability of the protected areas of the national and regional protected areas systems

The biome shows advances in relation to 2010 in the implementation of the actions put forth in the PoWPA; six of the

eight suggested actions show progress, in some cases significant in relation to what was reported in 2010. This is due rather to the individual initiatives of the countries. There are cases where the financial gap analyses have served as a negotiation tool with regards to an increment of the state's allocations, justification of new projects and investment flows; there are projects focused on closing the gap (e.g. ARPA).

Although there is an increase in the resources available for the Protected Areas Systems - NPAS, it is observed that the resources allocated to the biome have only marginally improved, since the financial resources for protected areas in the Amazon went from USD 31,7 million to 49,5 million between 2010-2015, a 9% of the total of the resources available in the NPAS.

The budget allocations of the States continue being the primary income of the protected areas in the biome countries, which have had to be strongly supplemented mostly through international cooperation, given that the income generation mechanisms associated to the services they provide, are still in the early stages. Worth highlighting are the financial sustainability initiatives related to heritage funds in Peru and Brazil, compensations or reimbursement rates, in addition to public-private alliances that have alleviated important expenditure burdens (e.g. Tourism). Other financial sustainability mechanisms and tools are observed such as environmental funds, participation and co-management figures, payment for environmental services and others related with climate change

As for the financial gap, although the countries that make up the Amazon biome have conducted exercises based on a methodology that facilitates comparison and monitoring, still pending to determine is the investment gap so that the set of these protected areas reaches minimum levels of management effectiveness.

11 The Three-country program contains a 4-year action plan which, to achieve the targets of the PoWPA puts forth cooperation with regards to: illicit activities, agreement on environmental measures to prevent impact caused by infrastructure works, coordination authorities – players for territorial zoning and planning, coordination for sustainable management of natural resources

12 The MAP initiative (Madre Dios, Acre, Pando) is an institutional non-political voluntary solidarity movement at large scale formed by citizens and free and independent institutions of the three countries.

13 GANECA: Guyanas & Amazonia, North Eastern Conservation Alliance) has a declaration of intent (2015) whose objective is to guarantee the best conservation results in a globally important subregion, through border PAs (South Suriname Conservation Corridor and Central Suriname Nature Reserve (Suriname); Parque Nacional Montanhas do Tumucumaque (Brazil) and Guyana Amazonian Park (French Guyana).

14 Guiana Shield Initiative whose objective is to provide the mechanisms for the countries to fight the threats to natural resources in terms of large scale agriculture, plantations, forestry and mining industries.

Protected areas management effectiveness

“There is no doubt that protected areas prove to be the places where biological diversity is conserved better, provided they are well managed; therefore one of the requirements to reach a good conservation level is to measure management effectiveness as an essential element of Aichi Target 11 (Juffe, et.al, 2014).



15%
of all the world's clear water is discharged into the Amazon River



34
million people live in the Amazon region



20,3%
of the Amazon surface is under mining zones

The methodologies to measure management effectiveness in the Amazon countries show a clear evolution and adaptation with regards to the management needs learned throughout the years; those have been guided by international elements but at the same time, they are specialized in the national contexts so that they have had an effective influence on the decisions in relation to the management of protected areas.

The Amazon countries have executed most of the actions put forth by the PoWPA to establish methods, standards and measurement criteria, their implementation in more than 60% of the territory and the utilization of information generated through these tools to improve planning and management of the NPAS. Although no specific methodologies are available for defined ecosystems as those contained in the Amazon biome, in 7 of the 9 countries the Amazon protected areas management effectiveness analysis has been systematically applied, integrating recommendations specific to the territorial and regional context.

There is a trend aimed at assessing impact and generating changes from the decision making levels based on the results of management effectiveness evaluations, under criteria that analyze design, planning, results and products, intended to strengthen management.

Protected Areas of the Biome and their advances in achieving Aichi Target 11

Cooperation among the Biome's countries becomes “the best strategy to successfully achieve the CBD strategic plan, in particular with regards to Aichi targets 11 and 12, especially in relation with all the elements including coverage, ecologic representation, connectivity and integration of landscapes, effective management and equality and other effective conservation instruments based on areas that contribute to preventing extinction of threatened species and to improving their conservation status, as well as contribution to other Aichi Goals and the PoWPA”¹⁵

According to the report on the status of biodiversity in Latin America and the Caribbean: mid-term review on the progress made in Aichi Biodiversity Targets (UNEP-WCMC, 2016), coverage of areas has significantly improved in the region over the last years, including those of public, community and private nature. However, it is necessary to strengthen the effectiveness of the protected areas networks and the biologic corridors. The report recognizes the role of the Amazon basin in the conservation of biodiversity, highlighting the role of initiatives such as the Integration of Amazon Biome Protected Areas (IAPA) – Amazon Vision project.

According to data reported by the Biome countries, in 2015 30,9% of the total area is under any conservation figure; observing a **positive trend in terms of coverage** of protected areas for the Biome (Figure 4). Similarly, the countries have initiatives to expand the coverage of protected areas in the next years.

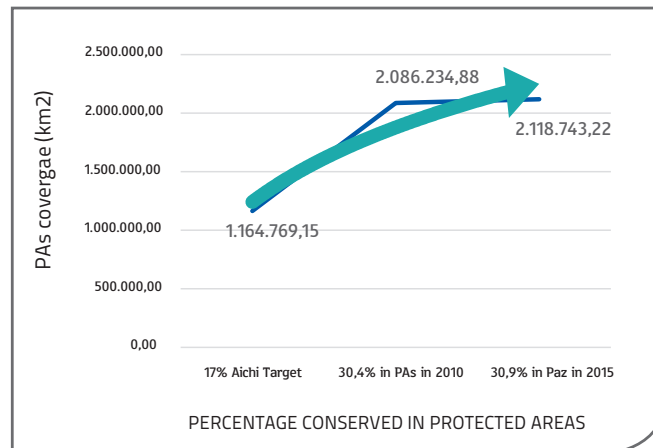
In terms of **representativeness**, it was observed that in addition to the zones already conserved in the protected areas, there are new conservation priorities in the biome (11,50% high conservation priority, 19,62% medium priority and 22,42% low priority).

¹⁵ Declaration of REDPARQUES on the contribution of protected areas to sustainable development and human well-being - to Cop13 of the CBD. Guatemala, 27 October 2016.

The connectivity trend between protected areas of the biome is positive, identifying connectivity processes between protected areas within the countries (16 connectivity initiatives) and at regional scale (12 initiatives).

With reference to the distribution of the benefits derived from the protected areas there is evidence on the progress made in the countries in regulation and legal terms, with 28 new legal frameworks, but also very advanced practices of participation, with 22 institutional mechanisms in the region to enable social participation. Although the 9 Amazon countries are signatories to the Nagoya Protocol, to date, only Peru has ratified it.

Figure 4. Trend in the coverage of protected areas for the amazon biome



Source: Own development IAPA Project, 2016.

Recommendations and Challenges

Without doubt, continuing to move forward in the achievement of the Aichi Targets and the actions established by the Amazon countries under the framework of the PoWPA 2016-2020, will require the implementation of a set of coherent legal, political and institutional actions in the different government ministries and integration of biodiversity into the productive sectors such as agriculture, fishery, tourism and forestry.

Adoption, adjustment and new socio-economic incentives to strengthen the management, governance, effectiveness and financial sustainability for the protected areas will have to find and implement innovative ways involving all the stakeholders (local governments, private sector, indigenous and local communities, civil society and social movements, as well as new ways of social organization according to the realities of each one of the Amazon countries).

The greatest challenges are:

- Consolidate programs that closely involve the capability of the protected

areas for the ecosystems resilience, guaranteeing connectivity in high ecological priority areas, as well as strengthen the effectiveness of the corridors and of the ecologic networks.

- Strengthen border efforts, including the establishment of management and administration regulatory frameworks, which enable advancing processes such as territorial land zoning and environmental and inter-sector territorial zoning.
- Clarity and definition on land tenancy in the Amazon is a determining factor that must go through formal recognition of territorial rights of indigenous populations and local communities.
- Establish coordination scenarios with the productive sectors such as agriculture, fishery, forestry and tourism, for the conservation of the biome and to contribute to food, water and power safety of the biome and of the communities.

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Protected Areas are deemed one of the best ways to conserve de biological diversity. A protected areas global network, where human activity is managed to preserve the structure and function of the ecosystems, is a successful strategy to obtain benefits for present and future generations and to reduce significantly the loss of biodiversity.

This is a contribution of the project Integration of the Amazon Protected Areas –IAPA, to the REDPARQUES's Amazon Vision Initiative.

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