Adaptation and Mitigation to Climate Change: Lessons Learned from Protected Areas in the Amazon

The Amazon

Approximately 7.8 million square kilometres

Inhabited by approximately 33 million people – including indigenous peoples (some of which remain in voluntary isolation), and rural and traditional communities

The Amazon

Approximately 2,344 indigenous territories and local communities

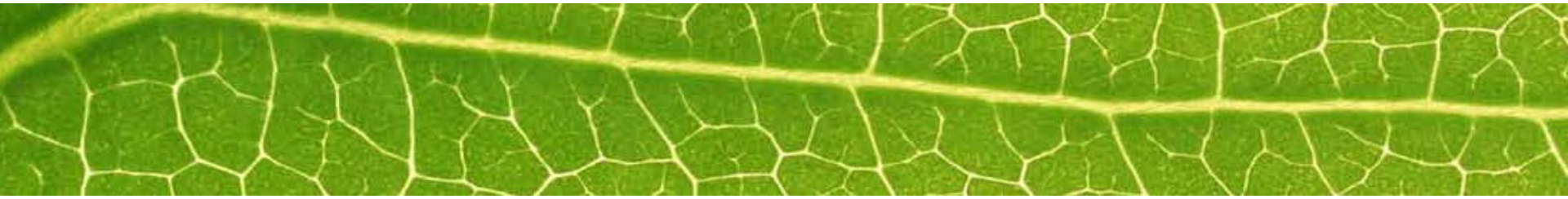Diversity of linguistic groups spanning 86 languages and 650 dialects

610 national protected areas (1,696,529 km² or 21.8% of the Amazon)

- Indigenous territories and local communities make up 27.5%

- 45% of the Amazon under official protection and sustainable use (protected areas and indigenous territories)

- It is the largest and most abundant basin on earth, providing 15% to 20% of global freshwater supplies

- Represents 53% of the world's tropical rainforests

AMAZONÍA 2012
ÁREAS PROTEGIDAS
TERRITORIOS INDÍGENAS

RAISG

OCÉANO ATLÁNTICO

OCÉANO PACÍFICO

PANAMÁ

VENEZUELA

GUYANA

SURINAME

GUYANE FRANÇAISE

COLOMBIA

ECUADOR

PERÚ

BRASIL

BOLIVIA

CHILE

PARAGUAY

Territorios Indígenas

territorio de ocupación y uso tradicional
reconocido oficialmente

territorios de ocupación y uso tradicional
en reconocimiento oficial, en proceso de titulación o sin información

reserva territorial o zona intangible

propuesta de reserva territorial

comunidades indígenas sin territorio reconocido

indígenas "en aislamiento, no contactados
o en contacto inicial"

Áreas Naturales Protegidas

uso indirecto (protección integral)

uso directo (uso sostenible)

uso directo/indirecto

categorías transitorias

Red Amazónica de Información Socioambiental Georreferenciada

An alliance between IUCN-South America and the Gordon and Betty Moore Foundation to identify good management practices and lessons learned in the last 10 years in Amazon protected areas, from Durban to Sydney.
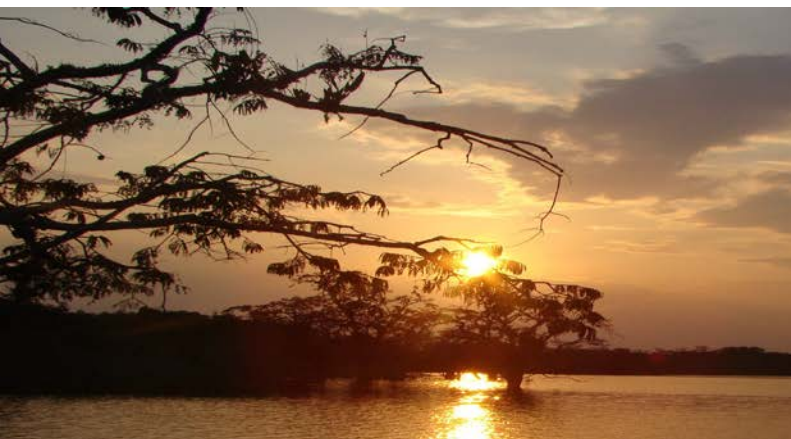
Five countries prioritised: Bolivia, Brazil, Colombia, Ecuador and Peru

A Retrospective Reflection with Regional Experts

The information presented here was generated through an in-depth research process involving both primary and secondary information sources.

National workshops were held with experts in Amazon protected areas management for each of the priority countries, in addition to one regional workshop

Surveys and interviews with specialists from the different countries were also conducted

The basis of the analysis: five key issues of protected area management

1) Management effectiveness
2) Management sustainability
3) Climate change
4) Governance and participation of local actors
5) Contribution of protected areas to development

What planning and monitoring tools have been developed in Amazon protected areas to reduce vulnerability and increase options for adaptation to climate change?

TOOLS

COLOMBIA In the Natural Alto Fragua Indiwasi National Park, environmental management of the area of influence is linking the land use planning unit, where the land use planning process is a carried out with landowners, and conservation agreements are generated at farm, vereda, and basin levels.

PERU The updating and elaboration of master plans involves the development of a conceptual model, and climate change is an important variable in that this information is available, along with explicit evidence of climate change impacts, this is achieved by using future scenarios in accordance with projected changes.

BOLIVIA The MARISCO tool (Adaptive Risk and Vulnerability Management in Conservation Sites) has been designed for this purpose, but it is not yet widely considered in Amazon protected areas in Bolivia, climate change adaptation plans are gradually being included.

TOOLS

BRAZIL The map of biodiversity priority areas partially incorporates a climate change adaptation component, and is the basis for the creation of Conservation Units since 2007.

The processes for design and incorporation of Planning and Monitoring tools in Amazon protected areas to reduce vulnerability and increase options for climate change adaptation are still in early stages, and they are at different stages of implementation in each of the countries analysed.

Which adaptation approaches have been implemented?

- Community-based adaptation actions combined with improvement of natural resources practices and sustainable traditional practices.
- Creation of conservation areas at municipal, local and community level.
- Development of ecosystem-based approaches to climate change adaptation through the establishment and effective management of the National System of Protected Areas to ensure the provision of ecosystem services that contribute to increased resilience to climate change.

Are there experiences of planning to improve the resilience of Amazon protected areas to climate change?

- The ARPA Programme (Protected Areas of the Amazon) maintained deforestation rates below 10% of the area (97% of CUs)and the vast majority (92%) limited forest loss to less than 5% of the area.

- SERNANP, WWF y GIZ have developed a methodology for a climate change vulnerability analysis of Protected Natural Areas from SINANPE, which incorporates both climatic and non-climatic variables.

- A pioneering greenhouse gas mitigation project, at the Noel Kempff Mercado National Park (1997-2026) begun as a Clean Development Mechanism project within the voluntary market, it is currently being aligned with the new Bolivian regulatory framework (Mechanism for Mother Earth and integrated forest management)

Are there guidelines for adaptation of specific protected areas to climate change and for systems or subsystems of Amazon protected areas?

- Colombia's Natural National Parks System has a Climate Change Strategy which provides guidelines for the management (adaptation and mitigation) of climate variability and climate change scenarios.

- In Peru EbA (Ecosystenm based Adaptation) is been implemented at diferent protected areas and guidelines are being drafted.
- Management agreements with various NGOs; special guidelines have been developed for REDD+ projects in Pas-

Strengths

Recognition by countries of the necessity to develop policies and instruments for adaptation to climate change at different scales

Development of pilot mitigation and adaptation experiences.

45% of the Amazon biome is under some form of protection, providing a significant role in global strategies for mitigation and adaptation to climate change, which provides the region with a greater leverage for global negotiations.

Strengths

Development of a landscape-scale management approach (mosaics, ecological corridors, regional areas), which are now beginning to include climate change in its objectives.

Traditional knowledge is a factor enhancing climate change adaptation capabilities on behalf of different communities.

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Challenges

Co-responsibility for the sustainability of the management of protected areas, among the public and private sectors, as well as society as a whole.

Develop mechanisms to promote the concept of protected areas amongst society in general and make sure that protected areas are firmly placed within the public agenda.

Create platforms for discussion that critically analyze the potential social impacts of benefit-sharing mechanisms

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Challenges

Rethink the economic model of the Amazon.

Implement the application of an Ecosystem Approach.

Develop public policies that recognise traditional knowledge and coordinate with the technical/scientific knowledge

Proposals to enhance protected area management effectiveness in the Amazon

Mainstream countries climate change planning and management tools

Incorporate climate change impact analysis in the design, planning, and management processes of protected areas

Develop tools for vulnerability analysis to climate change protected areas of different levels and their buffer zones.
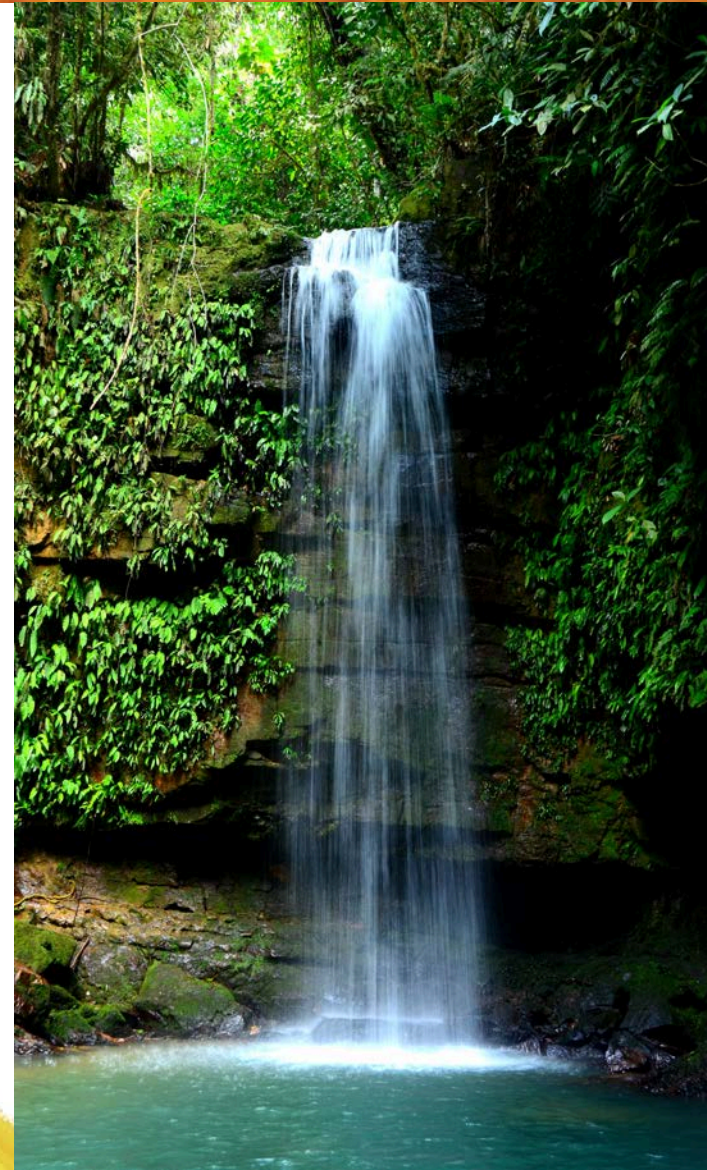
Proposals to enhance protected area management effectiveness in the Amazon

Plan transboundary strategies for adaptation and mitigation in the Amazon, utilising a landscape approach.

Valuation of protected areas in the Amazon biome in its role for maintaining and/or increasing the social, economic and environmental resilience to the impacts of climate change.

Articulate scientific knowledge and traditional knowledge for planning and decision-making across the board