Convention on Biological Diversity

UNDP

Aichi Biodiversity Target 11 Country Dossier: BOLIVIA (PLURINATIONAL STATE OF)

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GLOSSARY

AZEs	Alliance for Zero Extinction sites
CEPF	Critical Ecosystem Partnership Fund
EEZ	Exclusive Economic Zone
GCF	Green Climate Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
IBA	Important Bird and Biodiversity Area
ICCAs	Indigenous and Community Conserved Area Area (may also be referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life")
IPLC	Indigenous Peoples and Local Communities
KBA	Key Biodiversity Area
NBSAP	National Biodiversity Strategy and Action Plan
OECM	Other Effective Area-Based Conservation Measures
PA	Protected Area
PAME	Protected Area Management Effectiveness
PPA	Privately Protected Area
ProtConn	Protected Connected land indicator
SOC	Soil Organic Carbon
TEOW	Terrestrial Ecosystems of the World
WDPA	World Database on Protected Areas
WD-OECM	World Database on Other Effective Area-Based Conservation Measures

Disclaimer

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This country dossier is compiled by the UNDP and SCBD from publicly available information. It is prepared, within the overall work of the Global Partnership on Aichi Biodiversity Target 11, for the purpose of attracting the attention of the Party concerned and other national stakeholders to facilitate the verification, correcting, and updating of country data. The statistics might differ from those reported officially by the country due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Furthermore, the suggestions from the UNDP and SCBD are based on analyses of global datasets, which may not necessarily be representative of national policy or criteria used at the national level. The analyses are also subject to the limits inherent in global indicators (precision, reliability, underlying assumptions, etc.). Therefore, they provide useful information but cannot replace analyses at a national level nor constitute a future benchmark for national policy or decision-making.

The preparation of this dossier was generously supported by: the Government of the Federal Republic of Germany, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GMbH*; the European Commission; the Government of the United Kingdom of Great Britain and Northern Ireland; and the Government of Japan (Japan Biodiversity Fund). The dossier does not necessarily reflect their views.

EXECUTIVE SUMMARY

This document provides information on the coverage of protected areas (PAs) and other effective area-based conservation measures (OECMs), as currently reported in global databases (the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM)). It also includes details on the status of the other qualifying elements of Aichi Biodiversity Target 11 based on this data. These statistics might differ from those reported officially by countries due to difference in methodologies and datasets used to assess protected area coverage, differences in the base maps used to measure terrestrial and marine area of a country or territory, or if global datasets differ from the criteria and indicators used at the national level. This dossier also provides a summary of commitments made under Aichi Biodiversity Target 11, and a summary of potential opportunities regarding elements of the target for future planning.

The dossier has been developed in consultation with the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), which manages the WDPA, WD-OECM and Global Database on Protected Area Management Effectiveness (GD-PAME). Parties to the CBD are requested to contact protectedareas@unep-wcmc.org with any updates to the information in these databases.

Aichi Biodiversity Target 11 Elements: Current status and opportunities for action

Coverage

- **Status:** as of May 2021, terrestrial coverage in Bolivia (Plurinational State of) is 336,406.6 km^2 (30.9%).
- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, focus on relatively intact areas, while addressing the elements in the following sections, could be considered if planning new PAs or OECMs.

Ecological Representativeness

- **Status:** Bolivia (Plurinational State of) contains 16 terrestrial ecoregions: the mean protected coverage by reported PAs and OECMs is 28.6%, while 3 terrestrial ecoregions have no coverage by reported PAs and OECMs (though all cover <0.01% of Bolivia).
- **Opportunities for action:** there is opportunity for Bolivia (Plurinational State of) to increase protection in terrestrial ecoregions that have lower levels of coverage by PAs or OECMs; and focus on effective management for those that already have higher coverage.

Areas Important for Biodiversity

- **Status:** Bolivia (Plurinational State of) has 59 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 51.9%, while 12 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Bolivia (Plurinational State of) to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

Areas Important for Ecosystem Services

- **Status:** coverage of areas important for ecosystem services: In Bolivia (Plurinational State of), 37.7% of aboveground biomass carbon, 35.5% of belowground biomass carbon and 31.5% of soil organic carbon is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for Bolivia (Plurinational State of) to increase PA and OECM coverage in terrestrial areas with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

Connectivity and Integration

- **Status:** coverage of protected-connected lands is 10.8%.

- **Opportunities for action:** there is opportunity for a targeted increase in connecting PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

Governance Diversity

- **Status:** the most common governance types for reported PAs in Bolivia (Plurinational State of) is: 85.6% under Government (67.1% Sub-national ministry or agency; 17.4 % Federal or national ministry or agency; 1.2% Government-delegated management).

- **Opportunities for action:** explore opportunities for governance types that have lower representation, this could relate to governance by Indigenous Peoples and/or local communities (IPLC), shared governance, etc. Increase efforts to identify the

governance types for the 14.4% of sites that do not have their governance type reported.

- There is also opportunity for Bolivia (Plurinational State of) to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

Protected Area Management Effectiveness

- **Status:** 46.2% of terrestrial PAs have completed Protected Area Management Effectiveness (PAME) assessments reported.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs, therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations to achieve the target.
- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

INTRODUCTION

The Strategic Plan for Biodiversity 2011-2020 was adopted at the tenth meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) held in Nagoya, Aichi Prefecture, Japan from 18-29 October 2010. The vision of the Strategic Plan is one of "Living in harmony with nature" where *"By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people"* (CBD, 2010). In addition to this vision, the Strategic Plan is composed of 20 targets, under five strategic goals. Aichi Biodiversity Target 11 states that *"By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."*

With the conclusion of the Aichi Biodiversity Targets in 2020, Target 11 on area-based conservation has seen success in the expansion of the global network of protected areas (PA) and other effective area-based conservation measures (OECMs). The negotiation of the post-2020 Global Biodiversity Framework (GBF) and its future targets provide an essential opportunity to further improve the coverage of PAs and OECMs, to improve other aspects of area-based conservation, to accelerate progress on biodiversity conservation more broadly, while also addressing climate change, and the Sustainable Development Goals. This next set of global biodiversity targets are to be adopted at the fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity. These new targets must aim to build upon lessons learned from the last decade of progress to deliver transformative change for the benefit of nature and people, to realize the 2050 Vision for biodiversity.

The United Nations Development Programme (UNDP) and the Secretariat of the Convention on Biological Diversity have developed the Aichi Biodiversity Target 11 Country Dossiers, which provide countries with an overview of the status of Target 11 elements, opportunities for action, and a summary of commitments made by Parties over the last decade. Each dossier can support countries in assessing their progress on key elements of Aichi Biodiversity Target 11 and identifying opportunities to prioritize new protected areas and OECMs.

This dossier provides an overview of area-based conservation in Bolivia (Plurinational State of). Section I of the dossier presents data on the current status of Bolivia (Plurinational State of)'s PAs and OECMs. The data presented in Section I relates to each element of Target 11. Section I also presents the PA and OECM coverage for two critical ecosystem services: water security and carbon stocks. In addition, the dossier presents potential opportunities for action for Bolivia (Plurinational State of), in relation to each Target 11 element. The analyses present options for improving Bolivia (Plurinational State of)'s area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Bolivia (Plurinational State of)'s existing PA and OECMs commitments as a summary of existing efforts towards

achieving Target 11. This gives focus not only to national policy and actions but also voluntary commitments to the UN. Furthermore, where data is available, this dossier provides information on potential OECMs, Indigenous and Community Conserved Areas (ICCAs; also often referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life") and Privately Protected Areas (PPAs) and the potential contribution they will have in achieving the post-2020 targets.

The information on PAs and OECMs presented here is derived from the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM). These databases are joint products of UNEP and IUCN, managed by UNEP-WCMC, and can be viewed and downloaded at www.protectedplanet.net. Parties are encouraged to provide data on their PAs and OECMs to UNEP-WCMC for incorporation into the databases (see e.g. Decisions 10/31 and 14/8). The significant efforts of Parties in updating their data in the build up to the publication of the Protected Planet Report 2020 (UNEP-WCMC and IUCN, 2021) were greatly appreciated. UNEP-WCMC welcomes further updates, following the data standards described here (www.wcmc.io/WDPA_Manual), and these should be directed to protectedareas@unep-wcmc.org. The statistics presented in this dossier are derived from the May 2021 WDPA and WD-OECM releases, unless explicitly stated otherwise. Readers should consult www.protectedplanet.net for the latest coverage statistics (updated monthly).

Some data from the WDPA and WD-OECM are not made publicly available at the request of the data-provider. This affects some statistics, maps, and figures presented in this dossier. Statistics provided by UNEP-WCMC (terrestrial and marine coverage) are based upon the full dataset, including restricted data. All other statistics, maps, and figures are based upon the subset of the data that is publicly available.

Where data is less readily available, such as for potential OECMs, ICCAs and PPAs, data has also been compiled from published reports and scientific literature to provide greater awareness of these less commonly recorded aspects. These data are provided to highlight the need for comprehensive reporting on these areas to the WDPA and/or WD-OECM. Parties are invited to work with indigenous peoples, local communities and private actors to submit data under the governance of these actors, with their consent, to the WDPA and/or WD-OECM.

Overall, PAs and OECMs are essential instruments for biodiversity conservation and to sustain essential ecosystem services that support human well-being and sustainable development, including food, medicine, and water security, as well as climate change mitigation and adaptation and disaster risk reduction. The data in this dossier, therefore, aims to celebrate the current contributions of PAs and OECMs, whilst the gaps presented hope to encourage greater progress, not just for the benefit of biodiversity and the post-2020 GBF, but also to recognize the essential role of PAs and OECMs to the Sustainable Development Goals and for addressing the climate crisis.

SECTION I: CURRENT STATUS

Aichi Biodiversity Target 11 refers to both protected areas (PAs) and other effective area-based conservation measures (OECMs). This section provides the current status for all elements of Aichi Biodiversity Target 11 where indicators with global data are available. Statistics for all elements are presented using data on both PAs and OECMs (where this data is available and reported in global databases like the WDPA and WD-OECM). It is recognized that statistics reported in the WPDA and WD-OECM might differ from those reported officially by countries due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Details on UNEP-WCMC's methods for calculating PA and OECM coverage area available here. The global indicators adopted here for presenting the status of other elements of Target 11 may also differ from those in use nationally.

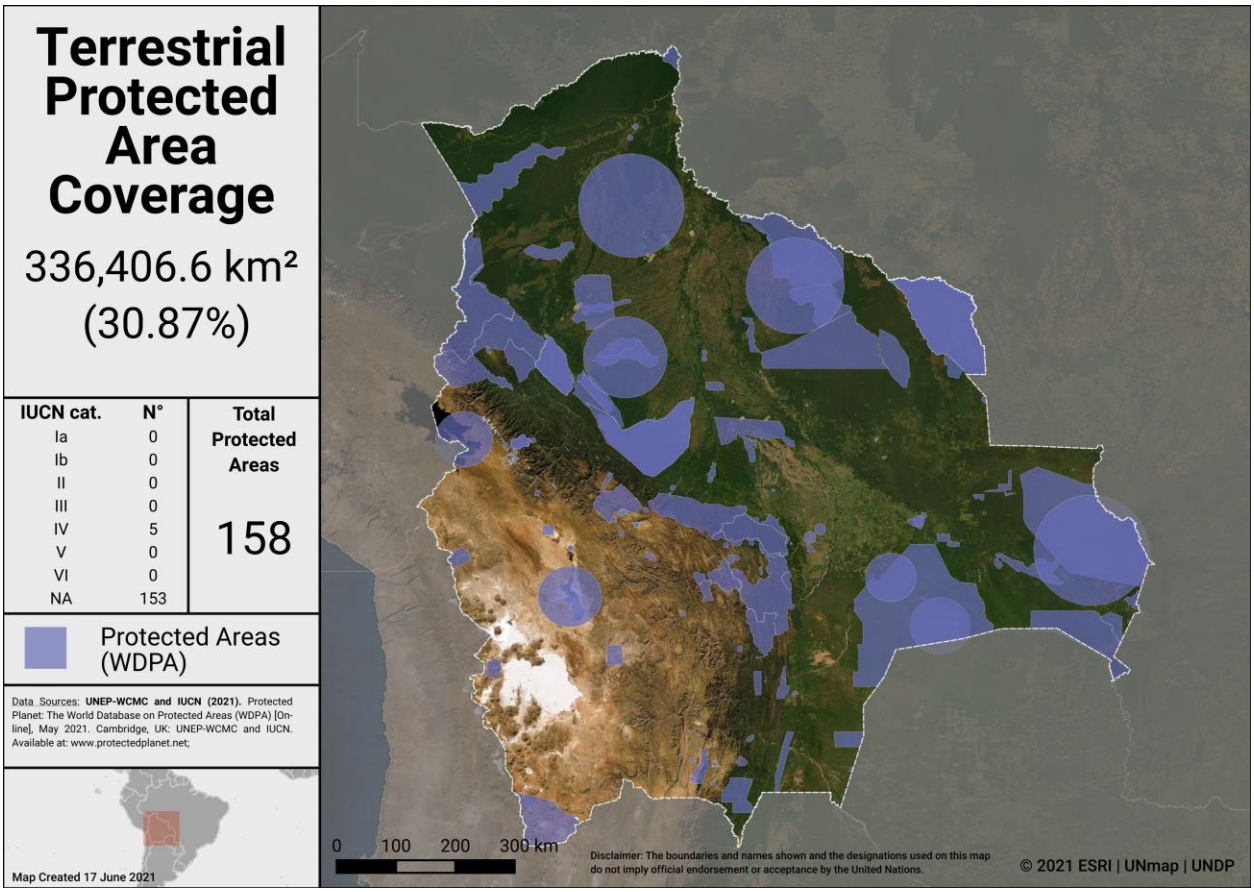
COVERAGE

As of May 2021, Bolivia (Plurinational State of) has **167** protected areas reported in the World Database on Protected Areas (WDPA). 6 PAs that are proposed and 3 UNESCO-MAB Biosphere Reserves are not included in the following statistics (see details on UNWP-WCMC's methods for calculating PA and OECM coverage **here**).

As of May 2021, Bolivia (Plurinational State of) has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for Bolivia (Plurinational State of):

- 30.9% terrestrial (158 protected areas, 336,406.6 km^2)



Terrestrial Protected Areas in Bolivia (Plurinational State of)

Potential OECMs

As recently reported (Donald et al., 2019), there are 3 unprotected Key Biodiversity Areas (KBAs) that are managed in a way consistent with the OECM definition

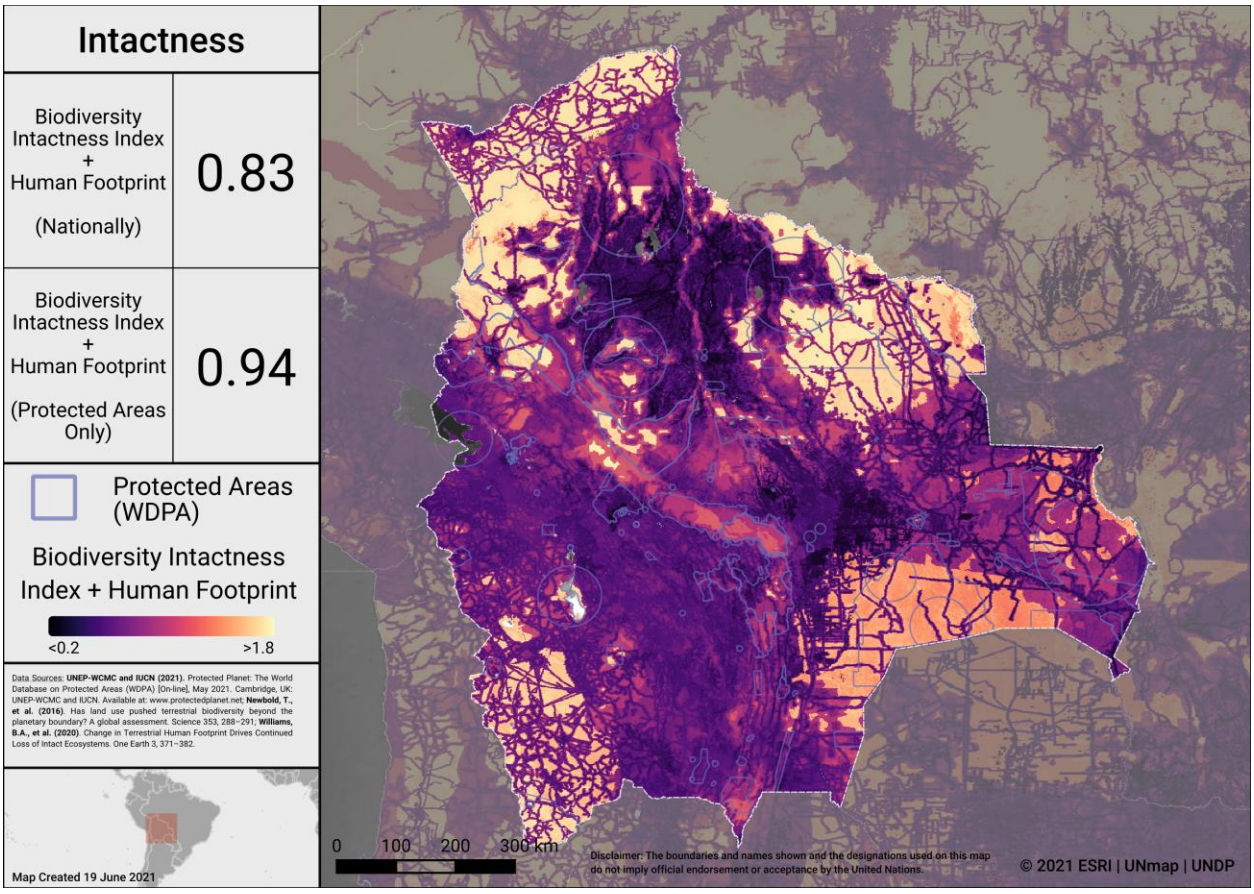
- Oeste de Río Mamoré

- Cuencas de Ríos Caine y Mizque
- Serranía Bella Vista

See Donald et al., 2019 for full details regarding these 3 potential OECMs.

Opportunities for action

Opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, as Bolivia (Plurinational State of) considers where to add new PAs and OECMs, the map below identifies areas in Bolivia (Plurinational State of) where intact areas are not currently protected. Focus on relatively intact areas, while addressing the elements in the following sections, could be considered if planning new PAs or OECMs.



Intactness in Bolivia (Plurinational State of)

To explore more on intactness visit the UN Biodiversity Lab: map.unbiodiversitylab.org.

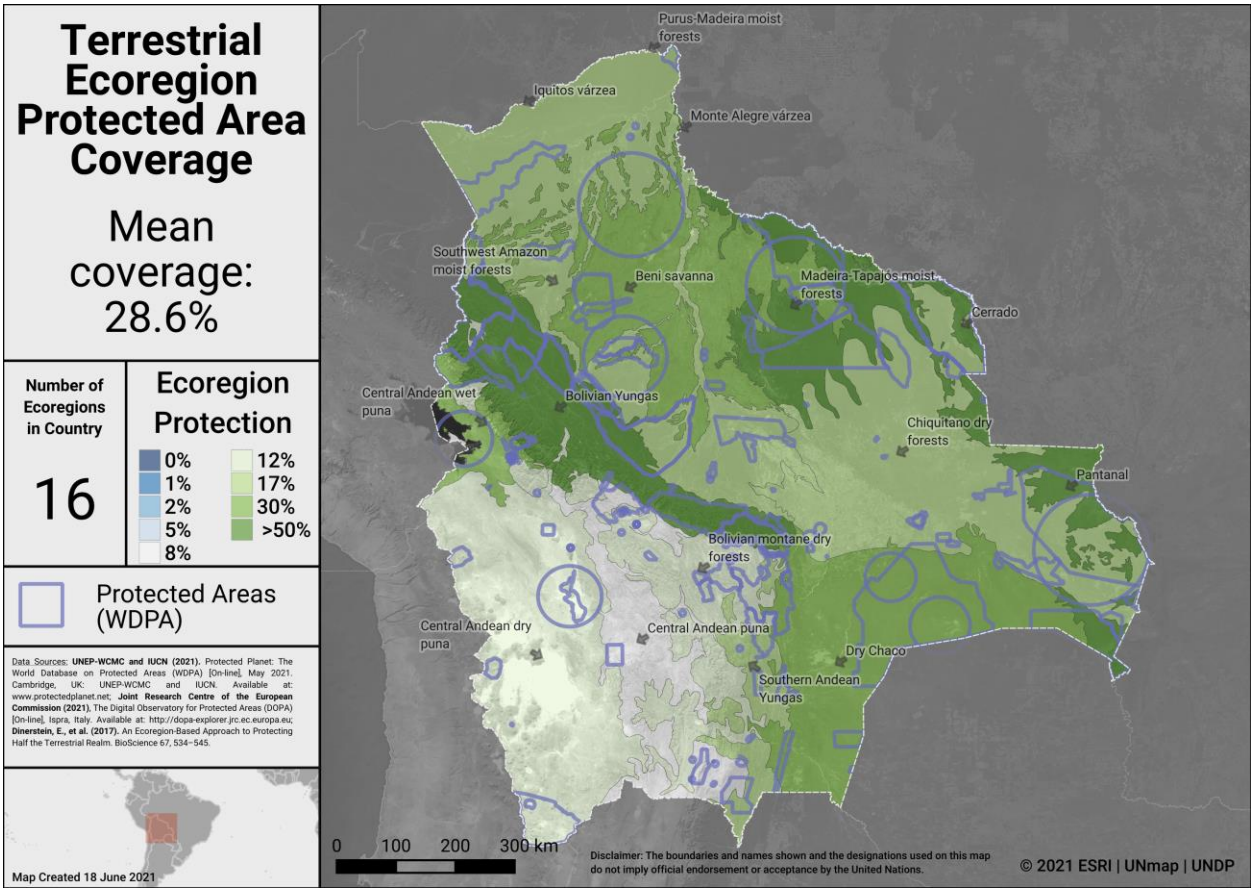
ECOLOGICAL REPRESENTATIVENESS

Ecological representativeness is assessed based on the PAs and OECMs coverage of broad-scale biogeographic units. Globally, ecoregions have been described for terrestrial areas (Dinerstein et al, 2017), marine coastal and shelf ecosystems (to a depth of 200m; Spalding et al 2007) and surface pelagic waters (Spalding et al 2012).

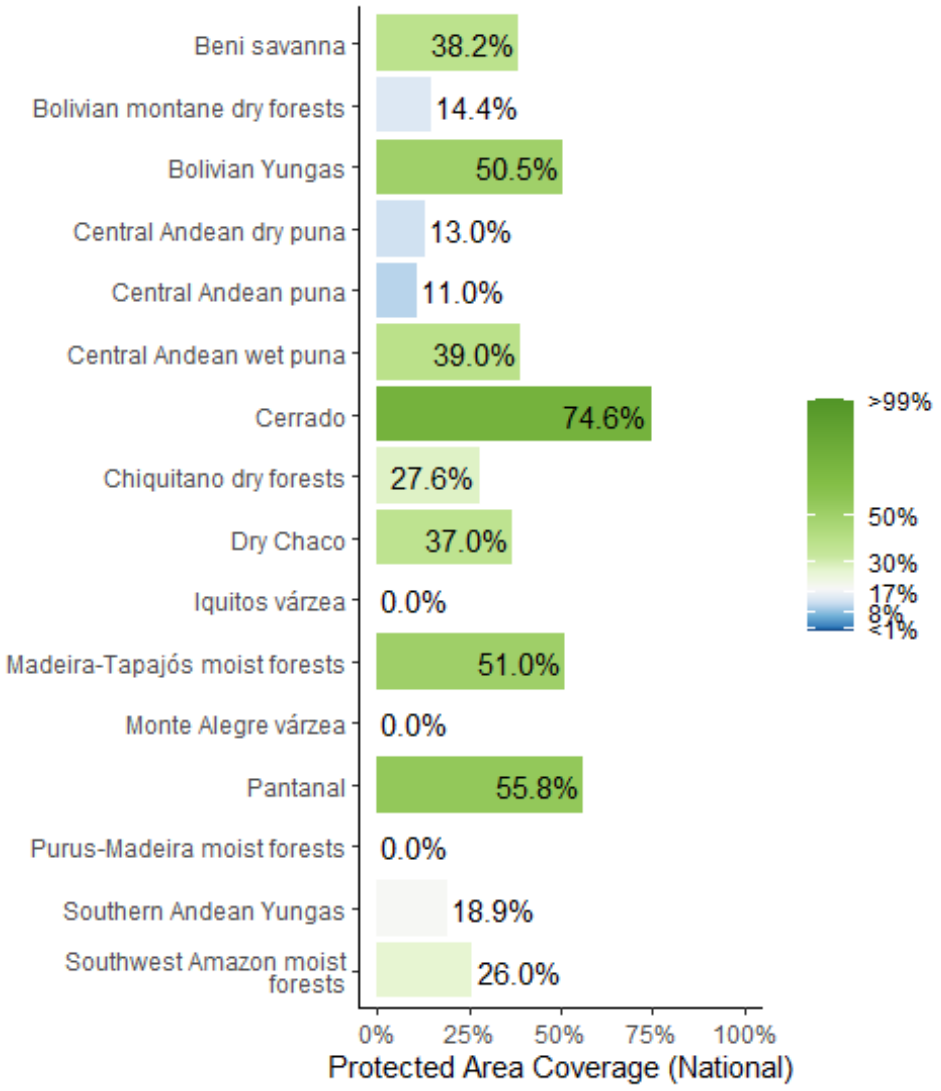
Bolivia (Plurinational State of) has 16 **terrestrial** ecoregions. Out of these:

- 13 ecoregions have at least some coverage from PAs and OECMs.
  - The 3 remaining ecoregions cover <0.01% of Bolivia
- 10 ecoregions have at least 17% protected within the country.
- The average terrestrial coverage of ecoregions is 28.6%.

A full list of ecoregions in Bolivia (Plurinational State of) is available in Annex I.



Terrestrial ecoregions in Bolivia (Plurinational State of)



Terrestrial ecoregions of the World (TEOW) in Bolivia (Plurinational State of)

Opportunities for action

There is opportunity for Bolivia (Plurinational State of) to increase protection in terrestrial ecoregions that have lower levels of coverage by PAs or OECMs; and focus on effective management for those that already have higher coverage.

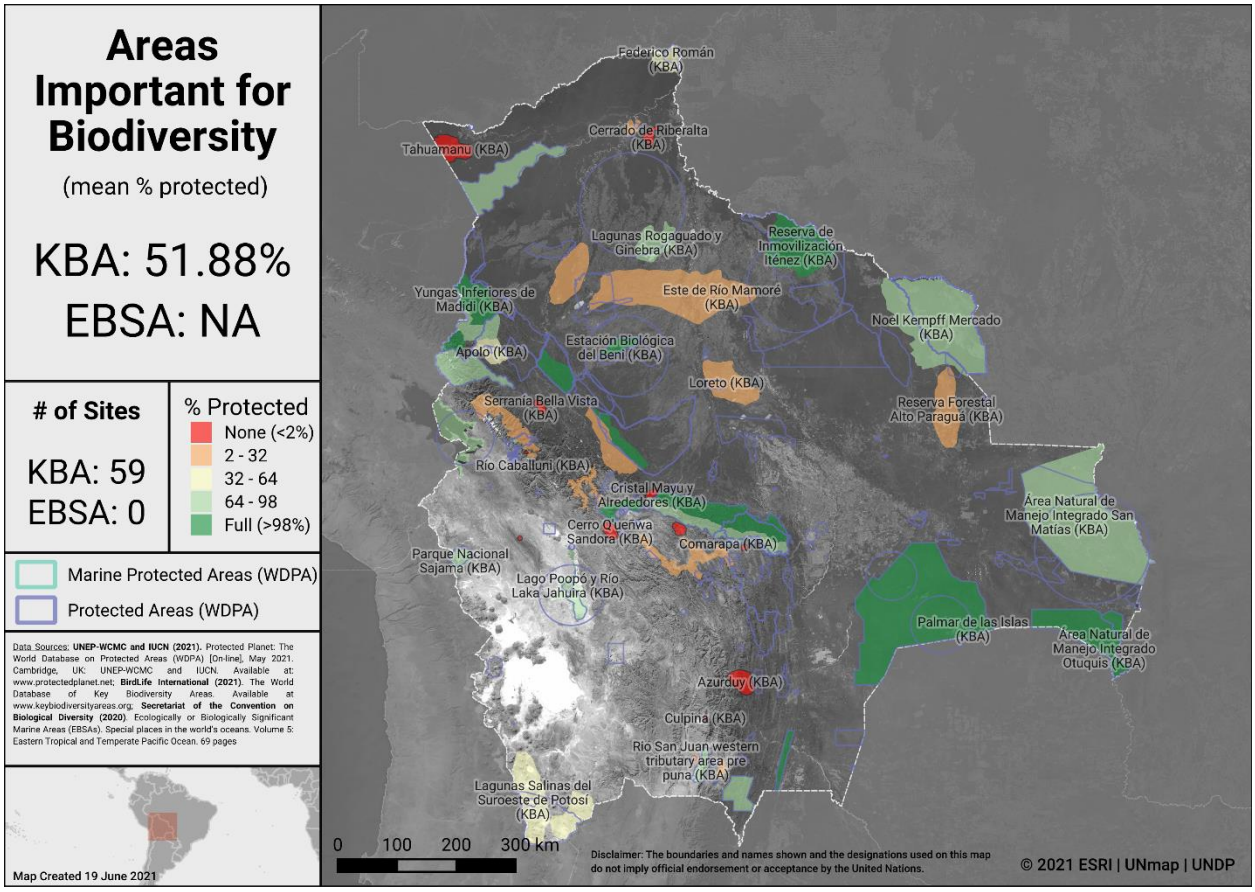
AREAS IMPORTANT FOR BIODIVERSITY

Key Biodiversity Areas (KBAs)

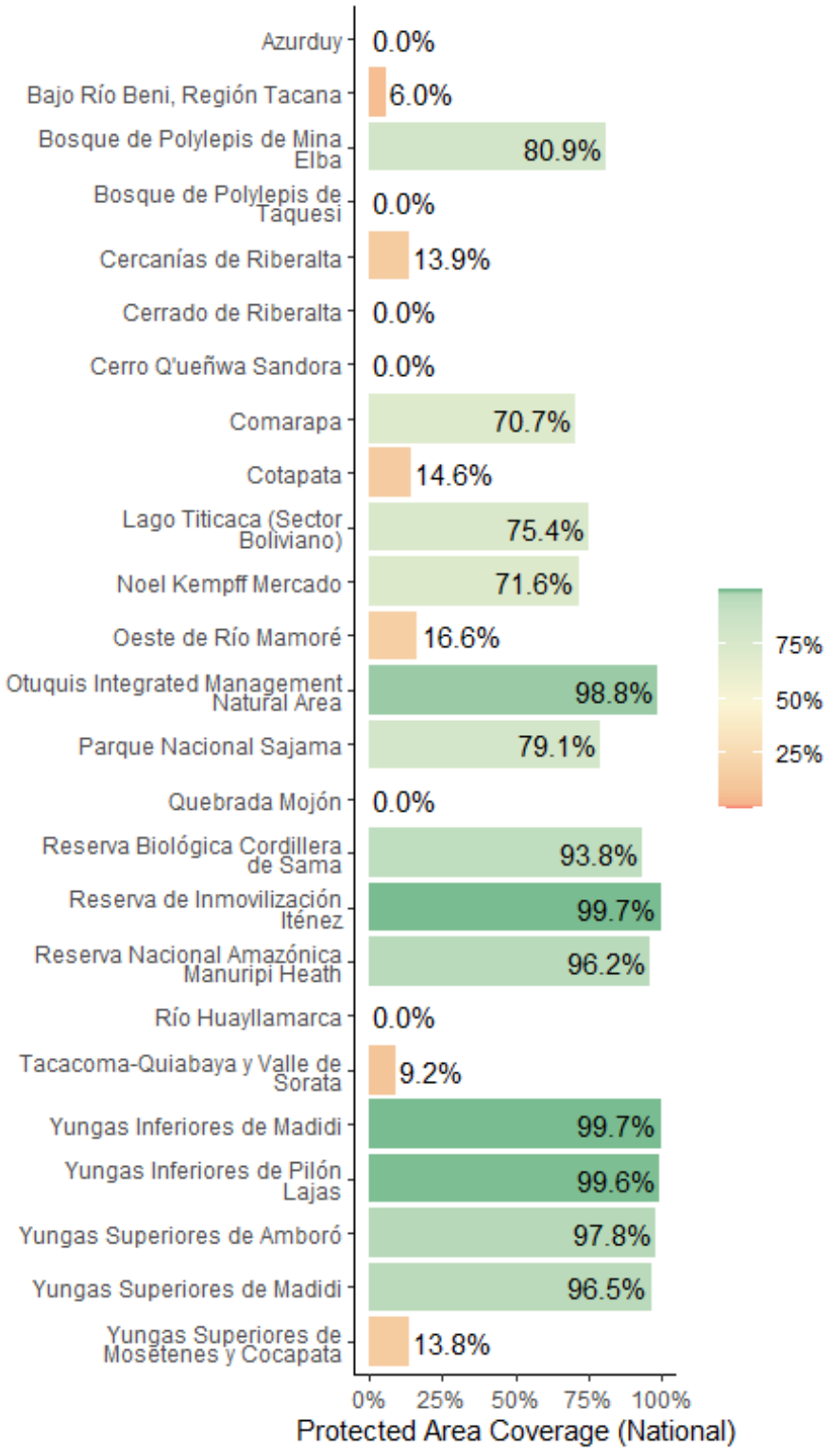
Protected area and OECM coverage of Key Biodiversity Areas (KBAs) provide one proxy for assessing the conservation of areas important for biodiversity at national, regional and global scales. KBAs are sites that make significant contributions to the global persistence of biodiversity (IUCN, 2016). The KBA concept builds on four decades of efforts to identify important sites for biodiversity, including Important Bird and Biodiversity Areas, Alliance for Zero Extinction sites, and KBAs identified through Hotspot ecosystem profiles supported by the Critical Ecosystem Partnership Fund. Incorporating these sites, the dataset of internationally significant KBAs includes Global KBAs (sites shown to meet one or more of 11 criteria in the Global Standard for the Identification of KBAs, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and irreplaceability), Regional KBAs (sites identified using pre-existing criteria and thresholds, that do not meet the Global KBA criteria based on existing information), and KBAs whose Global/Regional status is Not yet determined, but which will be assessed against the global KBA criteria within 8-12 years. Regional KBAs are often of critical international policy relevance (e.g., in EU legislation and under the Ramsar Convention on Wetlands), and many are likely to qualify as Global KBAs in future once assessed for their biodiversity importance for other taxonomic groups and ecosystems. To date, nearly 16,000 KBAs have identified globally, and information on each of these is presented in the World Database of Key Biodiversity Areas: www.keybiodiversityareas.org.

Bolivia (Plurinational State of) has **59** Key Biodiversity Areas (KBAs).

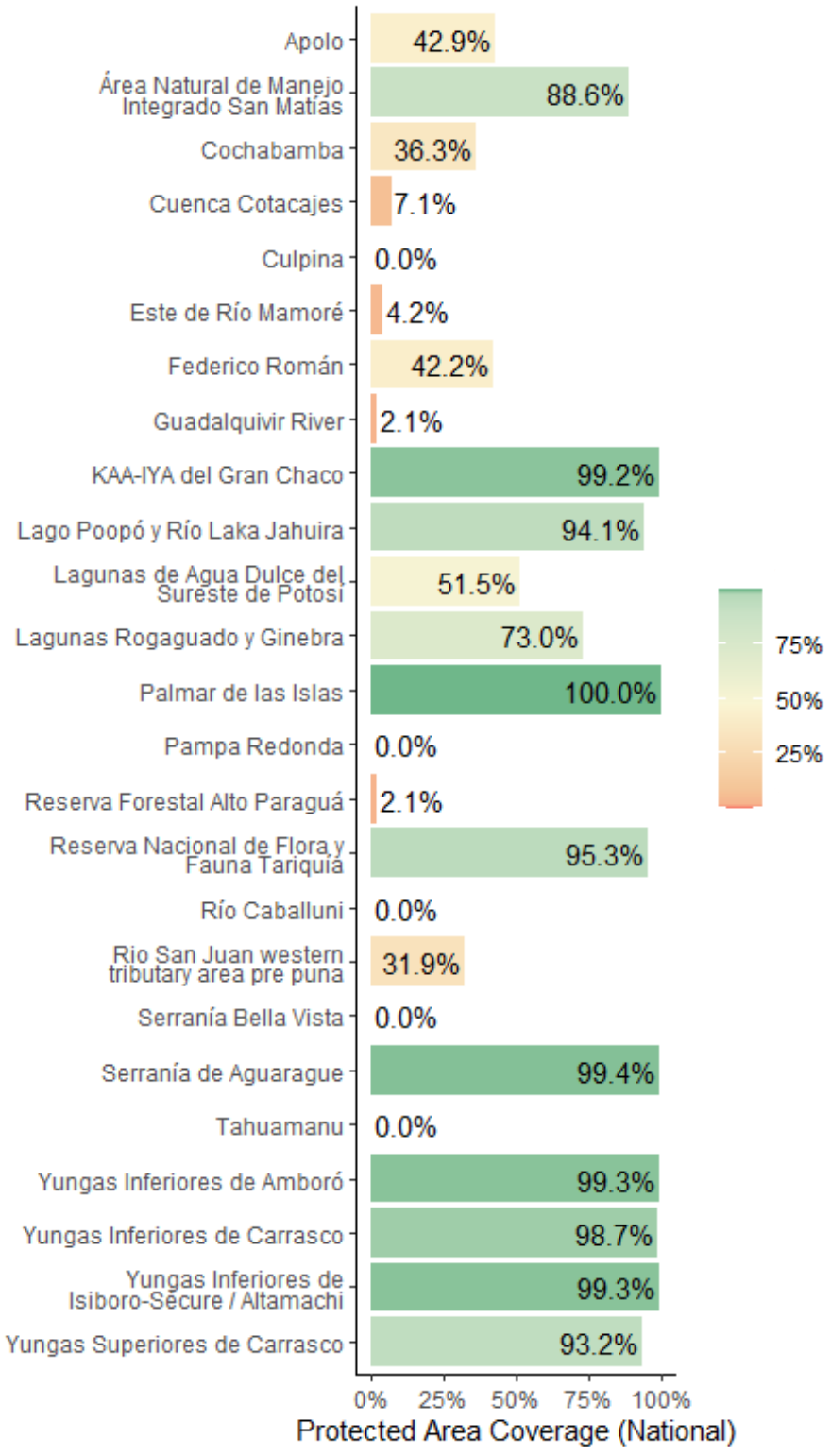
- Mean percent coverage of all KBAs by PAs and OECMs in Bolivia (Plurinational State of) is **51.9%**.
- **14** KBAs have full (>98%) coverage by PAs and OECMs.
- **33** KBAs have partial coverage by PAs and OECMs.
- **12** KBAs have no (<2%) coverage by PAs and OECMs.



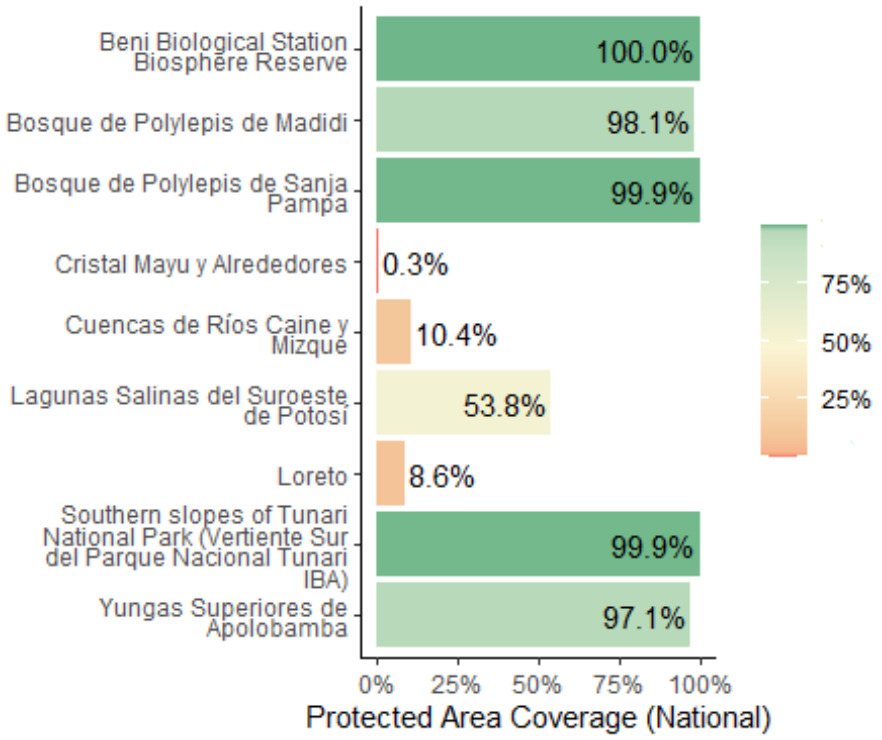
Areas Important for Biodiversity in Bolivia (Plurinational State of)



Key Biodiversity Area Coverage (KBA) in Bolivia (Plurinational State of)



Key Biodiversity Area Coverage (KBA) in Bolivia (Plurinational State of) (continued)



Key Biodiversity Area Coverage (KBA) in Bolivia (Plurinational State of) (continued)

The unprotected portion of 3 of the KBAs with low coverage from reported PAs (*Oeste de Río Mamoré; Cuencas de Ríos Caine y Mizque; Serranía Bella Vista)* are managed in a way consistent with the OECM definition (See Donald et al., 2019 for full details).

Opportunities for action

There is opportunity for Bolivia (Plurinational State of) to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

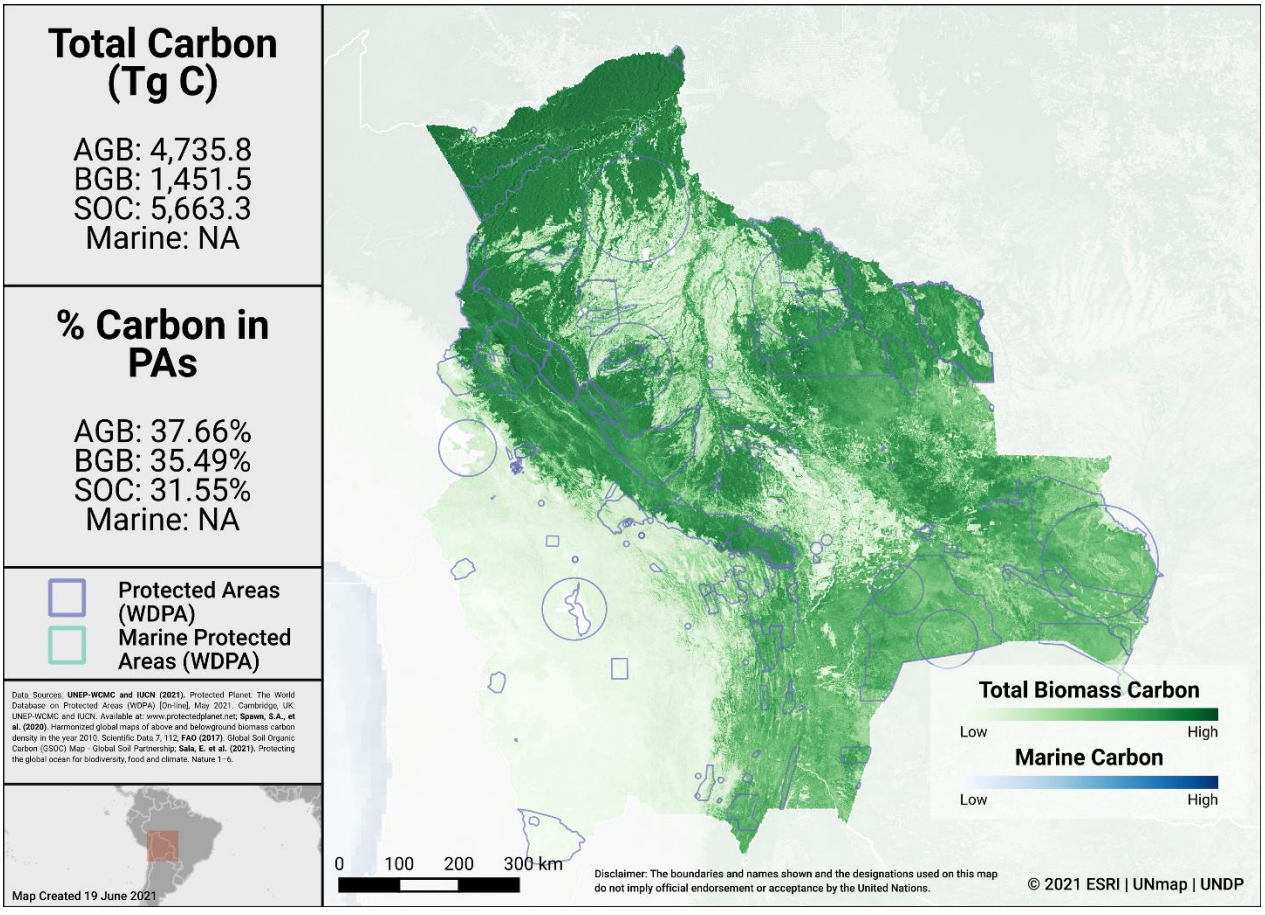
AREAS IMPORTANT FOR ECOSYSTEM SERVICES

There is no single indicator identified for assessing the conservation of areas important for ecosystem services. For simplicity, two services with available global datasets are assessed here (carbon and water). In future, other critical ecosystem services could be explored.

Carbon

Data for biomass carbon comes from temporally consistent and harmonized global maps of aboveground biomass and belowground biomass carbon density (at a 300-m spatial resolution); the maps integrate land-cover specific, remotely sensed data, and land-cover specific empirical models (see Spawn et al., 2020 for details on methodology). The Global Soil Organic Carbon Map present an estimation of SOC stock from 0 to 30 cm (see FAO, 2017 for details on methodology).

The map below presents the total carbon stocks in Bolivia (Plurinational State of) and the percent of carbon in protected areas. The total carbon stocks is 4,735.8 Tg C from aboveground biomass (AGB), with 37.7% in protected areas; 1,451.5 Tg C from below ground biomass (BGB), with 35.5% in protected areas and 5,663.3 Tg C from soil organic carbon (SOC), with 31.5% in protected areas.



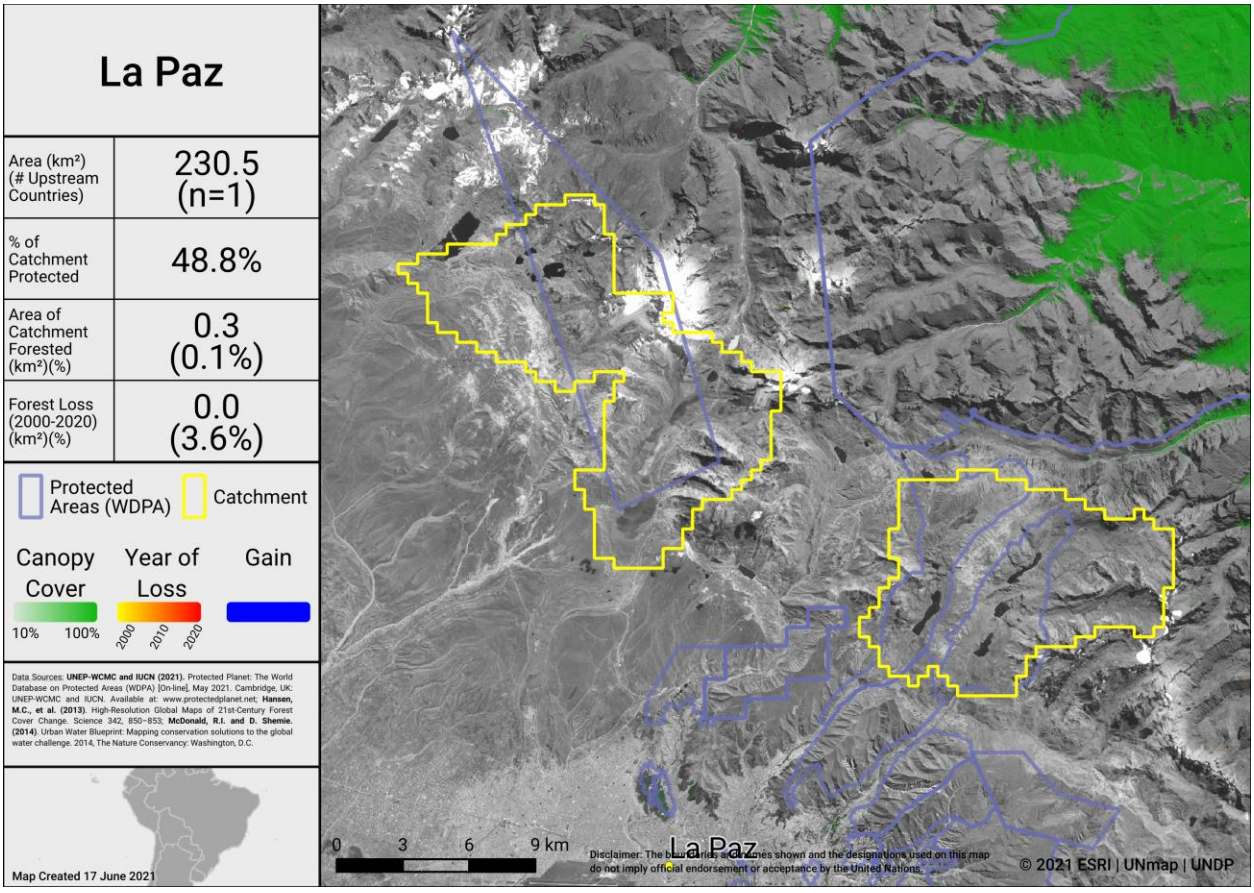
Carbon Stocks in Bolivia (Plurinational State of)

Water

Information on the water sources for 534 cities is available via the City Water Map (CWM) and provides details on the catchment area of the watershed that supplies these cities (see McDonald et al., 2014 for details on methodology).

Forests and intact ecosystems support stormwater management and clean water availability, especially for large urban populations. Research that has examined the role of forests for city drinking water supplies shows that of the world's 105 largest cities, more than 30% (33 cities) rely heavily on the local protected forests, which provide ecosystem services that underpin local drinking water availability and quality (Dudley & Stolton, 2003).

Drinking water supplies for cities in Bolivia (Plurinational State of) similarly depend on protected areas within and around water catchments. The map below shows the percentage forest cover and the forest loss from 2000-2020 in the most heavily populated water catchment of Bolivia (Plurinational State of). Intact catchments can support more consistent water supply and improved water quality.



Water supply area for the city of La Paz

Opportunities for action

For carbon, there is opportunity for Bolivia (Plurinational State of) to increase PA and OECM coverage in terrestrial areas with high carbon stocks, as identified in the map above. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

CONNECTIVITY & INTEGRATION

Two global indicators, the Protected Connected land indicator (ProtConn; EC-JRC, 2021; Saura et al., 2018) and the PARC-Connectedness indicator (CSIRO, 2019), have been proposed for assessing the terrestrial connectivity of PA and OECM networks (to date there is no global indicator for assessing marine connectivity).

Protected Connected Land Indicator (Prot-Conn)

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) in Bolivia (Plurinational State of) was 10.8%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Bolivia (Plurinational State of) is 0.55. This represents no significant change since 2010.

Corridor case studies

Below is information regarding a case study on corridors and connectivity in Bolivia (Plurinational State of):

Case study title	Type of study region	Greatest threat to connectivity	Approaches to conserving ecological corridors
The Jaguar Corridor Initiative: A rangewide species conservation strategy	terrestrial, rural	human land-use changes	• modelled ecological corridors • prioritised populations and ecological corridors • validated modelled corridors using a rapid assessment interview-based methodology • varied implementation action at local level

Further details are available in Hilty et al 2020.

Opportunities for action

There is opportunity for the targeted designation of PAs or OECMs in strategic locations for connectivity, and to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

GOVERNANCE DIVERSITY

There is a lack of comprehensive global data on governance quality and equity in PAs and OECMs. Here, we provide data on the diversity of governance types for reported PAs and OECMs.

As of May 2021, PAs in Bolivia (Plurinational State of) reported in the WDPA have the following governance types:

- 85.6% are governed by **governments**
  - 17.4% by federal or national ministry or agency
  - 67.1% by sub-national ministry or agency
  - 1.2% by government-delegated management
- 0.0% are under **shared** governance
- 0.0% are under **private** governance
- 0.0% are under **IPLC** governance
  - 0.0% by Indigenous peoples
  - 0.0% by local communities
- 14.4% **do not** report a governance type

OECMs

As of May 2021, there are **0** OECMs in Bolivia (Plurinational State of) reported in the WD-OECM, however, for 3 potential OECMs overlapping unprotected KBAs:

- 2 are governed by a Local community (e.g. community-managed reserve, farmer associations)
- 1 is governed by an NGO

See details in Donald et al., 2019.

Privately Protected Areas (PPAs)

From Gloss et al. (2019), a UNDP study on PPA data for Bolivia (Plurinational State of):

- As of 2010, there are 44 RPPNs (*Reservas Privadas de Patrimonio Natural*) covering 74,480 ha in Bolivia
- PPAs **are not** formally defined in PA legislation (however, Bolivia's Forest Law provides a legal basis for private land conservation (e.g., through RPPNs))
- PPAs **are not** directly identified in Bolivia (Plurinational State of)'s recent NBSAP.
- PPAs **are not** included as part of the current PA network.
  - 1 'Private Protected Area' (Corvalan) is currently included in the WDPA (though governance type is not reported).

See additional info in country profile (http://nbsapforum.net/knowledge-base/resource/bolivia-country-profile-international-outlook-privately-protected-areas) and in Annex II.

Territories and areas conserved by Indigenous Peoples and local communities (ICCAs)

From Kothari et al. (2012) potential ICCAs (or similar designation) in Bolivia (Plurinational State of) include:

- In total, there are 258 claims for *Territorios indígenas originarios campesinos* (TIOCs) covering ~40 m.ha
  - 190 are recognized (20.7 m.ha)
  - **54** fit the ICCA definition (**12 m. ha**)
  - As further information is obtained, it is possible that most or all TIOCs will be identifiable as ICCAs

Other Indigenous lands

Lands managed and/or controlled by Indigenous Peoples cover an area of 289,477.0 km^2, of which 194,648.0 km^2 falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 207,763.0 km^2 (for details on analysis see Garnett et al., 2018).

For Bolivia (Plurinational State of), evidence for the presence of Indigenous Peoples comes from: Indigenous Work Group on Indigenous Affairs. Indigenous World 2017 (Indigenous Working Group on Indigenous Affairs, 2017).

Boundaries of the lands Indigenous Peoples manage or have tenure rights over come from: Amazônia Socioambiental. Rede Amazônica de Informação Socioambiental Georreferenciada. https://www.amazoniasocioambiental.org/mapas/ (2017); GeoBolivia. http://geo.gob.bo/portal/ (2017).

Opportunities for action

Explore opportunities for governance types that have lower representation, for Bolivia (Plurinational State of) this could relate to governance by Indigenous Peoples and/or local communities (IPLC), shared governance, etc. Increase efforts to identify the governance types for the 14.4% of sites that do not have their governance type reported.

There is also opportunity for Bolivia (Plurinational State of) to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. Examples of existing tools and methodologies include: Governance Assessment for Protected and Conserved Areas (Franks & Brooker, 2018), Social Assessment of Protected Areas (Franks et al 2018), and Site-level assessment of governance and equity (IIED, 2020). As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

Equator Prize Projects

The Equator Initiative brings together the United Nations, governments, civil society, businesses and grassroots organizations to recognize and advance local sustainable development solutions for people, nature and resilient communities.

The Equator Prize projects provide examples of unique and locally based governance of natural resources. Bolivia (Plurinational State of) has the following Equator Prize winners that showcase examples of local, sustainable community action:

Organization	Year	Project Description
Consejo Indígena del Pueblo Tacana	2015	In the heart of one of the most biodiverse areas of Bolivia, Consejo Indígena del Pueblo Tacana has secured collective land title to more than 389,300 hectares of forest for the Tacana people. After successfully presenting their land claim to the government of Bolivia, the group built consensus on land use and natural resource management amongst the 20 communities living in the territory. Their land use strategy prioritizes sustainable livelihoods, biodiversity conservation, and forest protection and has resulted in four times less deforestation in Tacana territories than surrounding lands. The group has also launched 24 community-based associations in agroforestry, ecotourism, cacao production, and sustainable caiman harvesting that have benefited more than 50 percent of Tacana households. Indigenous Peoples have gone from poorly paid day laborers to members of associations that provide sustainable livelihoods. An independent women's group has been established to coordinate work across the 20 communities with a focus on food security and traditional livelihoods. The Tacana territory is a connectivity corridor between the Madidi protected area and two important bird areas, providing critical protection for the more than 50 endangered wildlife and plant species in the territory, including the endangered jaguar and the white-lipped peccary.
Capitania del Alto y Bajo Izozog (CABI, Captaincy of the Upper and Lower Izozog)	2004	Capitania del Alto y Bajo Izozog (CABI, Captaincy of the Upper and Lower Izozog) represents more than 10,000 members of Bolivia's Izoceño-Guaraní people in a landmark co-management agreement in the country's Gran Chaco region. With technical support from the Wildlife Conservation Society, CABI negotiated with the Bolivian government for establishment of the 3.4 million-hectare Kaa-Iya del Gran Chaco National Park and Integrated Management Natural Area, one of the largest national parks in South America. The innovative management agreement at the heart of the park's creation gives co-management rights to the Izoceño-Guaraní people. CABI has also successfully lobbied for titling of Indigenous territories within the park, with the eventual aim of acquiring ownership of around 1.5 million hectares. These gains have helped to protect the people's land from the threats posed by large-scale cattle ranching and commercial soybean, sunflower, and cotton farming.

Organization	Year	Project Description
Asociación de Apicultores de la Reserva de Tariquía AART (NATIVA)	2008	Asociación de Apicultores de la Reserva de Tariquía (AART, Tariquía Reserve Beekeepers' Association) is an Indigenous honey producer association that has been recognized nationally for producing the best organic honey in Bolivia. The group works within the Tariquía Flora and Fauna National Reserve, a protected area covering 610,000 acres of dense, semi-deciduous, montane Tucumano-Boliviano forest. The association is certified as an ecological community organization which shares its costs, profits, production techniques and knowledge equally amongst cooperative members. AART is responsible for the purchase and commercialization of honey from all producers on the reserve. The association incorporates traditional ecological knowledge in their honey extraction techniques. By adding value to this livelihood activity, the initiative has successfully reduced pressures on the reserve's unique biodiversity.
Chalalán Albergue Ecológico	2004-2008	Chalalán Albergue Ecológico (Chalalán Eco-lodge) serves as a model for community-based ecotourism in Bolivia, as an example of the effectiveness of this low-impact commercial activity in bringing benefits to local communities and in conserving vital biological diversity. Supported by the Inter-American Development Bank and Conservation International, who Founded the initiative with grants totaling almost USD 1.5 million in 1994, the project has successfully demonstrated its long-term financial viability and high level of community ownership. Located in the 1.89 million-hectare Madidi Protected Area in northern Bolivia, the Chalalan initiative benefits the remote Indigenous community of San #_é de Uchupiamonas, which sustainably conserves around 210,000 hectares of land as their Tierra Comunitaria de Orígen. The lodge’s visitors are able to walk along trails covering 30 kilometers of biologically diverse forest within 10,000 ha of community land reserved for ecotourism activities.

Organization	Year	Project Description
Consejo Regional Tsimane' Mosetene - Pilon Lajas (CRTM PL)	2010	Consejo Regional Tsimané Mosetene (CRTM, Tsimané Mosetene Regional Council of Pilón Lajas) works in Bolivia's Biosphere Reserve to conserve biodiversity and to protect the rights of the Indigenous Peoples within the Reserve. The Regional Council jointly manages the Reserve with Bolivia's National Service of Protected Areas. In addition to safeguarding wildlife in the protected area by tackling poaching, advancing sustainable agriculture and developing a forestry management plan, the Regional Council group has been involved in the construction of schools in 14 different communities. Additional activities aimed at improving local livelihoods include organic honey production, the establishment of associations for coffee and cocoa growers, and support for local artisans.

Photo from Equator Prize Project: Consejo Indígena del Pueblo Tacana

PROTECTED AREA MANAGEMENT EFFECTIVENESS

This section provides information on the coverage of PAs and OECMs with completed protected area management effectiveness (PAME) assessments as reported in the global database (GD-PAME). The proportion of terrestrial and marine PAs with completed PAME assessments is also calculated and compared with the 60% target agreed to in COP-10 Decision X/31. Information is also included regarding changes in forest cover nationally within PAs and OECMs.

Protected area management effectiveness (PAME) assessments

As of May 2021, Bolivia (Plurinational State of) has 167 PAs reported in the WDPA; of these PAs, 25 (15.0%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 14.3% (155,396 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 46.2% of the area of terrestrial PAs have completed evaluations.

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs.

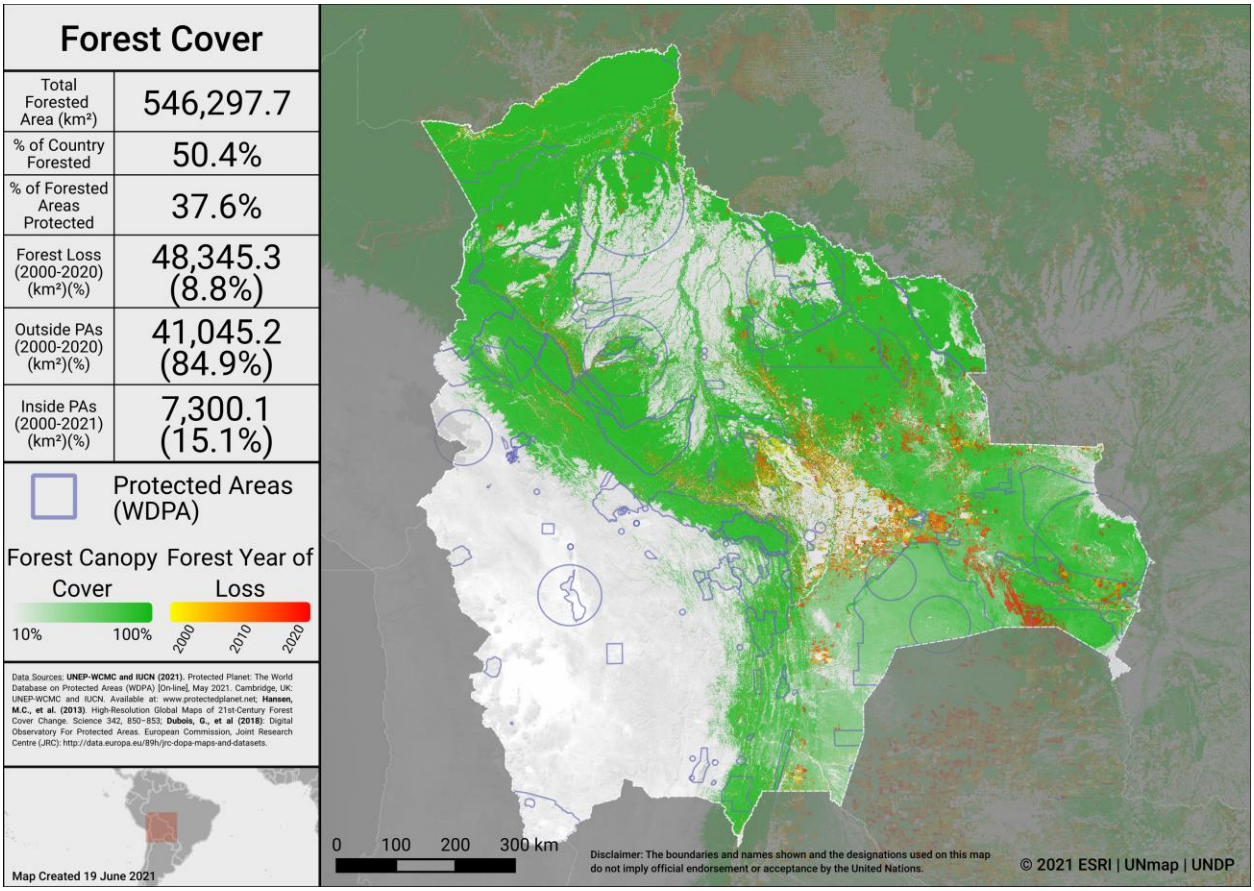
OECMs

As of May 2021, there are 0 OECMs in Bolivia (Plurinational State of) reported in the WD-OECM; however, there are 3 unprotected KBAs which may fit the OECM definition. Responding to 'How effective is the management in conserving biodiversity?':

- 1 potential OECM is Effective
- 1 potential OECM is Partly effective
- For 1 potential OECM, there is no info

Changes in forest cover in protected areas and OECMs

Forested areas in Bolivia (Plurinational State of) cover approximately 50.4% of the country, an area of 546,297.7 km^2. Approximately 37.6% (205,637.6 km^2) of this is within the protected area estate of Bolivia (Plurinational State of). Over the period 2000-2020 loss of forest cover amounted to over 48,345.3 km^2, or 4.5% of the country (8.8% of forest area), of which 7,300.1 km^2 (15.1% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Bolivia (Plurinational State of) from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss.



Forest Cover and Forest Loss in Bolivia (Plurinational State of)

Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs, therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations to achieve the target.

There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

SECTION II: EXISTING PROTECTED AREA AND OECM COMMITMENTS

PRIORITY ACTIONS FROM 2015-2016 REGIONAL WORKSHOPS

National priority actions for Aichi Biodiversity Target 11 were provided by Parties following a series of regional workshops in 2015 and 2016. The Capacity-building workshop for Latin America and the Caribbean on achieving Aichi Biodiversity Targets 11 and 12 took place 28 September - 1 October 2015 in Curitiba, Paraná, Brazil. Progress towards the quantitative targets for marine and terrestrial coverage has been assessed based on data reported in the WDPA and WD-OECM as of 2021. For more information, see the workshop report at: https://www.cbd.int/meetings/

Summary from the workshop:

Priority actions and identified opportunities, if completed as proposed, will provide benefits for the qualifying elements of Aichi Biodiversity Target 11.

The following actions were identified during the workshops:

Terrestrial coverage: Consolidate the Plurinational system of protected areas under the State Constitution and the Framework Law of Mother Earth.

Ecological representation:

1) Increase the protection of ecoregions
2) Do a representativity assessment and new gap analysis.

Connectivity: Identification of corridors and connectivity areas and recognize them with relevant standard.

Management effectiveness: Revise legislation.

Governance and Equity: Adjust regulatory framework.

OECMs: perform the appropriate analysis to determine other measures.

No actions were identified for these elements of Target 11: Areas Important for biodiversity and ecosystem services, Integration into the wider landscape

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

Bolivia (Plurinational State of) has submitted an NBSAP during the Strategic Plan for Biodiversity 2011-2020 (most recent NBSAP is available at: https://www.cbd.int/nbsap/search/).

Strategic Objective 2.2: Strengthen the instruments of territorial management of biodiversity in protected areas, forests, wetlands and others, as mechanisms for articulating the priorities of the State, the rights of Mother Earth and the Bolivian population.

- *Priority Action*: Implement the Plurinational System of Protected Areas (SPAP) in coordination between the national and sub national levels;
    - By 2020, Capacities strengthened at the national and subnational level for the management and consolidation of the SPAP
    - By 2025, The SPAP is being implemented.
    - By 2030, All national protected areas are solidly managed and integrated into the territorial spaces to which they belong.
- *Priority Action*: Articulate the implementation of the Strategy for the Integral Management of Wetlands and RAMSAR Sites in Bolivia (2017-2026) at the multisectoral and subnational level.
    - By 2020, Technical instruments for the analysis, management and evaluation of wetland management have been developed
    - By 2025, The Strategy for the Comprehensive Management of Wetlands and Sites inscribed on the RAMSAR List has been implemented.
    - By 2030, Nationally prioritized wetland management implemented in a sustainable way
- *Priority Action*: Develop management tools for protected areas located or declared in the AIOCs.
    - By 2020, Management processes have been established in protected areas located or declared in the AIOC

APPROVED GEF-5 & GEF-6 PROTECTED AREA PROJECTS

Approved GEF-5 and GEF-6 PA-related biodiversity projects

This includes biodiversity projects from the fifth and sixth replenishment of the Global Environment Facility (GEF-5 and GEF-6) with a clear impact of the quantity or quality of PAs; also including some projects occurring within the wider landscapes/seascapes around PAs. Only those with a status of 'project approved' or 'concept approved' as of June 2019 were considered. The qualifying elements likely benefiting from each GEF project is assessed based on a keyword search of Project Identification Forms (PIF). Where spatial data for the proposed PAs was available, further details (based on an analysis by UNDP) regarding their impacts for ecological representation, coverage of KBAs, and coverage of areas important for carbon storage is included.

GEF ID	PA increase?	Area to be added (km^2)	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4481	No	N/A	All except Ecosystem services
5755	No	N/A	Areas important for biodiversity; Effectively managed; Equitably managed; Integration
9248	No	N/A	All except Connectivity

OTHER ACTIONS/COMMITMENTS

Leaders' Pledge for Nature

Bolivia (Plurinational State of) **has** signed onto the Leaders' Pledge for Nature.

Political leaders participating in the United Nations Summit on Biodiversity in September 2020, representing 84 countries from all regions and the European Union, have committed to reversing biodiversity loss by 2030. By doing so, these leaders are sending a united signal to step up global ambition and encourage others to match their collective ambition for nature, climate, and people with the scale of the crisis at hand.

Commitments for PAs and OECMs from Other National Policies

Policy document	Ecosystem	Policy text
Nationally Determined Contribution	Forest ecosystems	Zero illegal deforestation by 2020
Nationally Determined Contribution	Grasslands & Agricultural systems	Strengthen community-based farming, agroforestry
National Development Plan 2016-2020	Forest ecosystems	Eliminate illegal deforestation throughout the territory
National Police on Water Quality for Human Consumption	Wetland ecosystems	protect micro-basins to collect or recharge water for human consumption, including via afforestation or reforestation avoid changes in land use in the upper basins
National Development Plan 2016-2020	Grasslands & Agricultural systems	Progressively achieve greater participation of the forestry sector in GDP
National Biodiversity Strategy Action Plan	Forest ecosystems	By 2030, biodiversity management respects NPIOCs' rights and knowledge , contributing to conservation and sustainable biodiversity use, generating important revenues for families
National Biodiversity Strategy Action Plan	Forest ecosystems	By 2025, guidelines to identify biodiversity conservation areas approved and in the process of being implemented
Land Degradation Neutrality Targets	Forest ecosystems	Reduce +90% illegal deforestation by 2028

Policy document	Ecosystem	Policy text
National Strategy for Forests and Climate Change	Forest ecosystems	Avoid deforestation by implementing the REDD+ mechanism, to avoid the conversion of forest land into other uses
Integrated Management Strategy on Wetlands and Ramsar Sites	Wetland ecosystems	Prepare a national wetland inventory that assesses the current state and level of ecological integrity in order to establish priorities for wetland conservation, restoration and categorization, as well as standard methods for inventory compilation
Land Degradation Neutrality Targets	Grasslands & Agricultural systems	Explore diverse options of non-agricultural rural employment to avoid opening new lands

ANNEX I

FULL LIST OF ECOREGIONS

Ecoregion Name	Area (km^2)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km^2)	% Protected in Country
Beni savanna	125,429.1	99.9	11.6	47,864.6	38.2
Bolivian montane dry forests	72,779.6	100.0	6.7	10,497.7	14.4
Bolivian Yungas	85,517.8	94.8	7.9	43,222.3	50.5
Central Andean dry puna	142,426.6	55.9	13.1	18,532.1	13.0
Central Andean puna	56,209.9	26.6	5.2	6,178.6	11.0
Central Andean wet puna	17,778.6	15.2	1.6	6,936.2	39.0
Cerrado	5,930.9	0.3	0.5	4,423.7	74.6
Chiquitano dry forests	164,080.8	71.4	15.1	45,358.2	27.6
Dry Chaco	122,675.7	15.6	11.3	45,410.6	37.0
Iquitos várzea	27.7	0.0	0.0	0.0	0.0
Madeira-Tapajós moist forests	59,418.3	8.3	5.5	30,315.4	51.0
Monte Alegre várzea	32.3	0.0	0.0	0.0	0.0
Pantanal	32,111.3	18.8	3.0	17,927.3	55.8
Purus-Madeira moist forests	5.8	0.0	0.0	0.0	0.0
Southern Andean Yungas	27,691.2	36.8	2.6	5,239.3	18.9
Southwest Amazon moist forests	168,840.2	22.6	15.6	43,855.0	26.0

ANNEX II

ADDITIONAL DETAILS ON PPAs

• ~56% of titled land in Bolivia is held by rural Indigenous communities (*comunidades originarias indígenas campesinas*), and ~25% held by individuals

• Although PPAs are not formally defined in PA legislation, Bolivia's Ley Forestal Nº 1700 (Forestry Law) provides legal basis for private land conservation, through a variety of means, most commonly through the creation of private reserves (RPPNs; Reservas Privadas de Patrimonio Natural)

• Financial Incentives for Private Land Conservation include: tax and fee incentives; incentives to conduct restoration of degraded lands that have been classified as national priority; payments for environmental services (PES)

• As of 2010, there were 44 RPPNs registered in Bolivia (74,480 ha)

• Ecological easements are another category of protected lands (no info on total extent)

• There is 1 'Private Protected Area' (Corvalan) currently included in the WDPA (though governance type is not reported).

Case studies/best practices:

• *Private Reserves of Natural Patrimony within Ñuflo de Chávez region, Santa Cruz*: Of the 17 legally recognized Private Reserves of Natural Patrimony, 11 are located within the Ñuflo de Chávez region, 16 within the Santa Cruz department; most address conservation of the Chiquitano Dry Forest; clustering of private reserves in vulnerable zones is a practice that could be replicated throughout other threatened.El Refugio Huanchaca: 125,000-acre reserve and research station, adjacent to the Noel Kempff Mercado National Park

• *Private and community conservation through Reciprocal Watershed Agreements (ARAs) in the southern Andes*: ARAs are a mechanism for conserving ecosystem services and biodiversity that involves rural Indigenous and peasant families in voluntary agreements for the conservation of forests and water sources; they act as buffer zones and areas of connectivity around and between national PAs (e.g. around Parque Nacional Amboró at least 536 families have dedicated part of their land to conserving forests and water, covering 21,467 ha through private action).

See additional info in country profile (http://nbsapforum.net/knowledge-base/resource/bolivia-country-profile-international-outlook-privately-protected-areas).

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