Aichi Biodiversity Target 11 Country Dossier: GUATEMALA

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GLOSSARY

AZEs   Alliance for Zero Extinction sites
CEPF   Critical Ecosystem Partnership Fund
EBSA   Ecologically or Biologically Significant Marine Area
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
MEOW   Marine Ecosystems of the World
MPA   Marine Protected 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
PPOW   Pelagic Provinces of the World
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

The designations employed and the presentation of material in this dossier do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Convention on Biological Diversity (SCBD) or United Nations Development Programme (UNDP) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The information contained in this publication do not necessarily represent those of the SCBD or UNDP.

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.

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 - Terrestrial & Marine

- **Status:** as of May 2021, terrestrial coverage in Guatemala is 22,115.6 km^2 (20.1%) and marine coverage is 953.8 km^2 (0.8%).

- **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 when planning new PAs or OECMs.

Ecological Representativeness– Terrestrial & Marine

- **Status:** Guatemala contains 12 terrestrial ecoregions, 2 marine ecoregions, and 1 pelagic province: the mean coverage by reported PAs and OECMs is 15.2% (terrestrial), 30.6% (marine), and 0.0% (pelagic); 2 terrestrial ecoregions and 1 pelagic province have no coverage.

- **Opportunities for action:** there is opportunity for Guatemala to increase protection in terrestrial and marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs. Ecoregions which currently have no coverage by PAs or OECMs are key areas for action.

Areas Important for Biodiversity
- **Status:** Guatemala has 26 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 30.7%, while 7 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Guatemala 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 Guatemala, 38.5% of aboveground biomass carbon, 34.8% of belowground biomass carbon, 31.3% of soil organic carbon, 1.3% of carbon stored in marine sediments is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for Guatemala to increase PA and OECM coverage in both marine and 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 10.6%.

- **Opportunities for action:** there is opportunity for the designation of connecting PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving 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 type for reported PAs in Guatemala is: 42.9% under Government (24.1% Sub-national ministry or agency; 17.3% Federal or national ministry or agency; 0.6% Government-delegated management).

- **Opportunities for action:** explore opportunities for governance types that have lower representation, for Guatemala this could include governance by Indigenous Peoples and/or local communities (IPLC), etc.

- There is also opportunity for Guatemala 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:** 52.1% of terrestrial PAs and 93.5% of marine 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 and **has** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs 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 Guatemala. Section I of the dossier presents data on the current status of Guatemala'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 Guatemala, in relation to each Target 11 element. The analyses present options for improving Guatemala's area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Guatemala's existing PA and OECM 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 - TERRESTRIAL & MARINE

As of May 2021, Guatemala has **352** protected areas reported in the World Database on Protected Areas (WDPA). 2 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, Guatemala has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for Guatemala:

- 20.1% terrestrial (352 protected areas, 22,115.6 km²)

- 0.8% marine (3 protected areas, 953.8 km²)
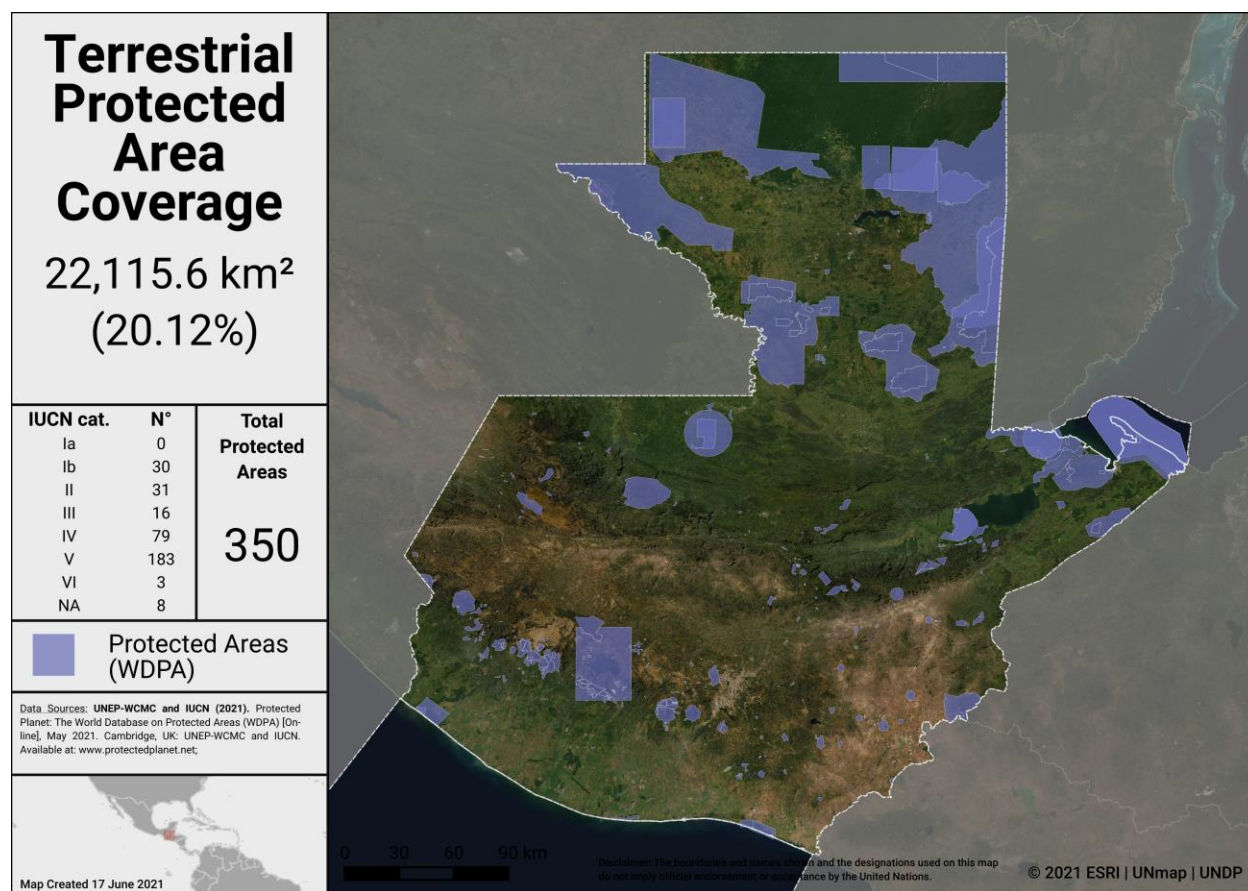
Terrestrial Protected Areas in Guatemala
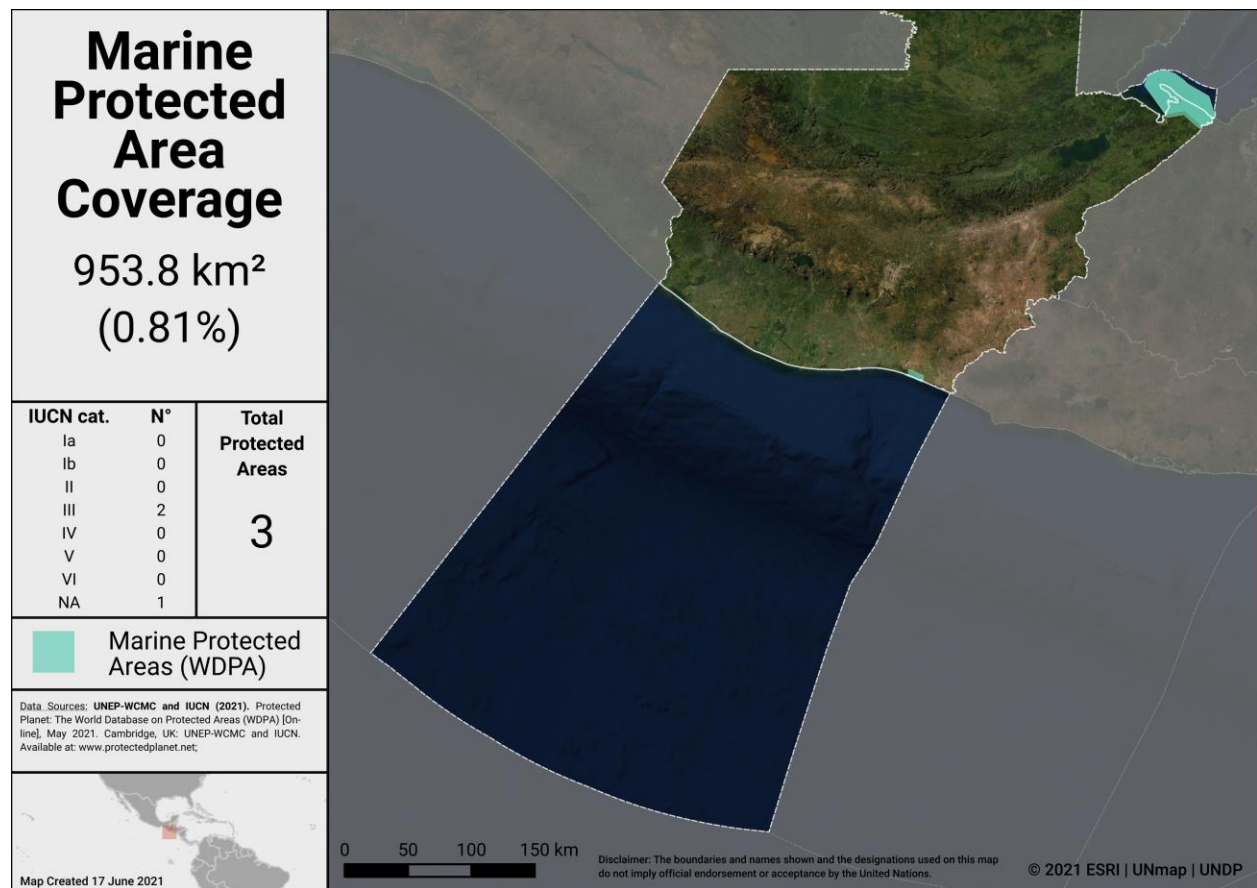
Marine Protected Areas in Guatemala

Potential OECMs

There are currently no potential OECM examples for Guatemala.

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 Guatemala considers where to add new PAs and OECMs, the map below identifies areas in Guatemala where intact terrestrial areas are not currently protected. Focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.
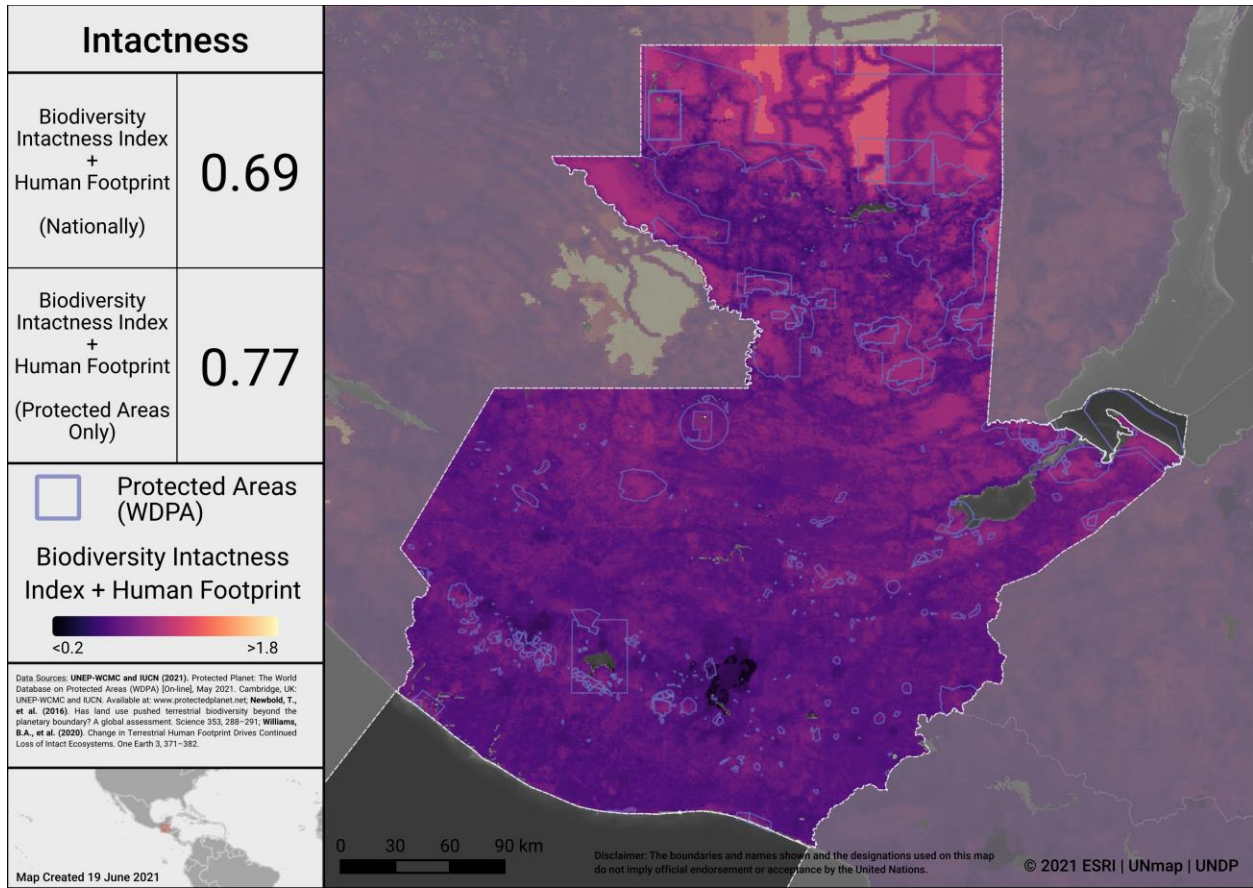
Intactness in Guatemala

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

ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL & MARINE

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).

Guatemala has 12 **terrestrial** ecoregions. Out of these:

- 10 ecoregions have at least some coverage from PAs and OECMs.
- 4 ecoregions have at least 17% protected within the country.
- The average terrestrial coverage of ecoregions is 15.2%.

Guatemala has 2 **marine** ecoregions and 1 **pelagic province**. Out of these:

- 2 marine ecoregions and 0 pelagic provinces have at least some coverage from reported PAs and OECMs.
- 1 marine ecoregion and 0 pelagic provinces have at least 10% protected within Guatemala's exclusive economic zone (EEZ).
- The average protected area coverage of marine ecoregions is 30.6% and the average protected area coverage of Pelagic Provinces is 0.0%.

A full list of terrestrial ecoregions in Guatemala is available in Annex I.
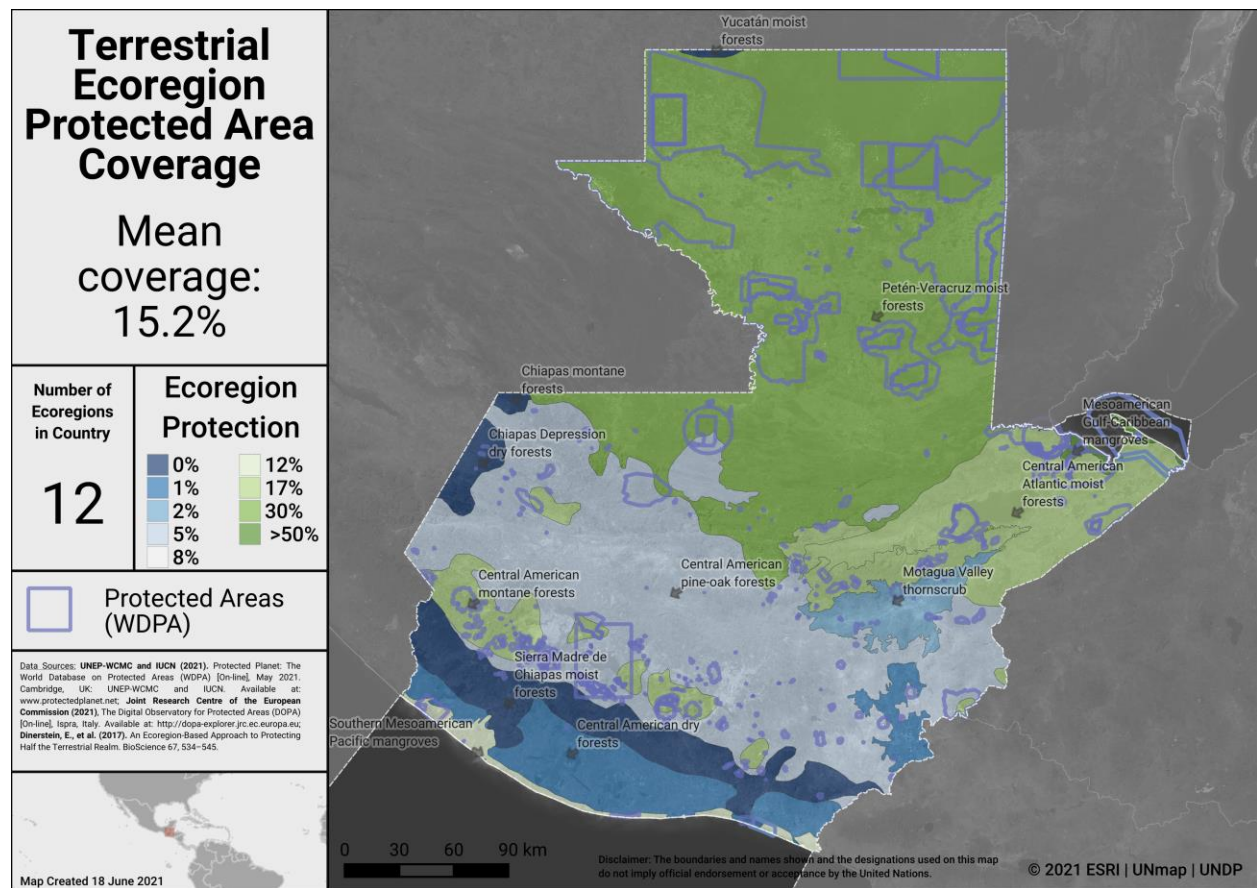
Terrestrial ecoregions in Guatemala
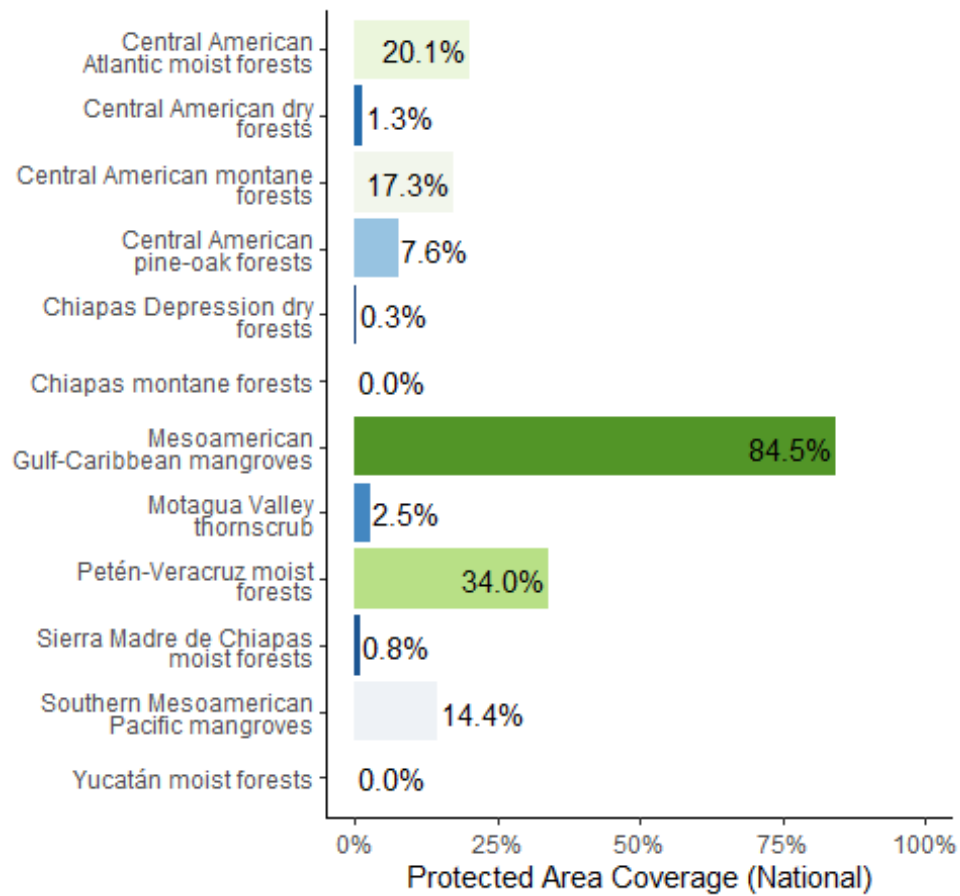
Terrestrial ecoregions of the World (TEOW) in Guatemala
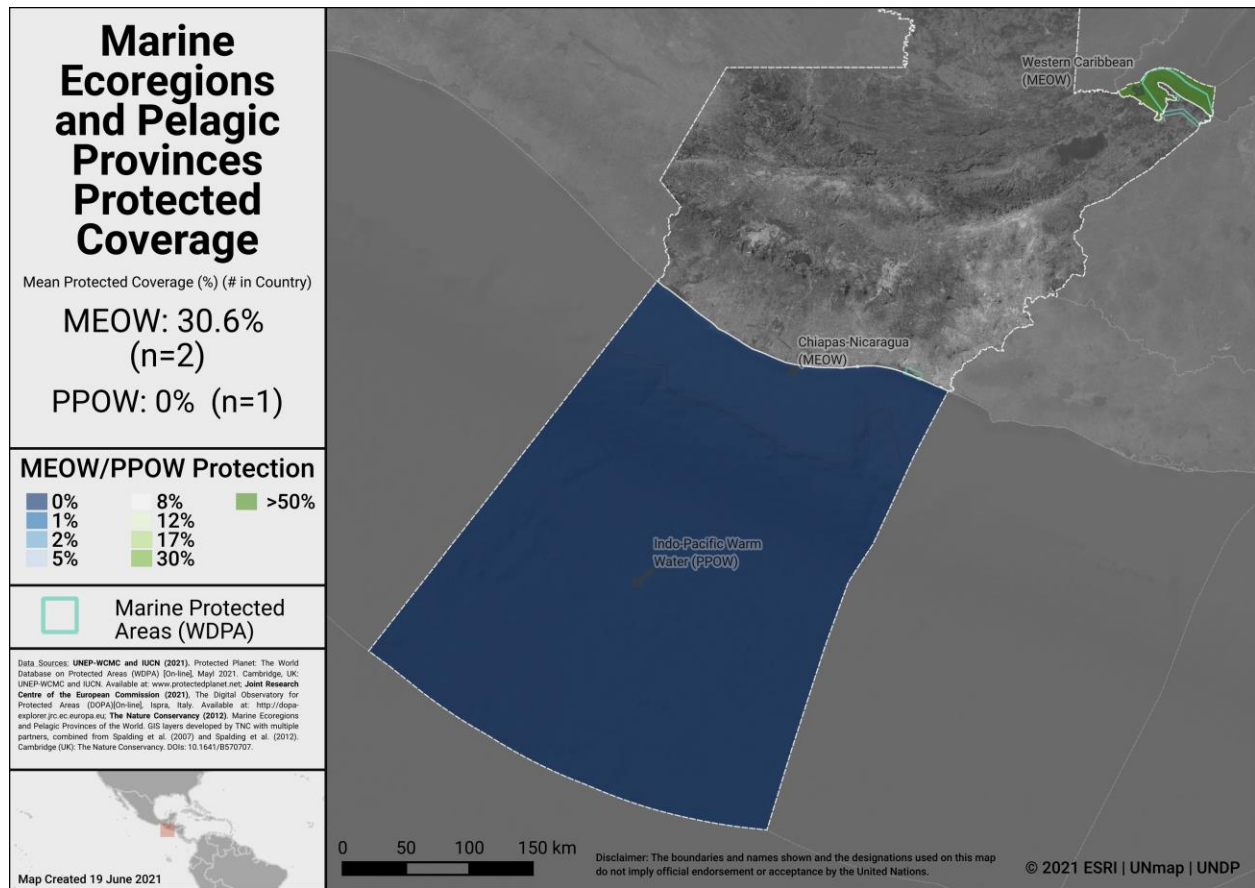
Marine ecoregions and pelagic provinces
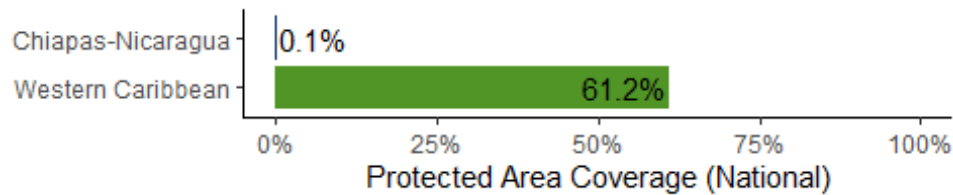
Marine Ecoregions of the World (MEOW) in Guatemala
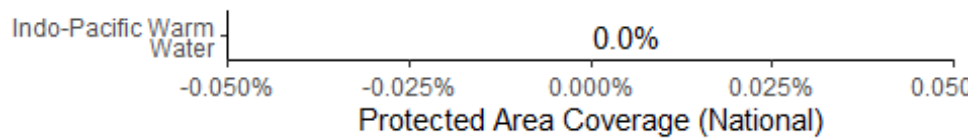
Pelagic Provinces of the World (PPOW) in Guatemala

Opportunities for action

There is opportunity for Guatemala to increase protection in terrestrial and marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs. Ecoregions which currently have no coverage by PAs or OECMs are key areas for action.

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.

Guatemala has **26** Key Biodiversity Areas (KBAs).

- Mean percent coverage of all KBAs by PAs and OECMs in Guatemala is **30.7%**.
- **3** KBAs have full (>98%) coverage by PAs and OECMs.
- **16** KBAs have partial coverage by PAs and OECMs.
- **7** KBAs have no (<2%) coverage by PAs and OECMs.

Ecologically or Biologically Significant Marine Areas (EBSAs)

Other important areas for biodiversity may also include Ecologically or Biologically Significant Marine Areas (EBSAs), which were identified following the scientific criteria adopted at COP-9 (Decision IX/20; see more at: https://www.cbd.int/ebsa/). Sites that meet the EBSA criteria may require enhanced conservation and management measures; this could be achieved through means including MPAs, OECMs, marine spatial planning, and impact assessment.

There are 2 EBSAs with some portion of their extent within Guatemala's EEZ, both of which have at least some no coverage from PAs or OECMs.
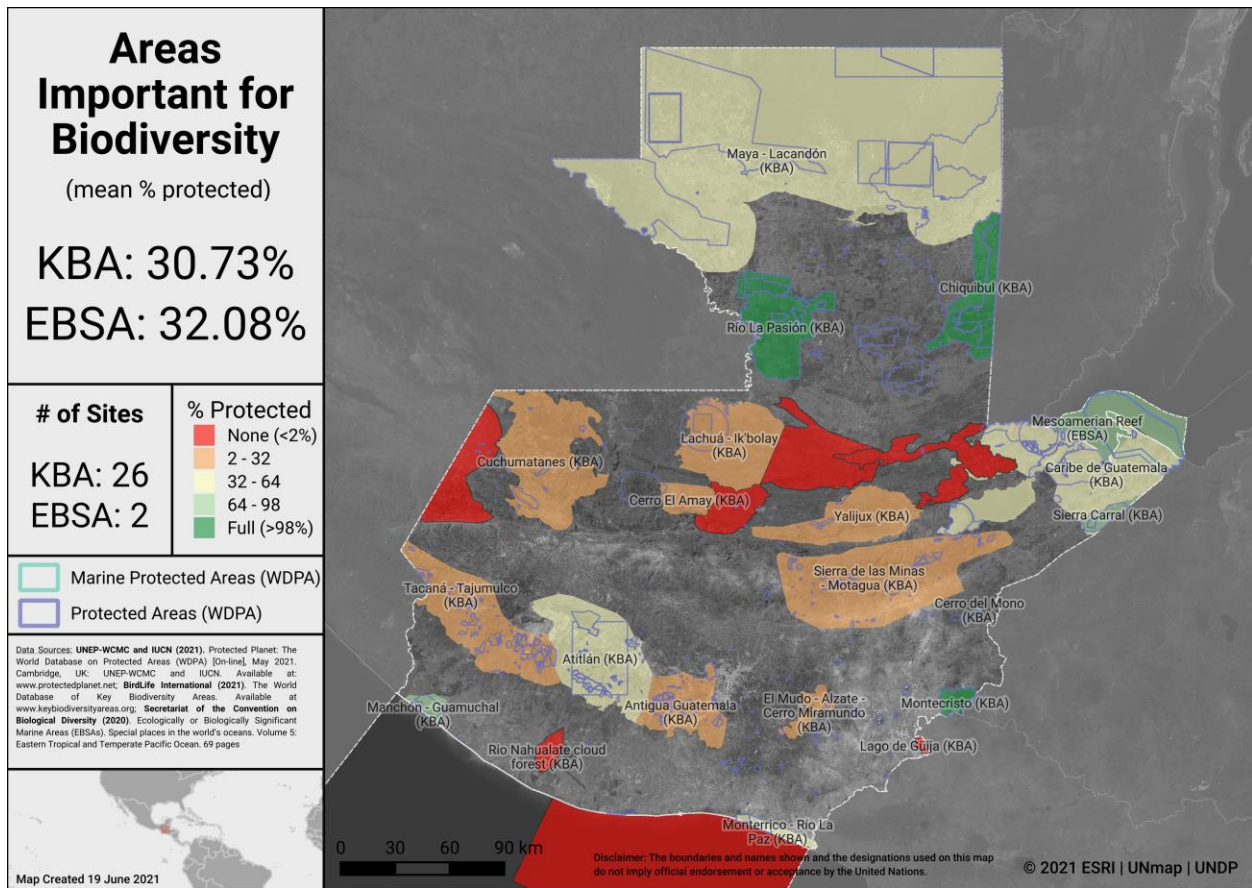
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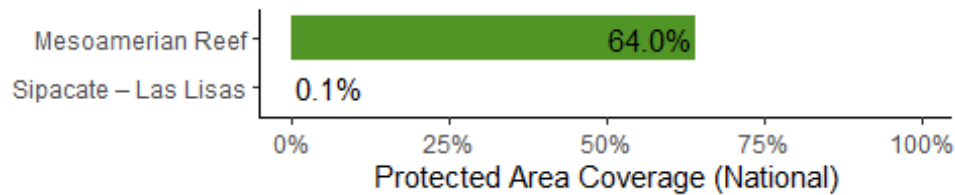
Ecologically or Biologically Significant Marine Areas (EBSAs) in Guatemala
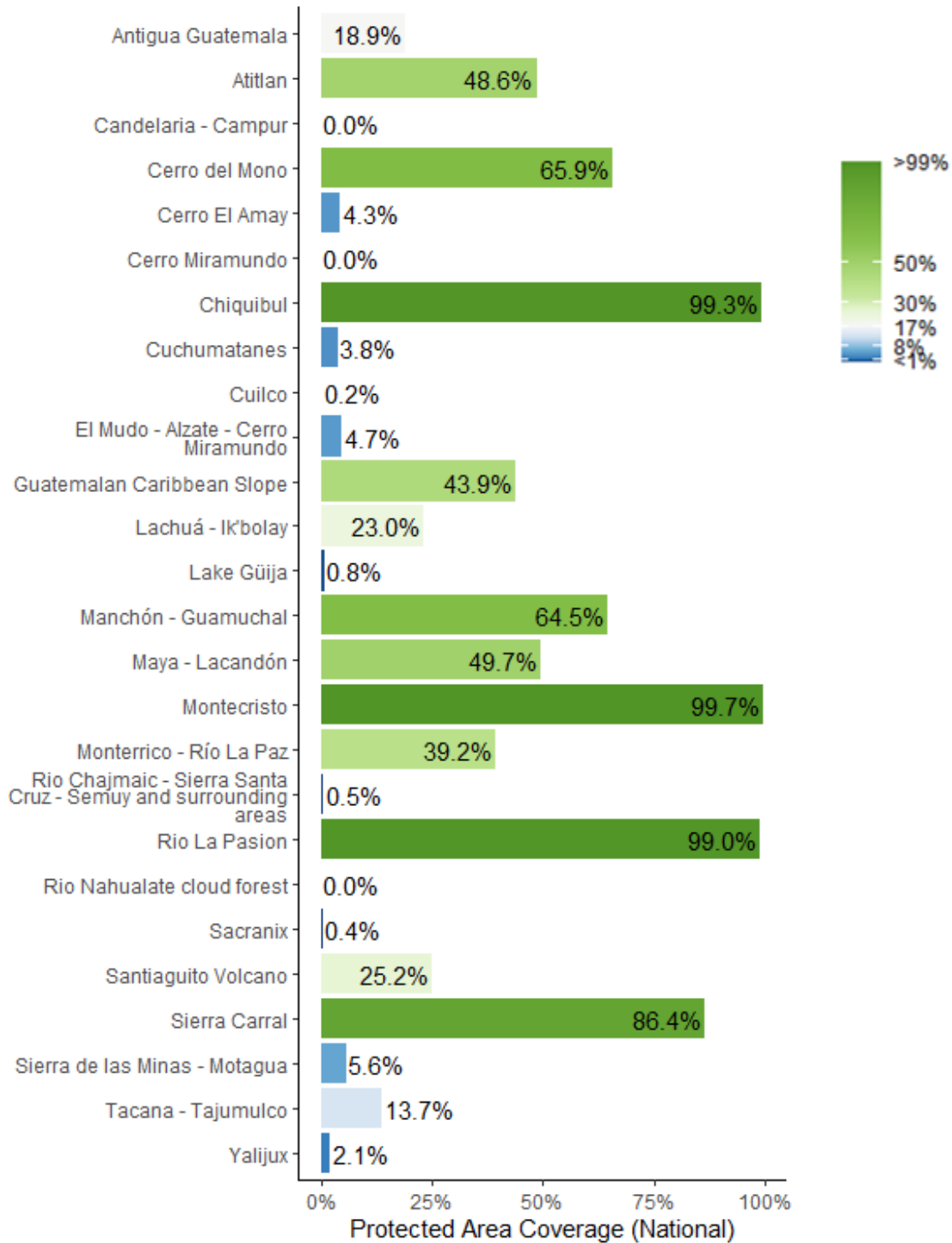
Key Biodiversity Area Coverage (KBA) in Guatemala

Opportunities for action

There is opportunity for Guatemala 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). Data is also presented from global maps of marine sedimentary carbon stocks, standardized to a 1-meter depth (see Sala et al., 2021, and Atwood et al., 2020).

The map below presents the total carbon stocks in Guatemala and the percent of carbon in protected areas. The total carbon stocks is 410.2 Tg C from aboveground biomass (AGB), with 38.5% in protected areas; 115.8 Tg C from below ground biomass (BGB), with 34.8% in protected areas; 1,046.0 Tg C from soil organic carbon (SOC), with 31.3% in protected areas; and 1,200.3 Tg C from marine sediment carbon, with 1.3% in protected areas.
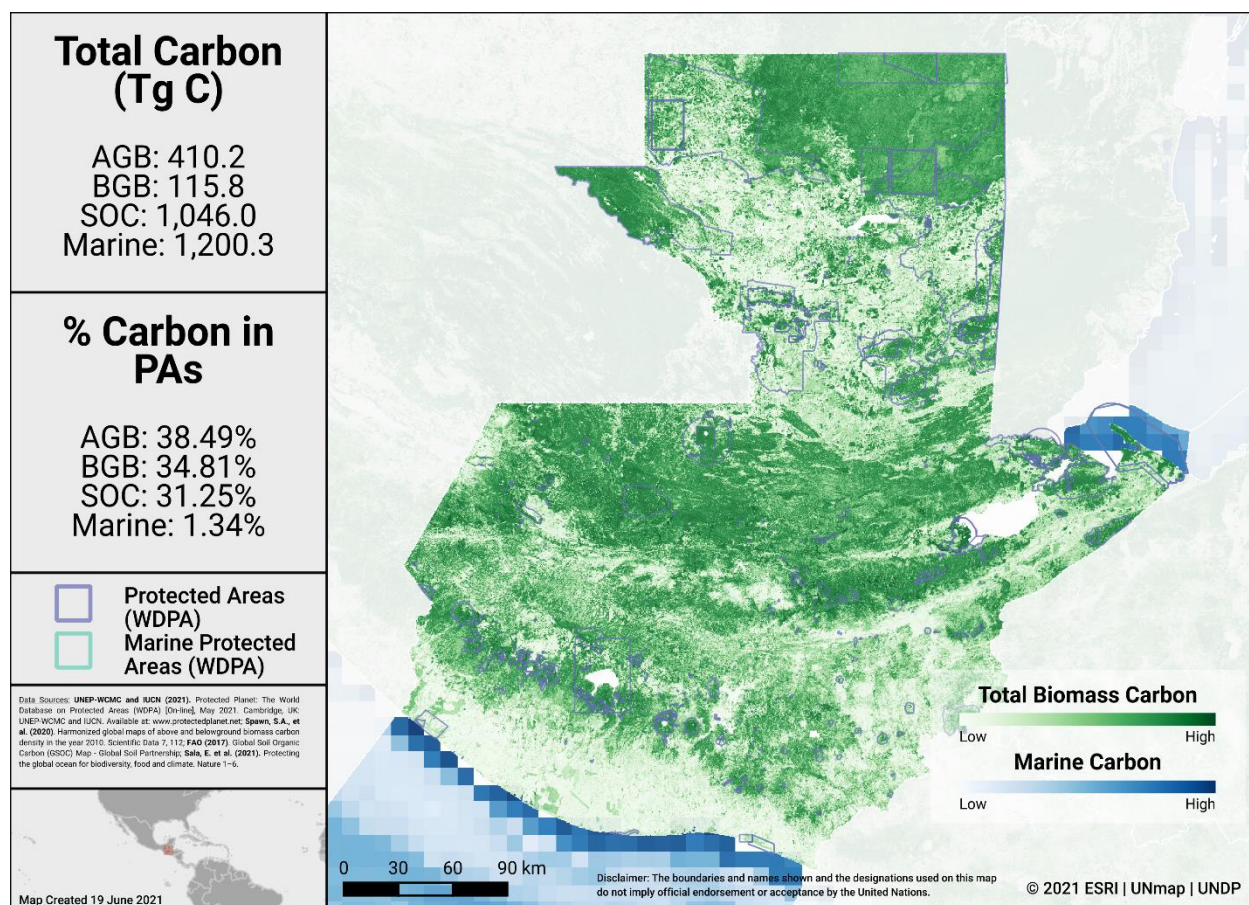
Carbon Stocks in Guatemala

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 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 Guatemala may similarly depend on protected forest 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 Guatemala. Intact catchments can support more consistent water supply and improved water quality.

Ciudad de Guatemala	
Area (km²) (# Upstream Countries)	3,239.6 (n=1)
% of Catchment Protected	6.3%
Area of Catchment Forested (km²)(%)	2,317.8 (71.5%)
Forest Loss (2000-2020) (km²)(%)	209.9 (9.1%)

Protected Areas (WDPA) Catchment

Canopy Cover   Year of Loss   Gain

10% 100%   2000 2010 2020

Data Sources: **UNEP-WCMC and IUCN (2021).** Protected Planet: The World Database on Protected Areas (WDPA) [On-line], May 2021. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net; **Hansen, M.C., et al. (2013).** High-Resolution Global Maps of 21st-Century Forest Cover Change. Science 342, 850–853; **McDonald, R.I. and D. Shemie. (2014).** Urban Water Blueprint: Mapping conservation solutions to the global water challenge. 2014, The Nature Conservancy: Washington, D.C.

Map Created 17 June 2021

0   9   18   27 km

Disclaimer: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

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Water catchment in Ciudad de Guatemala

Opportunities for action

For carbon, there is opportunity for Guatemala to increase PA and OECM coverage in both marine and 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, though some recent developments include proposed guidance for the treatment of connectivity in the planning and management of MPAs (see Lausche et al., 2021).

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 Guatemala was 10.6%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Guatemala is 0.52. This represents no significant change since 2010.

Corridor case studies

Below is a list of case studies on corridors and connectivity in Guatemala:

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 designation of connecting PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving 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 Guatemala reported in the WDPA have the following governance types:

- 42.0% are governed by **governments**
    - 17.3% by federal or national ministry or agency
    - 24.1% by sub-national ministry or agency
    - 0.6% by government-delegated management
- 12.2% are under **shared** governance
    - 2.0 % by collaborative governance
    - 10.2% by joint governance
    - 0.0% by transboundary governance
- 42.9% are under **private** governance
    - 19.6% by individual landowners
    - 9.7% by non-profit organisations
    - 13.6% by for-profit organisations
- 0.6% are under **IPLC** governance
    - 0.0% by Indigenous Peoples
    - 0.6% by local communities
- 2.3% **do not** report a governance type
    - (All of which are international designations)

OECMs

As of May 2021, there are **0** OECMs in Guatemala reported in the WD-OECM, therefore there is no data available on OECM governance types.

Privately Protected Areas (PPAs)

Data on PPAs for Guatemala (from Gloss et al. (2019), a UNDP study on PPAs):

- PPAs **are** formally defined in PA legislation.
- PPAs **are** directly identified in Guatemala's recent NBSAP.
- PPAs **are** included as part of the current PA network.
- These include: **102** Private Natural Reserves comprising **50,000 ha** formally declared through CONAP; **8** reserves owned and managed by universities (**153,100 ha**); **29** landholdings owned by NGOs (**37,370 ha**); and **4** easements established on **7,233 ha** of land between Private Natural Reserves.

See additional info on PPAs in country profile and presented in Annex II.

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

There is currently no data available on ICCAs for Guatemala (see Kothari et al., 2012 and the ICCA Registry for further details).

Other Indigenous lands

Lands managed and/or controlled by Indigenous Peoples cover an area of 64,877.0 km², of which 53,307.0 km² falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 1,129.0 km² (for details on analysis see Garnett et al., 2018).

For Guatemala, 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: International Union for Conservation of Nature. Map of Indigenous Peoples, protected areas and natural ecosystems of Central America. http://www.burness.com/pressrooms/iucn-map-briefing/ (2015).

Opportunities for action

Explore opportunities for governance types that have lower representation, for Guatemala this could include governance by Indigenous Peoples and/or local communities (IPLC), etc.

There is also opportunity for Guatemala 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. Guatemala has the following Equator Prize winners that showcase examples of local, sustainable community action:

Organization	Year	Project Description
Asociación de Forestería Comunitaria Utz Che'	2020	Utz Che' is a network of over 40 Indigenous and local communities and farmer associations representing about 200,000 people in the entire country, 90% of them Indigenous. Supporting its members in the sustainable management of their resources, mainly highland cloud forests and watersheds, the organization guides advocacy efforts of marginalized communities confronting encroachments on their territories. Incorporating Mayan traditional and cultural knowledge, training and farmer-to-farmer learning exchanges promote the conservation of local agrobiodiversity, use of heirloom species, and sharing of best practices in forestry and agroforestry. The livelihoods of 33,000 families have been improved through the creation of family farms using organic farming techniques. Member communities collectively hold and protect 74,000 hectares of forest. Utz Che' emphasizes democratic inclusion, financial transparency and a strong representation of women in leadership positions.

Photo from the Equator Prize Winner:

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, Guatemala has 352 PAs reported in the WDPA; of these PAs, 30 (8.5%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 10.5% (11,527 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 52.1% of the area of terrestrial PAs have completed evaluations.
- 0.8% (892 km^2) of the marine area of the country is covered by PAs with completed management effectiveness evaluations.
  - 93.5% of the area of marine PAs have completed evaluations.

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

As of May 2021, there are 0 OECMs in Guatemala reported in the WD-OECM and no information available on the management effectiveness of potential OECMs.

Changes in forest cover in protected areas and OECMs

Forested areas in Guatemala cover approximately 58.8% of the country, an area of 64,140.1 km^2. Approximately 26.2% (16,778.8 km^2) of this is within the protected area estate of Guatemala. Over the period 2000-2020 loss of forest cover amounted to over 13,920.4 km^2, or 12.8% of the country (21.7% of forest area), of which 4,049.3 km^2 (29.1% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Guatemala from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss.

Forest Cover	
Total Forested Area (km²)	64,140.1
% of Country Forested	58.8%
% of Forested Areas Protected	26.2%
Forest Loss (2000-2020) (km²)(%)	13,920.4 (21.7%)
Outside PAs (2000-2020) (km²)(%)	9,871.1 (70.9%)
Inside PAs (2000-2021) (km²)(%)	4,049.3 (29.1%)

☐ Protected Areas (WDPA)

Forest Canopy Cover: 10% — 100%

Forest Year of Loss: 2000 — 2010 — 2020

Data Sources: **UNEP-WCMC and IUCN (2021)**. Protected Planet: The World Database on Protected Areas (WDPA) [On-line], May 2021. Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net; **Hansen, M.C., et al. (2013)**. High-Resolution Global Maps of 21st-Century Forest Cover Change. Science 342, 850–853; **Dubois, G., et al (2018)**: Digital Observatory For Protected Areas. European Commission, Joint Research Centre (JRC): http://data.europa.eu/89h/jrc-dopa-maps-and-datasets.

Map Created 19 June 2021

0 30 60 90 km

Disclaimer: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

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Forest Cover and Forest Loss in Guatemala
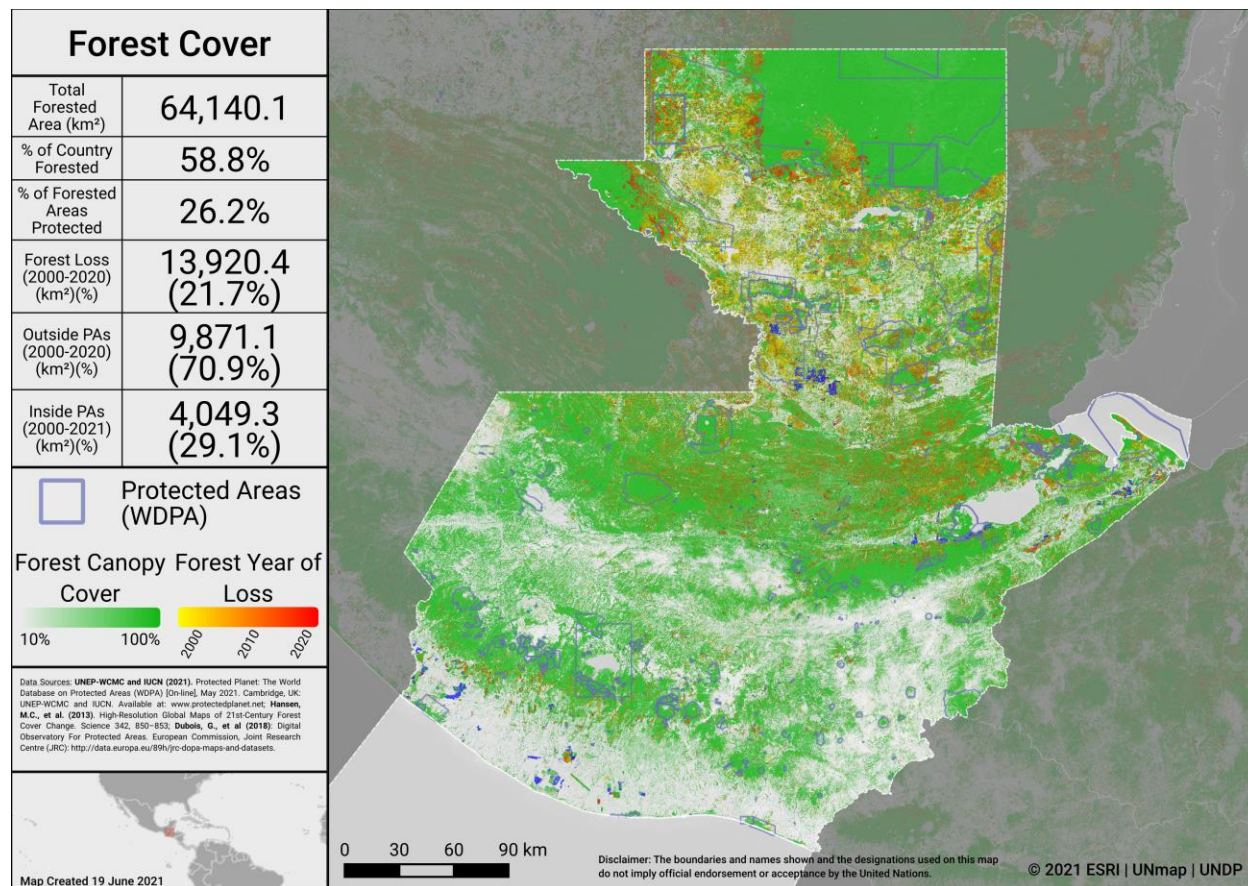
Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs 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. For more information, see the workshop report at: https://www.cbd.int/meetings/

The following actions were identified during the workshops:

Terrestrial coverage: add 20,000 ha to SIGAP (Guatemala system of PAs) [*See GEF project #4716*].

Marine coverage: Increase the area of APs marine coastal enlargement 3 and the creation of 2 new areas for the Pacific (one of which is a EBSA which is related to the important areas for ecosystem services), which would significantly increase the area in coastal marine Pacific coast of 7,042.44 to 164,297.40 hectares ecosystems. [*See GEF project #4716*].

Ecological representation: Establish a biological corridor of a minimum of 250 ha between the remaining forests ("Sustainable Forest Management and Global Multiple Benefits" project).

Areas Important for biodiversity and ecosystem services:

1) Maintain management condition of AZE sites

2) Same as goal for Quantitative element.

Connectivity: 34,792.22 hectares of biological corridors connected with the systems of agricultural / forest production with protected areas.

Management effectiveness: Implement strategy with the objective of effective management of biodiversity.

Governance and Equity: Demonstrate that conservation of endemic species such as cedar and mahogany have been effectively conserved through community forest concessions in the Maya Biosphere Reserve.

OECMs: fund management and alliance for the implementation of the strategy: sustainably restore 1.2 ha of degraded areas by 2045.

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

Guatemala 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 7. Establish the National System for the Conservation and Sustainable Use of Biological Diversity to ensure sustainability development (Indicators: At least 40% of terrestrial and inland water areas as well as 10% of coastal-marine ecosystems are conserved and/or managed efficiently through SIGAP and other forms of management focused on conservation and sustainable use of biodiversity, including forms of local management and management related to traditional and / or collective ancestral knowledge)

This NBSAP **did** include a quantitative target for **terrestrial** PAs or OECMs.

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **No (but post-2020 target date)**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **21,627 km²** by 2022.

This NBSAP **did** include a quantitative target for **marine** protected areas or OECMs.

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **No (but post-2020 target date)**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **8,340 km²** by 2022.

Actions from the NBSAP will also address other elements of Aichi Biodiversity Target 11:

NBSAP Action number	Action (original language from NBSAP)	Action (English or clarified language)
7.1.2	Diseño del Sistema de manera participativa y representativa a nivel local, regional y nacional [SINADIBIO: Sistema Nacional para la Conservación y Uso Sostenible de la Diversidad Biológica]	Design of the System in a participatory and representative manner at the local, regional and national levels [SINADIBIO: National System for the Conservation and Sustainable Use of Biological Diversity]
7.1.4	Defi nición participativa de los mecanismos de conservación que complementen al actual SIGAP (Sistema Guatemalteco de Áreas Protegidas)	Participatory definition of conservation mechanisms that complement the current SIGAP (Guatemalan System of Protected Areas)

NBSAP Action number	Action (original language from NBSAP)	Action (English or clarified language)
7.2.2	Redefinición de las prioridades de conservación de la diversidad biológica y sus servicios ecosistémicos.	Redefinition of priorities for the conservation of biological diversity and its ecosystem services.
7.2.3	Fortalecimiento y actualización de los mecanismos de conservación de la diversidad biológica y sus servicios ecosistémicos existentes.	Strengthening and updating of the mechanisms for the conservation of biological diversity and its existing ecosystem services.
7.2.4	Desarrollo de mecanismos participativos de conservación de la diversidad biológica y sus servicios ecosistémicos a nivel local, regional y nacional.	Development of participatory mechanisms for the conservation of biological diversity and its ecosystem services at the local, regional and national levels
7.2.5	Desarrollo del plan de monitoreo del estado de la diversidad biológica a nivel local, regional y nacional.	Development of the monitoring plan for the state of biological diversity at the local, regional and national levels
10.1.10	Desarrollo e implementación de estrategias de conservación in situ y ex situ para elementos de la diversidad biológica identificados como amenazados y en riesgo de extinción.	Development and Implementation of in situ and ex situ conservation strategies for biodiversity elements identified as threatened and endangered

APPROVED GEF-5, GEF-6, & GCF 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 (km²)	Type of new protected area	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4479	No	N/A	N/A	All except Ecologically representative and Areas important for biodiversity
4618	No	N/A	N/A	Ecosystem services; Effectively managed; Equitably managed; Integration
4716	Yes	2,540	Marine	All except Ecosystem services and Connectivity
4716	Yes	226	Terrestrial	All except Ecosystem services and Connectivity
9059	No	N/A	N/A	All except Ecologically representative

Based on spatial data available for GEF project 4716, benefits will arise for several elements of Target 11:

Coverage of Terrestrial and Marine Ecoregions:

- 3 Terrestrial Ecoregions will have improved coverage. These Ecoregions are: Central American dry forests; Sierra Madre de Chiapas moist forests; Southern Mesoamerican Pacific mangroves.
    - The average increase in coverage of Terrestrial Ecoregions will be 0.75%.
- 1 Marine Ecoregion (Chiapas-Nicaragua) will have improved coverage.
    - The increase in coverage will be 7.78%.

Coverage of KBAs:

- Coverage will improve for 2 KBAs.

Ecosystem services:

- 0.06 % increase in the PA coverage of aboveground biomass.
- 0 % increase in the PA coverage of important aboveground biomass areas.
- 0.19 % increase in the PA coverage of soil organic carbon (SOC).
- 0.22 % increase in the PA coverage of areas important for SOC.

Approved Green Climate Fund (GCF) Protected Area-related biodiversity projects

The Green Climate Fund's investments listed as approved projects as of May 2021 were considered. The GCF supports paradigm shifts in both climate change mitigation and adaptation that may impact quality of PAs or contribute to better integration within the wider land- and seascapes around PAs. Only projects with result areas for either or both *Forest and Land Use and Ecosystems and Ecosystem Services result areas* were included.

GCF ID	Project theme	Result area	Target 11 element
FP087	Adaptation	Ecosystems and ecosystem services	Integration

UN OCEAN CONFERENCE VOLUNTARY COMMITMENTS

Voluntary commitments for the UN Ocean Conference are initiatives voluntarily undertaken by governments, the UN system, non-governmental organizations, among other actors—individually or in partnership—that aim to contribute to the implementation of SDG 14 (here we focus in particular on SDG 14.5). The registry of commitments was opened in February 2017, in the lead up to the first UN Ocean Conference (5 to 9 June 2017).

Ocean Actions improving MPA or OECM coverage:

#OceanAction20460: Creación de 5 reas Protegidas Costero Marinas en el Pacífico de Guatemala, by Consejo Nacional de Áreas Protegidas de Guatemala (Government).

- Area to be added: **No area given** (but see GEF project #4716)
- Progress report: No progress report submitted (as of March 2021).
- Further details available at:
  https://oceanconference.un.org/commitments/?id=20460.

#OceanAction16178: Protecting 1 million sq kms through the $15 million WCS Marine Protected Area Fund, by Wildlife Conservation Society (Non-governmental organization (NGO)).

- Area to be added: **No area given**.
  - See details in the country profile for the WCS MPA project:
    https://mpafund.wcs.org/.
- Progress report: Yes (2019), status=On Track.
- Further details available at:
  https://oceanconference.un.org/commitments/?id=16178.

OTHER ACTIONS/COMMITMENTS

Leaders' Pledge for Nature

Guatemala **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.

Guatemala's statement at the 2020 UN Biodiversity Summit mentions PAs, OECMs or corridors:

We are therefore strengthening incentives on forest and mangrove conservation, as well as optimizing the effective management protection and monitoring of the Guatemalan national system of protected areas which represents 31% of our country.

High Ambition Coalition for Nature and People

Guatemala **has** joined the High Ambition Coalition for Nature and People.

The High Ambition Coalition for Nature and People (HAC) is an intergovernmental group, co-chaired by France and Costa Rica [currently including 65 countries and the European Commission]. Its objective is to support the adoption of a target aiming to protect 30% of the planet's land and 30% of its oceans by 2030 (30x30 target), within the future global framework of the Convention on Biological Diversity (CBD) for the protection of biodiversity, which is to be adopted at the next COP in China this autumn.

Global Ocean Alliance

Guatemala **has** joined the Global Ocean Alliance: 30by30 initiative.

The Global Ocean Alliance 30by30 is a UK led initiative [currently containing 53 countries as signatories]. Its aim is to protect at least 30% of the global ocean as Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) by 2030.

Commitments for PAs and OECMs from Other National Policies

Policy document	Ecosystem	Policy text
Nationally Determined Contribution	Forest ecosystems	Avoided forest conversion: 24.78 Mt CO2e/year
Nationally Determined Contribution	Forest ecosystems	Avoided timber harvesting: 0.87 Mt CO2e/year
Nationally Determined Contribution	Coastal ecosystems	Avoided impacts on mangroves: 1.26 CO2e/year
Nationally Determined Contribution	Wetland ecosystems	Avoided impacts on mangroves: 1.26 CO2e/year
Nationally Determined Contribution	Forest ecosystems	Avoided deforestation as a strategy for regulating the hydrological cycle to prevent flooding in lowlands
National Development Plan K'atun	Forest ecosystems	Strengthen incentive schemes for the conservation of natural forests for greenhouse gas mitigation purposes.
National Development Plan K'atun	Forest ecosystems	Increase the extension and number of protected areas, prioritizing Sigap areas with conservation gaps.
National Development Plan K'atun	Forest ecosystems	Strengthen control and control and surveillance in protected areas
National Development Plan K'atun	Forest ecosystems	Conservation, protection, restoration, and sustainable management of catchment and hydrological regulation zones.
National Development Plan K'atun	Forest ecosystems	Develop control systems in watershed protection areas in order to promote sustainable productive systems.
National Development Plan K'atun	Forest ecosystems	Implement soil and water conservation practices in priority sites to improve infiltration and reduce runoff and soil erosion
National Development Plan K'atun	Wetland ecosystems	Conserve degraded ecosystems in coastal marine ecosystems, Ramsar sites, lake and river systems.
National Development Plan K'atun	Coastal ecosystems	Conserve degraded ecosystems in coastal marine ecosystems, Ramsar sites, lake and river systems.
National Development Plan K'atun	Coastal ecosystems	Ensure conservation and protection of mangrove areas in coastal marine zones.

Policy document	Ecosystem	Policy text
National Development Plan K'atun	Grasslands & Agricultural systems	Support for agrobiodiversity conservation systems.
National Development Plan K'atun	Grasslands & Agricultural systems	Carry out soil and water conservation practices on land used for grain production that shows signs of deterioration.
National Biodiversity Strategy Action Plan	Forest ecosystems	Reduced deforestation and forest degradation, inside and outside protected areas.
National Biodiversity Strategy Action Plan	Forest ecosystems	At least 40 percent of terrestrial and inland water areas are conserved and/or effectively managed through SIGAP and other forms of management focused on the conservation and sustainable use of biological diversity
National Action Plan for Combating Climate Change	Forest ecosystems	At least 34 percent of the national territory is covered by forests
National Action Plan for Combating Climate Change	Forest ecosystems	Strengthen and implement the Interinstitutional Strategy to Combat Illegal Logging Increase the extension and number of protected areas, prioritizing SIGAP areas with conservation gaps.
National Action Plan for Combating Climate Change	Forest ecosystems	Increase the coverage of strategic forest ecosystems vulnerable to climate change.
National Action Plan for Combating Climate Change	Forest ecosystems	Implement biological corridors for the establishment of escape areas that include conservation, restoration and agro-biodiversity management.
National Action Plan for Combating Climate Change	Forest ecosystems	Increase investment (public and private) by 50 percent to improve the effectiveness of management and conservation of protected areas.
National Biodiversity Strategy Action Plan	Wetland ecosystems	Ensuring the provision of ecosystem services regulation, guaranteeing the water supply for human consumption consumption and reduces vulnerability to vulnerability to floods, landslides, desertification landslides, desertification and erosion

Policy document	Ecosystem	Policy text
National Biodiversity Strategy Action Plan	Wetland ecosystems	At least 10% of coastal-marine coastal-marine ecosystems are conserved and/or effectively managed through through SIGAP and other forms of forms of management focused conservation and sustainable sustainable use of biological biodiversity PANCC
National Biodiversity Strategy Action Plan	Wetland ecosystems	Harmonize, design and/or implement strategic strategic conservation plans to reduce vulnerability and vulnerability and adaptation to climate change of the ecosystems of the MCZ considering the watershed approach watershed approach NWP
National Biodiversity Strategy Action Plan	Wetland ecosystems	The State, through the Guatemalan System of Protected Areas (SIGAP), aims to promote the to promote conservation, the application of conservation, the application of good practices, compatible land use incompatible land use in wetlands and wetlands and watershed areas, taking into account the effects that any activity may have on the quality on water quality and quantity quantity of water, considering the benefits obtained from them.
National Action Plan for Combating Climate Change	Wetland ecosystems	Protect, sustainably use and restore and restore wetlands (both inland and wetlands (both inland and both inland and coastal) of Guatemala, including their biodiversity, for the benefit of the current and future current and future population, through participation and cooperation and cooperation among all inhabitants and the timely economic investment of the institutions of the State.
National Biodiversity Strategy Action Plan	Coastal ecosystems	By 2022 at least 10% of coastal-marine ecosystems are under some mechanism of sustainable use and/or conservation.
National Biodiversity Strategy Action Plan	Coastal ecosystems	Increase the area of the Marine-coastal Zone under conservation mechanisms to 5,000 hectares.
National Action Plan for Combating Climate Change	Coastal ecosystems	Develop a program to rescue and value ancestral knowledge in order to implement actions to adapt to climate change.

Policy document	Ecosystem	Policy text
National Action Plan for Combating Climate Change	Coastal ecosystems	Develop actions to prioritize ecosystems already identified for conservation in the face of climate change.
National Action Plan for Combating Climate Change	Coastal ecosystems	Create and strengthen control mechanisms for the application and updating of conservation norms and regulations, protection and restoration of ecosystems in the MCZ
National Action Plan for Combating Climate Change	Coastal ecosystems	Implement climate change adaptive technology (living barriers, green and gray infrastructure) to reduce environmental damage and losses.
National Action Plan for Combating Climate Change	Coastal ecosystems	Maintain 18,840 hectares of mangrove forest cover in the MCZ by 2026.
National Action Plan for Combating Climate Change	Coastal ecosystems	Increase the reef area of the MCZ under NWP protection.
National Wetlands Policy	Coastal ecosystems	Protect, sustainably use and restore Guatemala's wetlands (both inland and coastal), including their biodiversity, for the benefit of the current and future current and future population, through participation and cooperation and cooperation among all inhabitants and the timely economic investment of the institutions of the State.
National Action Plan for Combating Climate Change	Grasslands & Agricultural systems	Implementation of adaptation practices and water and soil conservation.

ANNEX I

FULL LIST OF TERRESTRIAL ECOREGIONS

Ecoregion Name	Area (km²)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km²)	% Protected in Country
Central American Atlantic moist forests	8,442.0	9.4	7.8	1,696.7	20.1
Central American dry forests	6,615.9	9.8	6.1	83.6	1.3
Central American montane forests	5,948.7	44.9	5.5	1,028.4	17.3
Central American pine-oak forests	29,354.4	26.5	26.9	2,222.8	7.6
Chiapas Depression dry forests	898.5	6.4	0.8	2.4	0.3
Chiapas montane forests	189.0	3.3	0.2	0.0	0.0
Mesoamerican Gulf-Caribbean mangroves	378.5	1.4	0.3	319.8	84.5
Motagua Valley thornscrub	2,328.4	100.0	2.1	58.9	2.5
Petén-Veracruz moist forests	47,766.9	32.1	43.9	16,238.1	34.0
Sierra Madre de Chiapas moist forests	5,744.8	51.2	5.3	43.7	0.8
Southern Mesoamerican Pacific mangroves	1,196.1	15.3	1.1	172.6	14.4
Yucatán moist forests	114.3	0.2	0.1	0.0	0.0

ANNEX II

ADDITIONAL DETAILS ON PPAs

- Guatemala features private land tenure, although oftentimes land is held informally, without legal title.

- Article 8 of the Regulation of Protected Areas Law outlines the different classifications of PAs (e.g. National Park, Biological Reserve, Private Natural Reserve, etc.); most of these categories can include private land except National Parks and Biological Reserves (exclusively assigned to state owned land)

- private land set aside for conservation can be managed as reserves held by private individuals, universities, and non-governmental organizations, or can be formed through conservation easements and usufruct

- Many Private Natural Reserves are located in buffer zones adjacent to other PAs

- *Strategic Objective 2* of Guatemala's NBSAP, includes a strategy related to private land conservation; *Goal 9* seeks to "promote community businesses based on the sustainable use of biological diversity and the fair and equal distribution of the biological resources and collective traditional knowledge which permit economic and social development."; *Strategic Objective 1*, calls on strengthening institutions involved in organization of territories, also mentions including the private sector as a key player in implementation.

- As of 2008, there were:

  - 102 Private Natural Reserves comprising 50,000 ha formally declared through CONAP;

  - 8 reserves owned and managed by universities (153,100 ha);

  - 29 landholdings owned by NGOs (37,370 ha);

  - 4 easements established on 7,233 ha of land between Private Natural Reserves

- the WDPA currently lists 151 Private Natural Reserves (under private governance) another 40 Private Natural Reserves have shared governance or are governed by government ministries or agencies.

Case studies/best practices:

• *Reserva Para La Conservación de Anfibios en Sierra Caral – Reserve for the Conservation of Amphibians in Sierra Caral*: formed as a Private Natural Reserve in 2012 by NGO Fundación para el Ecodesarrollo y la Conservación (FUNDAECO), covering 2,299.42 ha; in 2014 it was included into a National Protected Area; through the initial leadership of private

institutions, this area was able to be conserved in the short-term until the national government was in a position to provide greater levels of protection

• *Ni'tun Private Natural Reserve*: Founded in 1993 by owner Lorena Castillo, the reserve combines conservation with ecotourism (~20 ha); it is part of APROBOSQUE, a local organization forming all of the Private Natural Reserves within the municipality of Petén.

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

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