Aichi Biodiversity Target 11 Country Dossier: CAMBODIA

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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

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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.

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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 Cambodia is 72,527.3 km^2 (39.7%) and marine coverage is 691.5 km^2 (1.4%).

- **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:** Cambodia contains 8 terrestrial ecoregions, 1 marine ecoregion, and 0 pelagic provinces: the mean coverage by reported PAs and OECMs is 39.1% (terrestrial), 1.4% (marine), and 0.0% (pelagic); all ecoregions have at least some coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Cambodia to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs.

Areas Important for Biodiversity

- **Status:** Cambodia has 47 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 52.7%, while 7 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Cambodia 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 Cambodia, 67.2% of aboveground biomass carbon, 64.1% of belowground biomass carbon, 48.7% of soil organic carbon, 3.2% of carbon stored in marine sediments is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for Cambodia to increase PA and OECM coverage in marine areas with high carbon stocks, and to focus on effective management for 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 28.5%.

- **Opportunities for action:** there is opportunity 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(s) for reported PAs in Cambodia is: 98.6% under Government (Federal or national ministry or agency).

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

- There is also opportunity for Cambodia 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:** 41.6% of terrestrial PAs and 32.5% 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 not** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for both terrestrial and marine 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 Cambodia. Section I of the dossier presents data on the current status of Cambodia'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 opportunities for action for Cambodia, in relation to each Target 11 element. The analyses present options for improving Cambodia's area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Cambodia'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, Cambodia has **69** protected areas reported in the World Database on Protected Areas (WDPA). 1 UNESCO-MAB Biosphere Reserve is not included in the following statistics (see details on UNWP-WCMC's methods for calculating PA and OECM coverage **here**).

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

Current coverage for Cambodia:

- 39.7% terrestrial (68 protected areas, 72,527.3 km²)

- 1.4% marine (4 protected areas, 691.5 km²)
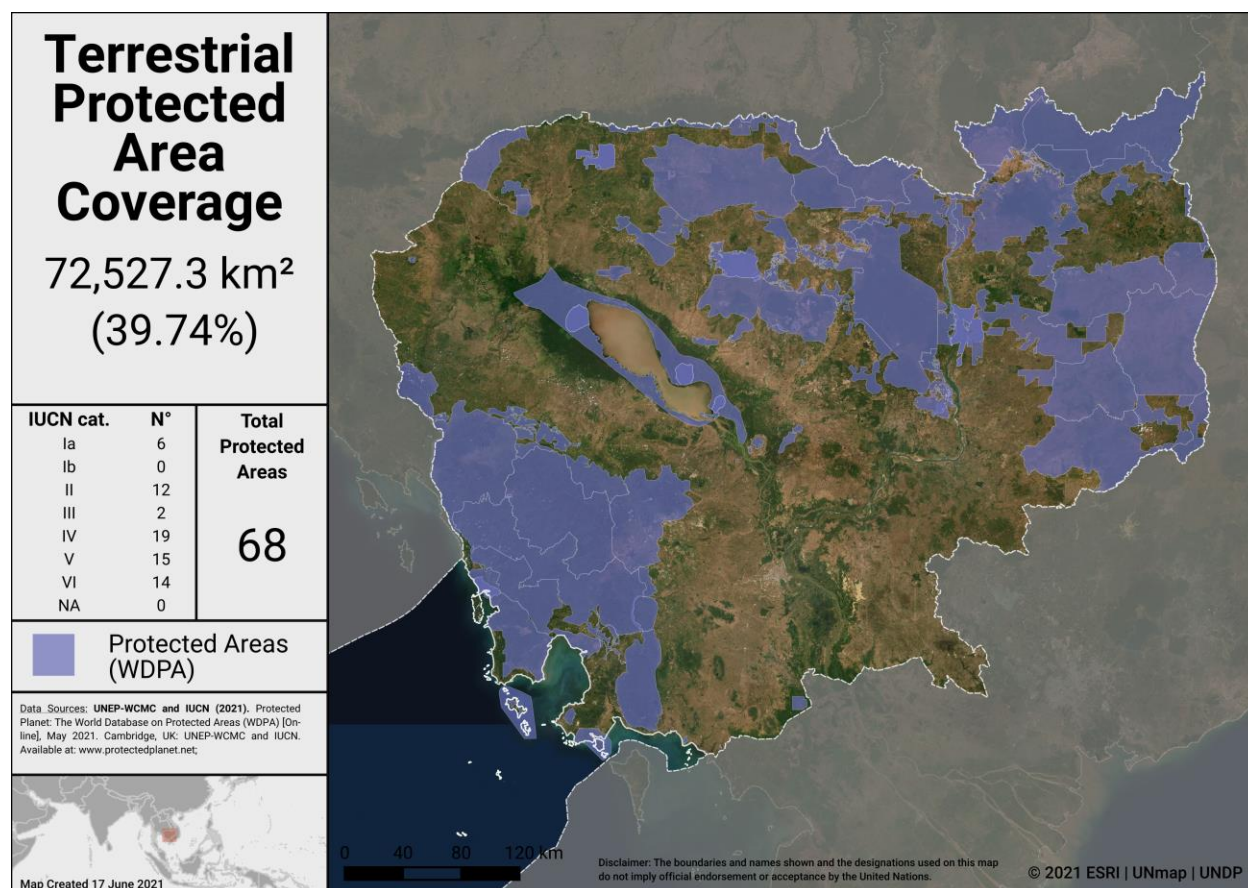
Terrestrial Protected Areas in Cambodia
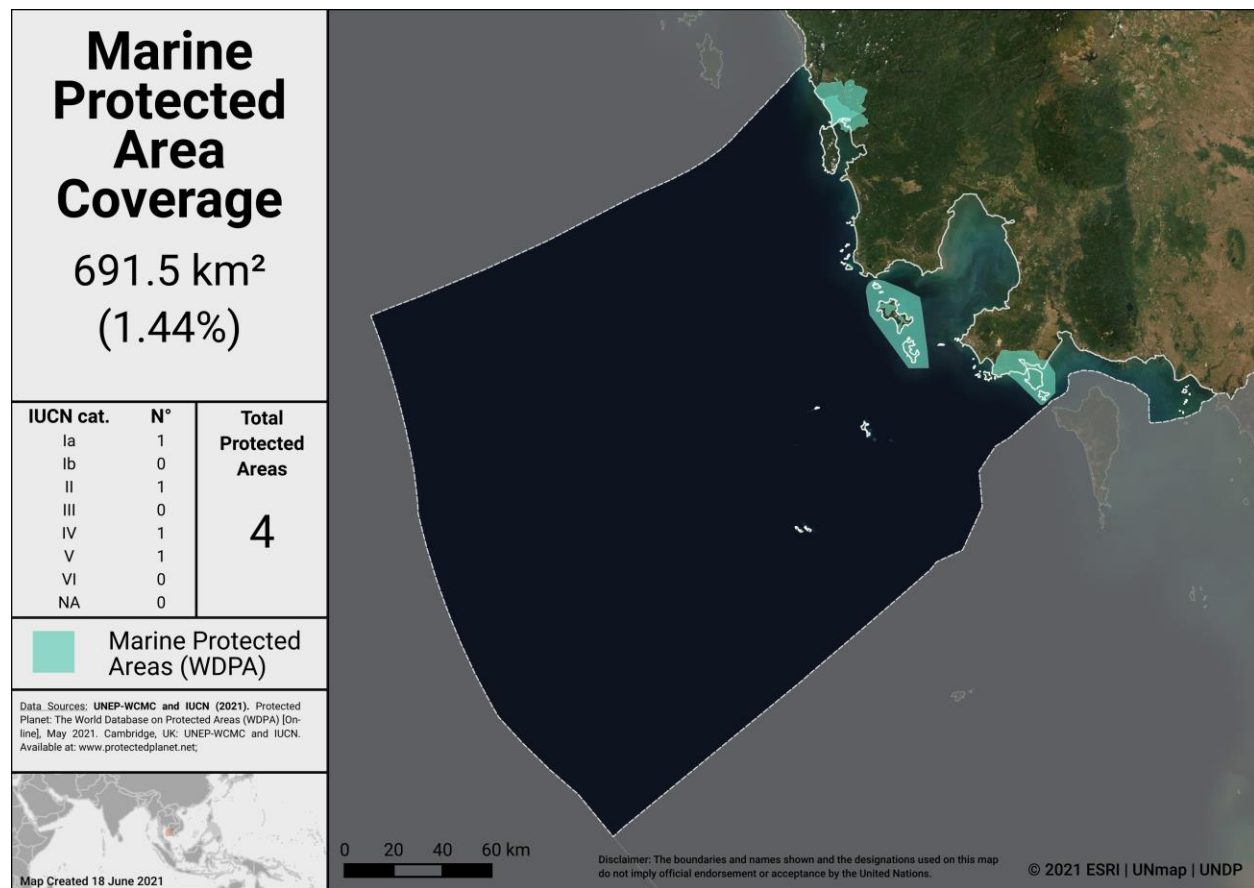
Marine Protected Areas in Cambodia

Potential OECMs

There are currently no potential OECM examples available for Cambodia.

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 Cambodia considers where to add new PAs and OECMs, the map below identifies areas in Cambodia 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.
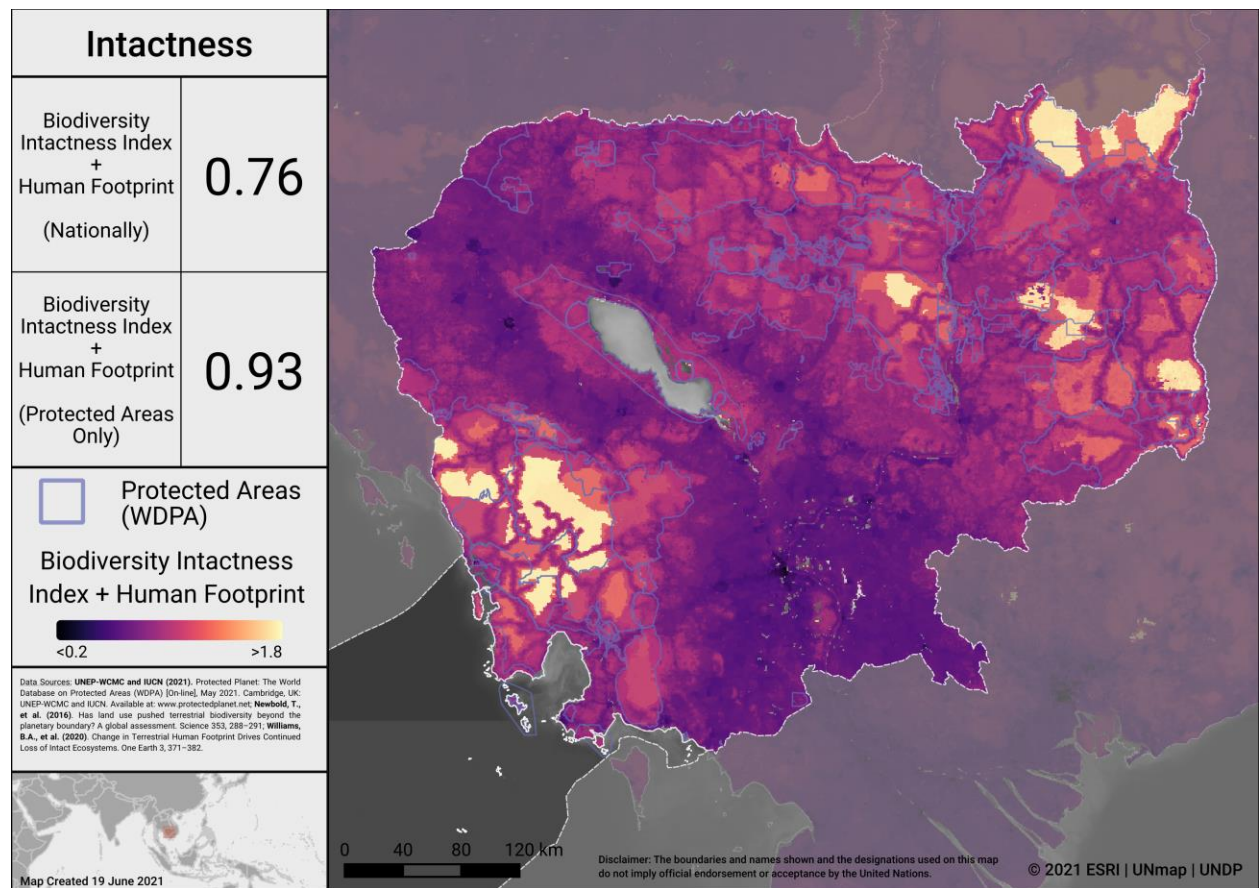
Intactness in Cambodia

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).

Cambodia has 8 **terrestrial** ecoregions. Out of these:

- All 8 ecoregions have at least some coverage from PAs and OECMs.
- 7 ecoregions have at least 17% protected within the country.
- The average terrestrial coverage of ecoregions is 39.1%.

Cambodia has 1 **marine** ecoregion and 0 **pelagic province**. Out of these:

- Coverage from reported PAs and OECMs is 1.4% (marine ecoregion)

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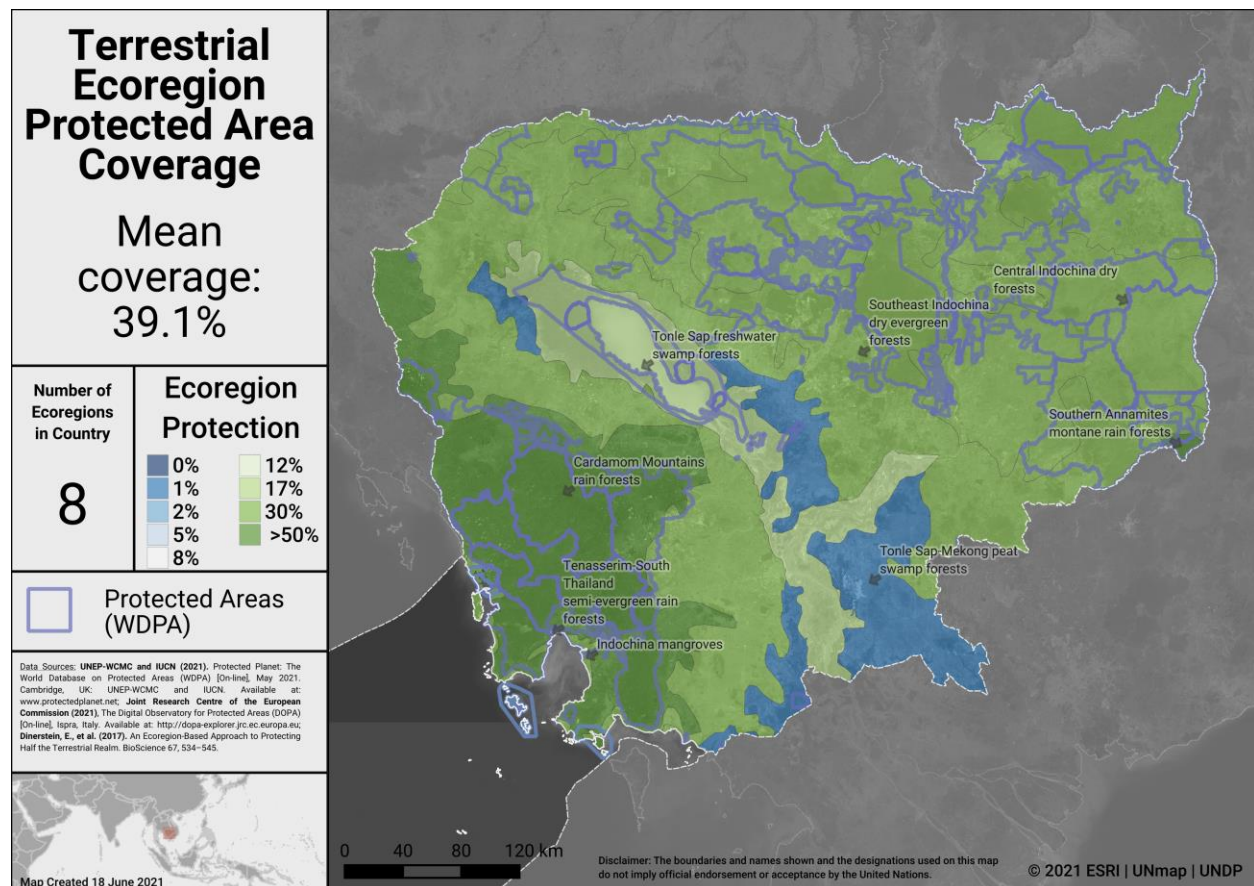
Terrestrial ecoregions in Cambodia
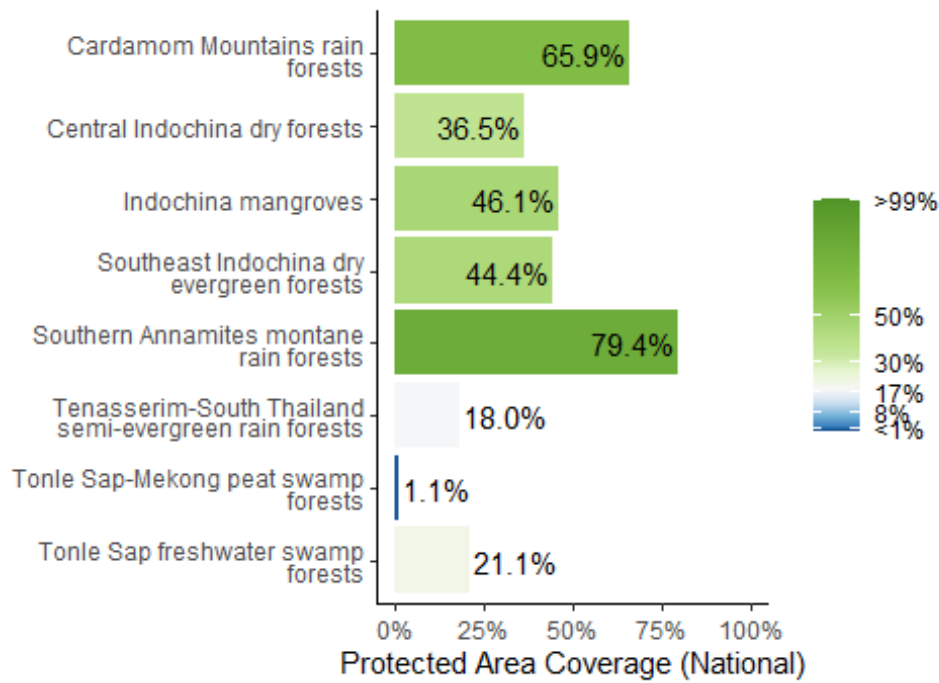
Terrestrial ecoregions of the World (TEOW) in Cambodia
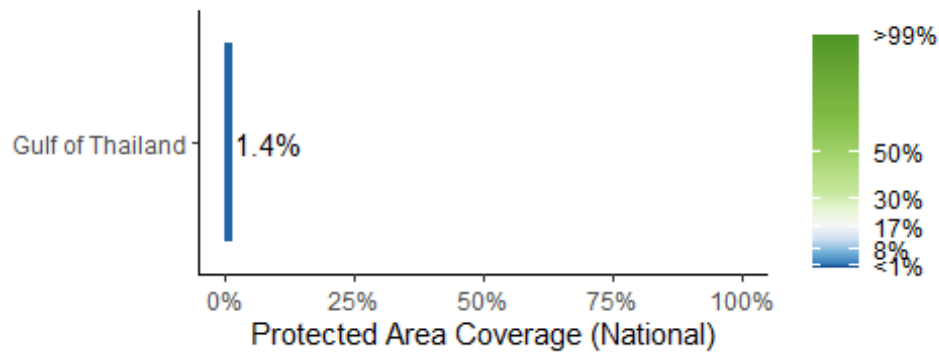
Marine Ecoregions of the World (MEOW) in Cambodia
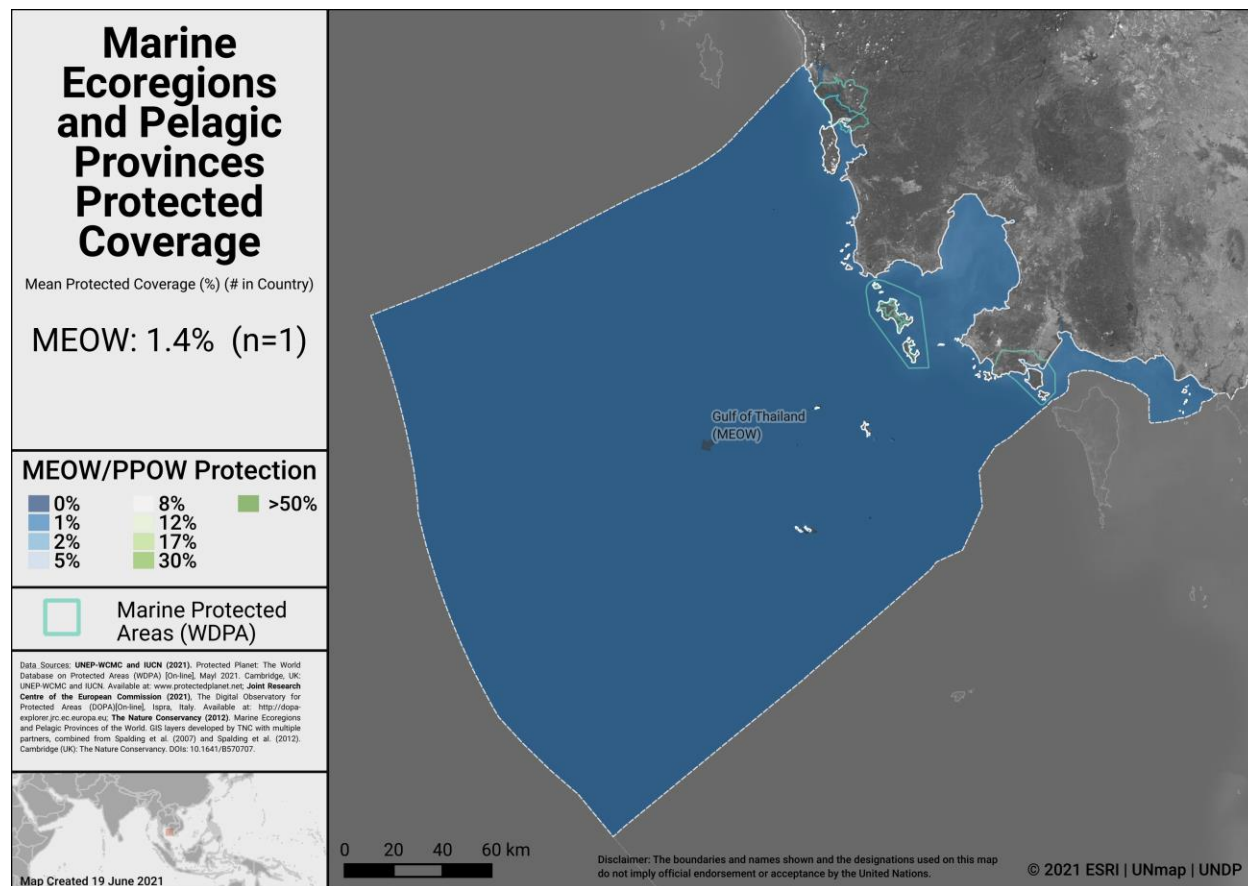
Marine ecoregions and pelagic provinces

Opportunities for action

There is opportunity for Cambodia to increase protection in terrestrial and marine ecoregions that have lower levels of coverage by PAs or OECMs.

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.

Cambodia has **47** Key Biodiversity Areas (KBAs).

- Mean percent coverage of all KBAs by PAs and OECMs in Cambodia is **52.7%**.
- **5** KBAs have full (>98%) coverage by PAs and OECMs.
- **35** 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 is 1 EBSAs with some portion of their extent within Cambodia's EEZ, coverage from PAs and OECMs within Cambodia's EEZ is almost 50%.
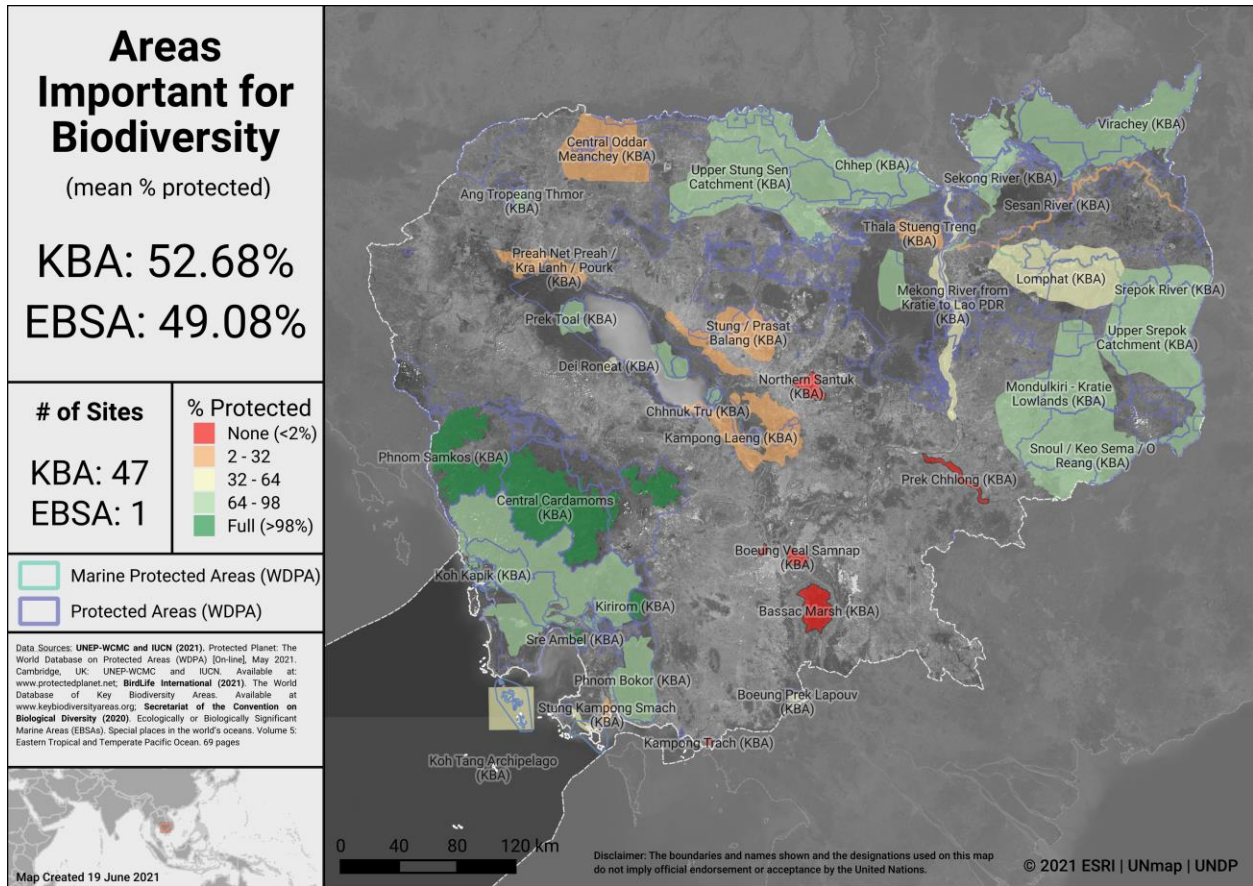
Areas Important for Biodiversity in Cambodia
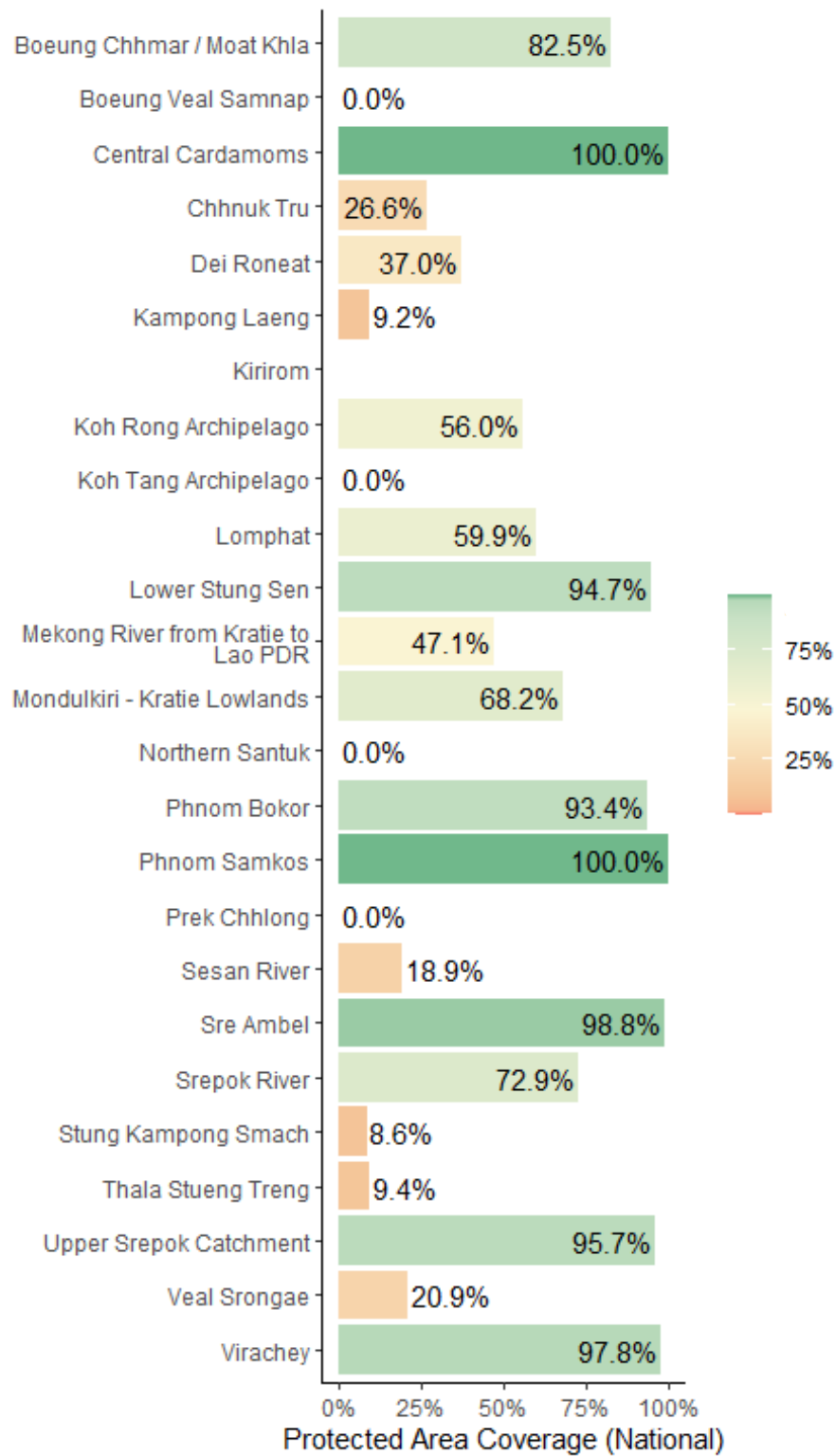
Boeung Chhmar / Moat Khla — 82.5%
Boeung Veal Samnap — 0.0%
Central Cardamoms — 100.0%
Chhnuk Tru — 26.6%
Dei Roneat — 37.0%
Kampong Laeng — 9.2%
Kirirom —
Koh Rong Archipelago — 56.0%
Koh Tang Archipelago — 0.0%
Lomphat — 59.9%
Lower Stung Sen — 94.7%
Mekong River from Kratie to Lao PDR — 47.1%
Mondulkiri - Kratie Lowlands — 68.2%
Northern Santuk — 0.0%
Phnom Bokor — 93.4%
Phnom Samkos — 100.0%
Prek Chhlong — 0.0%
Sesan River — 18.9%
Sre Ambel — 98.8%
Srepok River — 72.9%
Stung Kampong Smach — 8.6%
Thala Stueng Treng — 9.4%
Upper Srepok Catchment — 95.7%
Veal Srongae — 20.9%
Virachey — 97.8%

Protected Area Coverage (National)

Key Biodiversity Area Coverage (KBA) in Cambodia

Key Biodiversity Area Coverage (KBA) in Cambodia

Koh Rong Marine National Park — 49.1%

Protected Area Coverage (National)
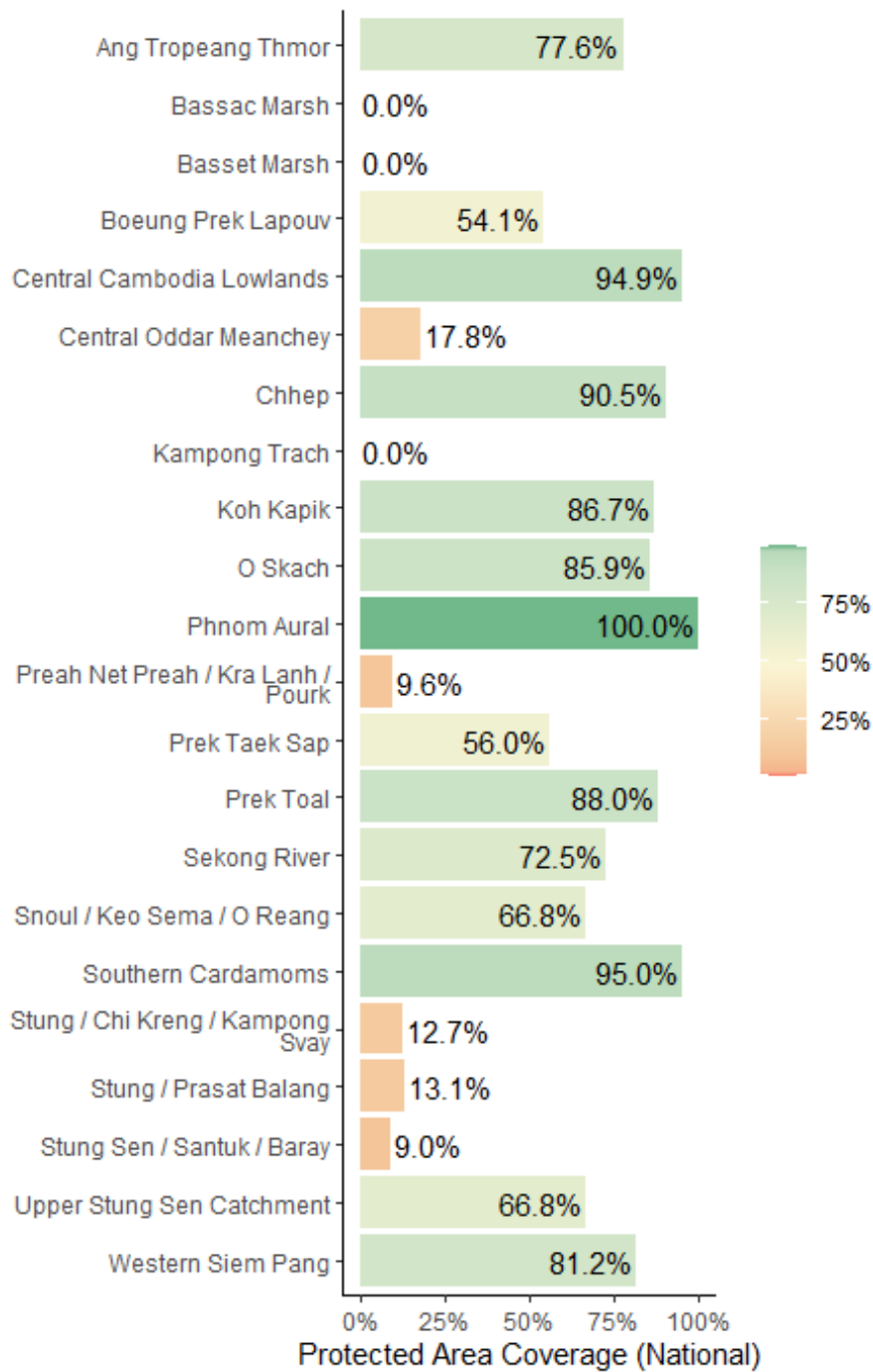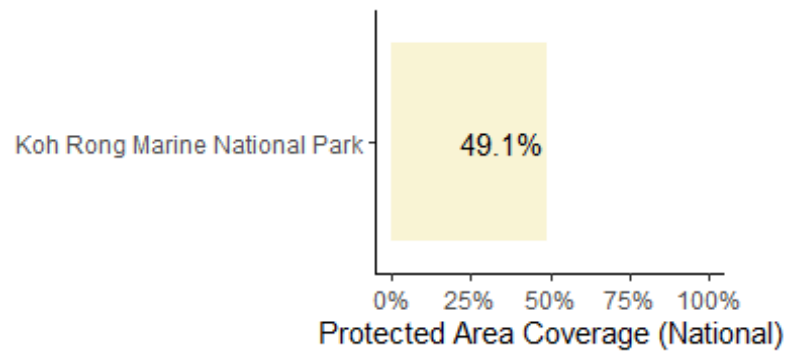
Ecologically or Biologically Significant Marine Areas (EBSAs) in Cambodia

Opportunities for action

There is opportunity for Cambodia 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 Cambodia and the percent of carbon in protected areas. The total carbon stocks is 667.6 Tg C from aboveground biomass (AGB), with 67.2% in protected areas; 185.8 Tg C from below ground biomass (BGB), with 64.1% in protected areas; 880.7 Tg C from soil organic carbon (SOC), with 48.7% in protected areas; and 547.5 Tg C from marine sediment carbon, with 3.2% in protected areas.
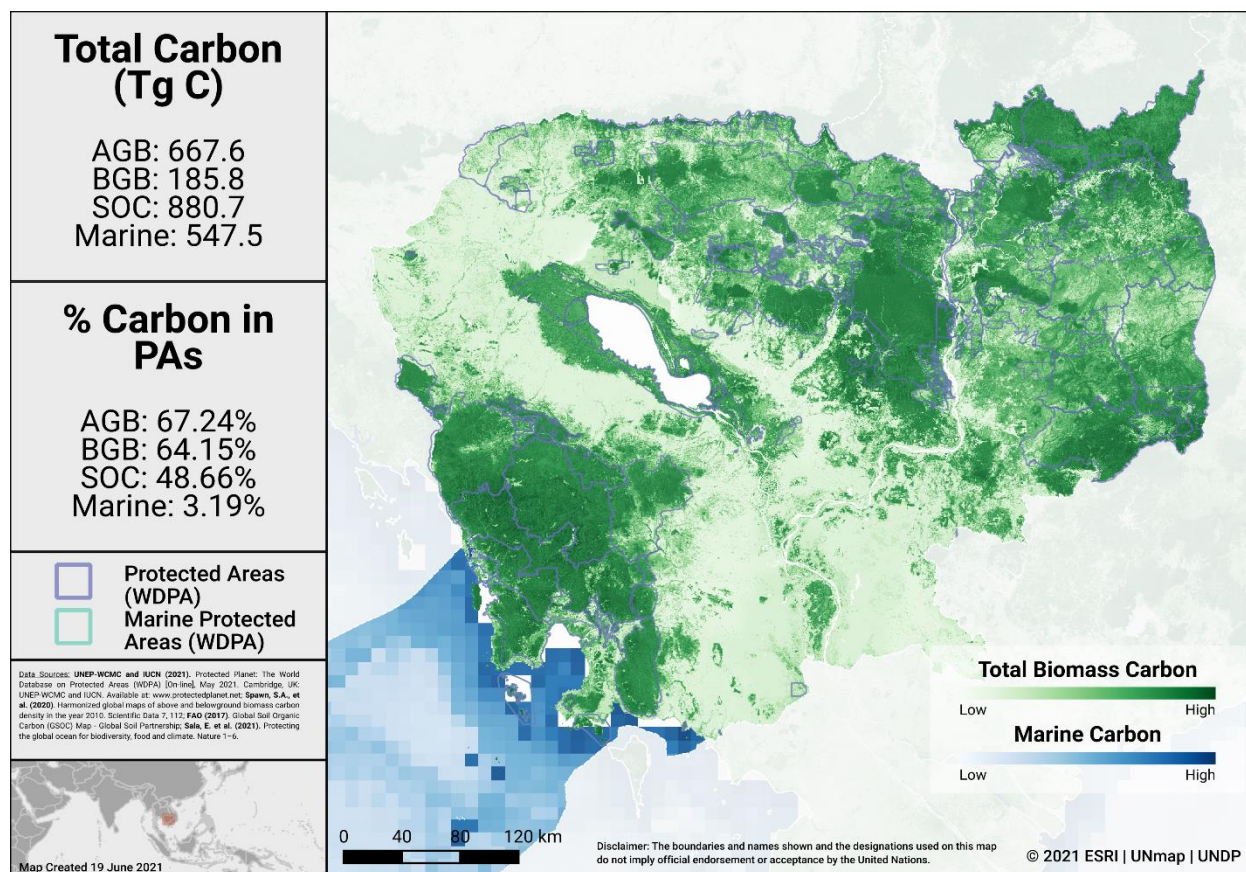
Carbon Stocks in Cambodia

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 Cambodia 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 Cambodia. Intact catchments van support more consistent water supply and improved water quality.
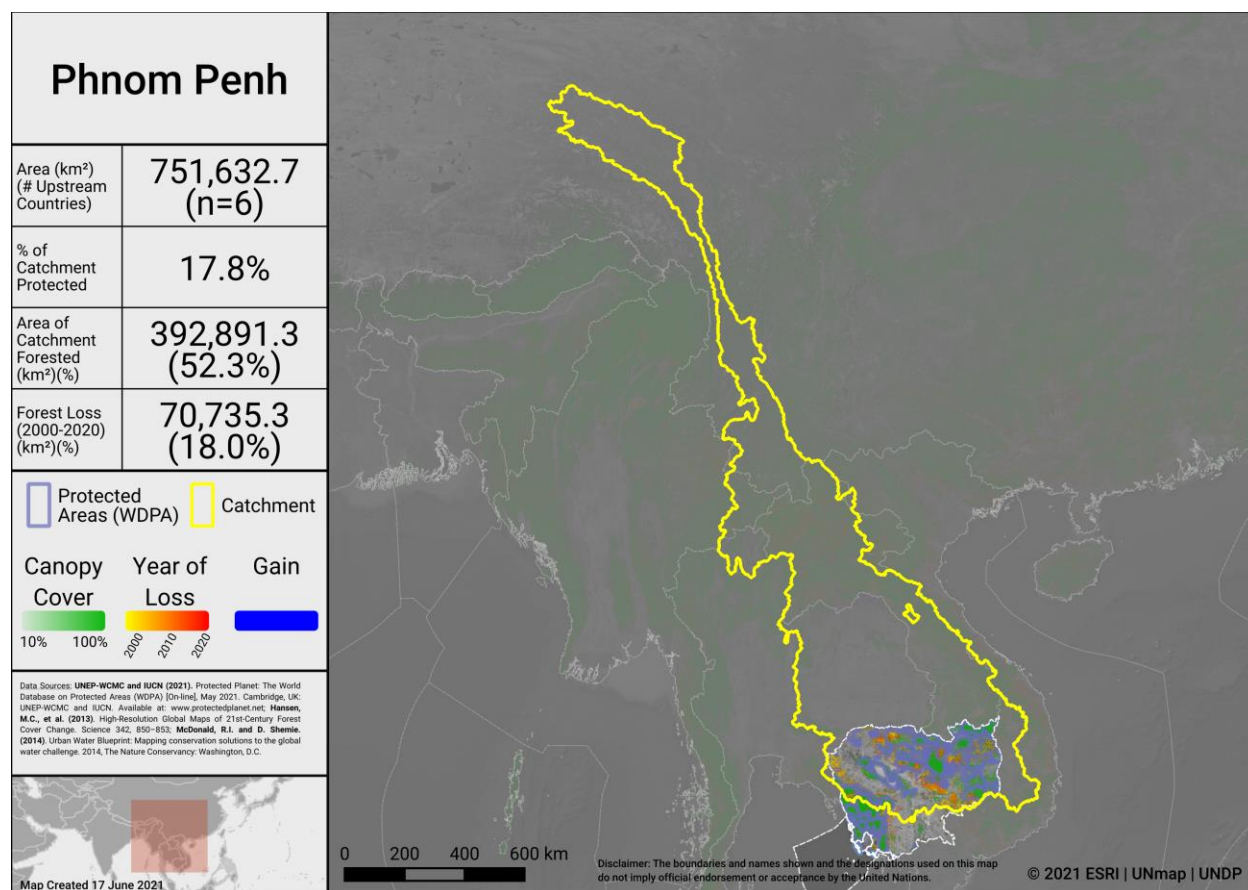
Water supply area for the city of Phnom Penh

Opportunities for action

For carbon, there is opportunity for Cambodia to increase PA and OECM coverage in marine areas with high carbon stocks, and to focus on effective management for 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 Cambodia was 28.5%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Cambodia is 0.50. This represents no significant change since 2010.

Corridor case studies

There are no corridor case studies available for Cambodia (but see general details on conserving connectivity through ecological networks and corridors in Hilty et al 2020).

Opportunities for action

There is opportunity 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 Cambodia reported in the WDPA have the following governance types:

- 100% are governed by **governments**
    - 100% by federal or national ministry or agency
    - 0.0% by sub-national ministry or agency
    - 0.0% 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
- 1.4% **do not** report a governance type
    - (a UNESCO-MAB Reserve,)

OECMs

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

Privately Protected Areas (PPAs)

From Gloss et al. (2019), a UNDP study on PPA data for Cambodia:

- PPAs **are** formally defined in PA legislation.
- PPAs **are not** directly identified in Cambodia's recent NBSAP (however, it did call for strengthening "the enabling environment through diversified governance")
- PPAs **are not** included as part of the current PA network.

See additional info in country profile and summarized in Annex II.

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

From Kothari et al .(2012), potential ICCAs (or similar designations) in Cambodia include: *

- **455** community forests (areas under the jurisdiction of the Forest Administration)
    - Which cover **3,999 km²**
    - Depending on actual local control, some community forests may qualify as ICCAs, though others may not
    - No information is available on areas communities have protected on their own for centuries.

- Other potential ICCAs include: 120 community protected areas (areas inside PAs, under jurisdiction of Ministry of Environment): 1,644.8 km².

Another example of an ICCA in Cambodia includes the *Prey Lang Wildlife Sanctuary*, which spans four provinces and 500,000 ha, including seven distinct ecosystems, including a semi-deciduous swamp forest, and is home to a number of endangered plant and anunak species of trees; the forest is primarily protected by the Prey Lang Community Network (PLCN), an alliance of Kuy indigenous communities from each of Prey Lang's provinces. See further case study details in the **ICCA Registry.**

Other Indigenous lands

Lands managed and/or controlled by Indigenous Peoples cover an area of 65,625.0 km², of which 44,641.0 km² falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 28,353.0 km² (for details on analysis see Garnett et al., 2018).

For Cambodia 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: NGO Forum on Cambodia. Indigenous Peoples in Cambodia. https://preylang.net/wpcontent/uploads/2017/09/Indigenous_peoples_cambodia.pdf (2006).

Opportunities for action

Explore opportunities for governance types that have lower representation, for Cambodia this relates to governance by Indigenous Peoples and/or local communities (IPLC), shared governance, etc.

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

Organization	Year	Project Description
Monks Community Forest	2010	Monks Community Forest is an 18,261 ha area of evergreen forest in northwest Cambodia. In response to widespread deforestation, the monks of the Samraong Pagoda acquired legal protection of the forest, and have established patrol teams, demarcated the Forest's boundaries, and raised environmental awareness among local communities. The monks have developed unique approaches to law enforcement based on Buddhist principles, demonstrating the power of linking conservation with traditional customs and beliefs. A co-management committee of local villagers, government authorities and NGOs has been developed to manage what is now Cambodia's largest community forest. While logging and hunting are prohibited, villagers may use traditional fishing methods, collect fallen timber for construction, and harvest non-timber forest products like bamboo, wild ginger, fruit and mushrooms. Illegal logging of the forest has been reduced significantly.
Prey Lang Community Network (PLCN)	2015	Working to protect a 500,000-hectare forest in the Cambodian lowlands – the largest primary lowland evergreen forest remaining in the country – Prey Lang Community Network is an alliance of Indigenous Kuy communities that is using communications technologies to document forest crime. Since 2007, the network has advocated against illegal logging and large-scale, government-sanctioned land grabs for mining, agribusiness, and logging concessions. With an emphasis on non-violent actions and peaceful dialogue, the network has engaged civil society, Indigenous associations, commune and district authorities, NGOs, and research institutions in a joint movement for environmental justice and sustainable development with the goal of improving the livelihoods, food security, and health of the 200,000 people living adjacent to the forest. The network uses forest patrols and smartphone technology to georeference, document, and upload information about forest health, illegal logging, and wildlife poaching. As a result of their work, the Government of Cambodia drafted a sub-decree to make Prey Land a protected forest. The network has become the primary source of reliable on-the-ground data about the forest, information that is now used by a range of stakeholders to strengthen advocacy efforts on continued protection of Prey Lang.

Organization	Year	Project Description
Tmatboey Community	2008	The village of Tmatboey comprises 236 families, some from the Kui minority ethnic group, and lies within Preah Vihear province, in the remote Northern Plains of Cambodia. The plains of Preah Vihear are home to the world's largest breeding populations of Giant Ibis and White-Shouldered Ibis – both critically endangered species; in total, the area supports 50 species on the IUCN Red List, and is for many of these species a last refuge, making the Northern Plains a focus for conservation interventions. One approach has used revenue from ecotourism to "reward" Tmatboey community members for conserving these rare bird species. The Tmatboey Community Protected Area Committee, in partnership with the Wildlife Conservation Society, has developed a community-based monitoring scheme in which local residents are paid a small fee for reporting and monitoring nests of endangered species, rather than selling the eggs on the thriving black market operating on the Thailand-Laos border.

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, Cambodia has 69 PAs reported in the WDPA; of these PAs, 25 (36.2%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 16.5% (30,149 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
    - 41.6% of the area of terrestrial PAs have completed evaluations.
- 0.5% (225 km^2) of the marine area of the country is covered by PAs with completed management effectiveness evaluations.
    - 32.5% 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 not** been met for marine PAs.

As of May 2021, there are 0 OECMs in Cambodia 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 Cambodia cover approximately 38.2% of the country, an area of 69,199.1 km^2. Approximately 41.6% (28,785.0 km^2) of this is within the protected area estate of Cambodia. Over the period 2000-2020 loss of forest cover amounted to over 21,704.6 km^2, or 12.0% of the country (31.4% of forest area), of which 5,560.2 km^2 (25.6% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Cambodia 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)	69,199.1
% of Country Forested	38.2%
% of Forested Areas Protected	41.6%
Forest Loss (2000-2020) (km²)(%)	21,704.6 (31.4%)
Outside PAs (2000-2020) (km²)(%)	16,144.3 (74.4%)
Inside PAs (2000-2021) (km²)(%)	5,560.2 (25.6%)

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   40   80   120 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 Cambodia
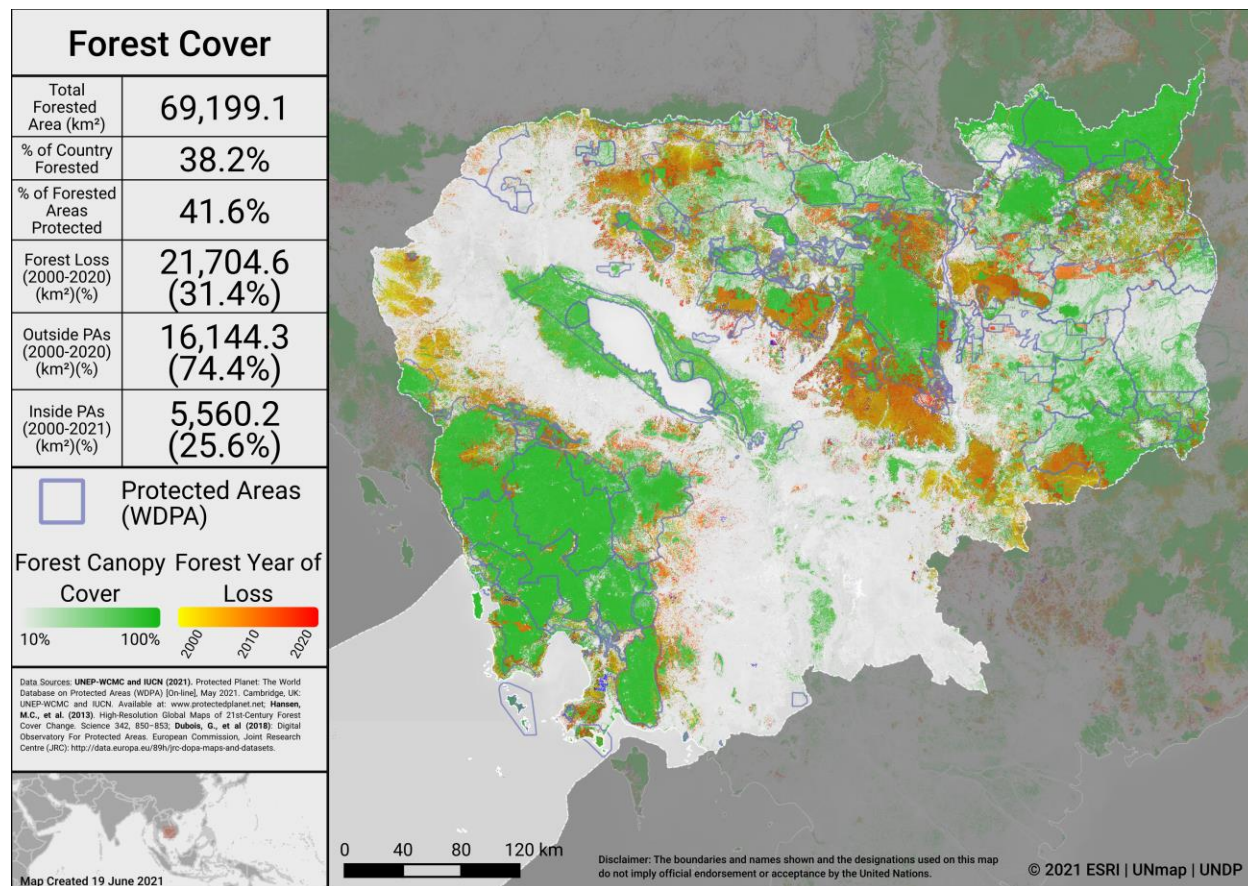
Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has not** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for both terrestrial and marine 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 East Asia and Southeast Asia on achieving Aichi Biodiversity Targets 11 and 12 took place 15 - 18 September 2015 in Yanji, Jilin Province, China. 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/

The following actions were identified during the workshops:

Terrestrial and marine coverage: Have a plan to establish a marine PA

Ecological representation:

1) Have plan for the expansion of the protection of the Tonle Sap-Mekong peat swamp forests

2) Have plan for doubling marine and coastal PAs from 2010 level

3) Have plan for establishment of the MPA.

Areas Important for biodiversity and ecosystem services:

1) Conduct research on natural and economic values of PA system and biodiversity and feasibility assessment on potential ecosystem services and its payment, PA ecotourism development and NTFPs for effective PAs management

2) Have plan to study, assess the AIBs and request for establishing protected areas or conservation areas for IBAs, and management plans for these protected areas/conservation areas.

3) Using GEF fund to start the implementation of Areas Important Ecosystem Services

4) Capacity Building on National Ecosystem Assessment using IPBES approach.

Connectivity and integration into the wider landscape seascapre: No actions were identified for this element of Target 11.

Management effectiveness:

1) Plan to conduct clear zoning and demarcation for PAs and develop management plans

2) Strengthen the Institutional Capacity Building.

Governance and Equity: Implement the Nagoya protocol on ABS (Ensure fair and equity of benefit sharing from genetic resource utilization and TK with special attention to the most vulnerable groups especially Indigenous and local community).

OECMs:

1) Improve the function of weak CPAs

2) Establish the botanical garden and herbarium as the Ex situ conservation.

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

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

National Target 8 (related to Aichi Target 11): In 2020, at the latest, existing protected areas and conservation areas, including community based natural resource management areas, have management plans and have started effective implementation.

By 2020, (i) the coverage of marine and coastal protected areas and freshwater protected areas has at least doubled as compared to the 2010 levels;

(ii) Currently unprotected areas of particular importance for biodiversity and ecosystem services that are under a lot of pressures from human activities are identified and integrated in the protected area system; and

(iii) Protected areas and conservation areas have been valued, are part of a well-connected protected area system and have been integrated in national sustainable development goals and national green growth strategies, plans and programmes;

By 2029, protected forest covers 3.0 million hectares, in line with the objectives of the National Forest Programme 2010-2029

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

NBSAP Action #	Action (original language from NBSAP)
5.1.1	Conduct assessments on important aspects of protected areas and conservation areas, including their coverage and location; the ecological gaps in their representativeness; their values and importance; their connectivity and integration into wider landscapes and seascapes; their governance systems, whether management is governed by plans that have been adopted, the effectiveness and equity of their management; their capacity requirements, threats and barriers to their effective management; their environmental and biodiversity policy environment and the sustainability of their finances. In particular, conduct economic evaluations and assessments of resources for the potential development of revenue-based activities within protected areas, including ecotourism development in protected areas and buffer zone management with community benefits.
5.1.2	Enhance understanding and organize into user-friendly databases the information on the functions, roles, values and requirements of protected areas and other conservation areas, considered individually and as a system in Cambodia
5.1.3	Ensure that information of relevance to decision-making is widely accessible and that it raises awareness.
5.2.1	Maintain and, as required, rehabilitate existing protected areas, other conservation areas and the entire national protected area system;

NBSAP Action #	Action (original language from NBSAP)
5.2.2	Identify and create new protected areas and/or other new conservation areas, including: i) Areas of particular national, regional or global importance for biodiversity and the delivery of ecosystem services, with a particular focus on areas that are Areas of particular national, regional or global importance for biodiversity and naturally resilient to climate change and that can serve as refugia to species that will be misplaced by climate change in the future; ii) Areas that are considered to be part of the country"s natural and cultural heritage; and: iii) Ecologically representative areas
5.2.3	Enhance management effectiveness and efficiency and, in particular, strengthen the ongoing management of designated protected areas by developing and enforcing management policies, guidelines and plans, and ensure that protected areas implement a Conservation Assured approach
5.2.4	Ensure equity in decision-making processes and benefit sharing with special attention to the most vulnerable group.
5.2.5	Ensure connectivity among protected areas through corridors and/or stepping stones bearing in mind the ecosystem approach
5.2.6	Integrate protected areas into wider landscapes and seascapes, and strengthen and create transboundary protected areas, also bearing in mind climate change
5.2.7	Integrate protected areas and other conservation areas within sector strategies and policies and wider plans and programmes including Reducing Emissions from Deforestation and Forest Degradation "plus" (REDD+), other payments for ecosystem services (PES), environmental impact assessments (EIA), and strategies or policies for nature-based tourism, forestry, fisheries, agriculture, energy, transportation, climate change, green economy and Cambodia"s sustainable development goal
12.2.3	Identify and address the gaps in the protected area system, bearing in mind the possible range shifts in plant and animal species populations in the face of climate change
12.2.4	Ensure climate resilience of critical ecosystems through strengthening of the national protected area system consisting of Pas and conservation areas that are ecologically representative, effectively managed, well connected and well integrated in wider landscapes and seascapes
12.3.4	Ensure that protected areas and conservation areas are effectively managed through robust patrolling and zonation plans to limit climate induced pressures through increased exploitation
12.3.5	Ensure protected areas supporting threatened species are effectively managed and resourced
14.3.1	Support protected areas and conservation areas

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

GEF ID	PA increase?	Area to be added (km²)	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4905	No	N/A	All except Ecologically representative and Areas important for biodiversity
9781	No	N/A	Ecosystem services; Effectively managed; Equitably managed; 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 post-2020:

#OceanAction21780: Marine conservation, protection, and sustainable use of marine biodiversity and marine management for monitoring, control and surveillance (MCS) included for combating IUU-fishing and its related fisheries crime activities with community resilience and adby Ministry of Agriculture Forestry and Fisheries, and Ministry of Environment(Government).

- Area to be added: no area given.
- Progress report: No progress report submitted (as of March 2021).
- Further details available at:
  https://oceanconference.un.org/commitments/?id=21780.

#OceanAction27759: Protecting Kep Archipelago (Cambodia)by Marine Conservation Cambodia(Non-governmental organization (NGO)).

- Area to be added: no area given.
- Progress report: No progress report submitted (as of March 2021).
- Further details available at:
  https://oceanconference.un.org/commitments/?id=27759.

OTHER ACTIONS/COMMITMENTS

High Ambition Coalition for Nature and People

Cambodia **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

Cambodia **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: 42.5 Mt CO_2e/yr
Nationally Determined Contribution	Coastal ecosystems	Avoided mangrove impacts: 1.07 Mt CO_2e/yr
Nationally Determined Contribution	Forest ecosystems	Promoting use of renewable energy and adopting energy efficiency for garment factory, rice mills, and brick kilns
Nationally Determined Contribution	Forest ecosystems	Promoting energy efficiency for buildings and more efficient cookstoves
Reducing emissions from deforestation and forest degradation	Forest ecosystems	Strengthen management of forest conservation areas, such as protected areas and flooded and mangrove conservation areas
Reducing emissions from deforestation and forest degradation	Forest ecosystems	Promote forest land security through forest land classification, zoning, demarcation and registration.
National Biodiversity Strategy Action Plan	Forest ecosystems	Village woodlot allocation for sustainable fuelwood collection.
National Biodiversity Strategy Action Plan	Forest ecosystems	Integration of wood fuel production into community forestry so as to ensure sustainable fuelwood supply and prevent negative impacts of energy development and use on natural ecosystems
National Forest Programme	Forest ecosystems	Classification of PFE according to forest functions and its potentials, to enable effective development plan and forest utilization
National Forest Programme	Forest ecosystems	Conserve in-situ and ex-situ forest genetic resources and establish seed banks for reforestation programme
National Forest Programme	Forest ecosystems	Develop multi-purpose forest plantations
National Biodiversity Strategy Action Plan	Wetland ecosystems	Integrate biodiversity protection measures in flood prevention awareness programs and rehabilitation plans (including tree planting on riverbanks and foothills, preventing deforestation, etc.)

ANNEX I

FULL LIST OF TERRESTRIAL ECOREGIONS

Ecoregion Name	Area (km^2)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km^2)	% Protected in Country
Cardamom Mountains rain forests	31,395.0	71.2	17.3	20,686.6	65.9
Central Indochina dry forests	70,617.9	22.1	38.9	25,759.6	36.5
Indochina mangroves	1,101.8	4.1	0.6	508.2	46.1
Southeast Indochina dry evergreen forests	47,314.9	38.2	26.1	21,018.7	44.4
Southern Annamites montane rain forests	322.0	0.7	0.2	255.8	79.4
Tenasserim-South Thailand semi-evergreen rain forests	24.4	0.0	0.0	4.4	18.0
Tonle Sap freshwater swamp forests	15,808.9	61.0	8.7	3,334.1	21.1
Tonle Sap-Mekong peat swamp forests	14,753.6	50.4	8.1	162.8	1.1

ANNEX II

ADDITIONAL DETAILS ON PPAs

• Article 8 of the 2001 Land Law stipulates that private property may be held only by Cambodian citizens and legal entities registered in Cambodia.

• In addition, in 2017, the MoE adopted guidelines for establishment and management of Community Protected Areas (CPA). CPAs can be established in the Sustainable Use Zone or Community Zone of Natural Protected Areas and allow local communities to manage the forest and natural ecosystems within the protected area system. Nearly 40 CPAs have been created, ranging in size from under 10 ha to over 2,000, and protecting over 419,000 ha; however, CPAs do not seem to be integrated into the national protected areas system.

• PPAs were Not identified in the county's recent NBSAP; however, in the NBSAP one of the three strategic objectives includes a call to "strengthen the enabling environment through diversified governance, enhanced participation, increased coordination and cooperation among stakeholders at the national, regional and global levels, and enhanced human, institutional, technological and sustainable financial capacities.".

Case studies/best practices:

• *Central Cardamom Mountains National Park*: **401,065 ha**, the forested area of the Cardamom Mountains is the largest remaining continuous stretch of the Indochinese Tropical Forest Belt and are an important area for biodiversity and the Tonle Sap watershed. In 2002, conservation groups Wildlife Alliance (WA) and Conservation international (CI) were both contracted to assist the Cambodian government in conservation activities in the area. Private conservation actions have been augmented by increasing government support. In 2004, Cambodia declared a Central Cardamom Protected Forest, and, in 2016, this was upgraded and renamed the Central Cardamom Mountains National Park. In 2016, CI launched the Central Cardamom Mountains National Park Trust Fund to finance the area's management in perpetuity.

• *The Maddox Jolie-Pitt Project*: After purchasing a land of 50 ha in western Cambodia, American film celebrity Angeline Jolie entered into an agreement with the government to support a financially struggling protected area adjacent to the property. The Maddox Jolie-Pitt Foundation (MJP) has also funded rangers, conservation activities, as well as economic development projects with local communities. Since 2009, MJP has supported the creation and management of a transboundary peace park, connecting Samlaut to two Thai PAs and another nearby Cambodian PA, protecting a combined **436,996 ha** of land.

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

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