



Convention on  
Biological Diversity



# Aichi Biodiversity Target 11 Country Dossier: LAO PEOPLE'S DEMOCRATIC REPUBLIC

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## GLOSSARY

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



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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.

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## EXECUTIVE SUMMARY

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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](mailto:protectedareas@unep-wcmc.org) with any updates to the information in these databases.

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

#### Coverage

- **Status:** as of May 2021, terrestrial coverage in Lao People's Democratic Republic is 43,219.9 km<sup>2</sup> (18.7%).
- **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

- **Status:** Lao People's Democratic Republic contains 9 terrestrial ecoregions: the mean coverage by reported PAs and OECMs is 17.0%; all ecoregions have at least some coverage by reported PAs and OECMs.
- **Opportunities for action:** there is opportunity for Lao People's Democratic Republic to increase protection in terrestrial ecoregions that have lower levels of coverage by PAs or OECMs.

#### Areas Important for Biodiversity

- **Status:** Lao People's Democratic Republic has 49 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 47.5%, while 17 KBAs have no coverage by reported PAs and OECMs.



- **Opportunities for action:** there is opportunity for Lao People's Democratic Republic 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 Lao People's Democratic Republic, 23.1% of aboveground biomass carbon, 19.1% of belowground biomass carbon and 18.8% of soil organic carbon is covered by PAs and OECMs.
- **Opportunities for action:** for carbon, there is opportunity for Lao People's Democratic Republic to increase PA and OECM coverage in terrestrial areas with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.
- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

### Connectivity and Integration

- **Status:** coverage of protected-connected lands is 6.9%.
- **Opportunities for action:** there is opportunity for a targeted increase in connecting PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Increasing connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.
- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

### Governance Diversity

- **Status:** the most common governance type(s) for reported PAs in Lao People's Democratic Republic is: 90.3% under Government (80.6% Federal or national ministry or agency; 9.7% Government delegated management).
- **Opportunities for action:** explore opportunities for governance types that have lower representation, for Lao People's Democratic Republic this could relate to governance by Indigenous Peoples and/or local communities (IPLC) or shared governance. Increase efforts to identify the governance types for the 9.7% of sites that do not have their governance type reported.
- There is also opportunity for Lao People's Democratic Republic 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:** 0.0% of terrestrial PAs have completed Protected Area Management Effectiveness (PAME) assessments reported.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs, therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations to achieve the target.
- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.



## INTRODUCTION

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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 Lao People's Democratic Republic. Section I of the dossier presents data on the current status of Lao People's Democratic Republic'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 Lao People's Democratic Republic, in relation to each Target 11 element. The analyses present options for improving Lao People's Democratic Republic's area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Lao People's Democratic Republic'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](http://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](http://www.wcmc.io/WDPA_Manual)), and these should be directed to [protectedareas@unep-wcmc.org](mailto: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](http://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

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



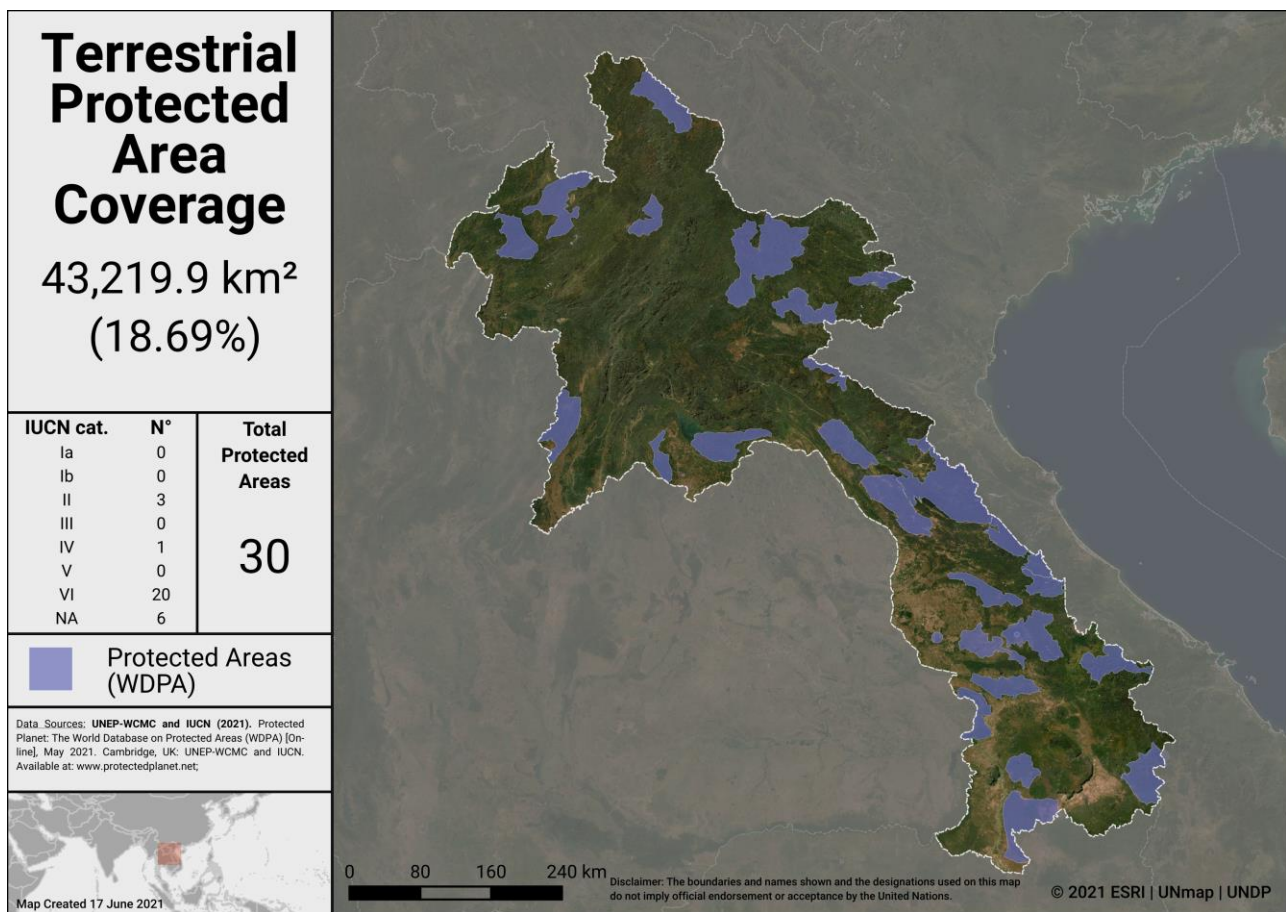
## COVERAGE

As of May 2021, Lao People’s Democratic Republic has **31** protected areas reported in the World Database on Protected Areas (WDPA). 1 proposed PA 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, Lao People’s Democratic Republic has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for Lao People’s Democratic Republic:

- 18.7% terrestrial (30 protected areas, 43,219.9 km<sup>2</sup>)



Terrestrial Protected Areas in Lao People’s Democratic Republic

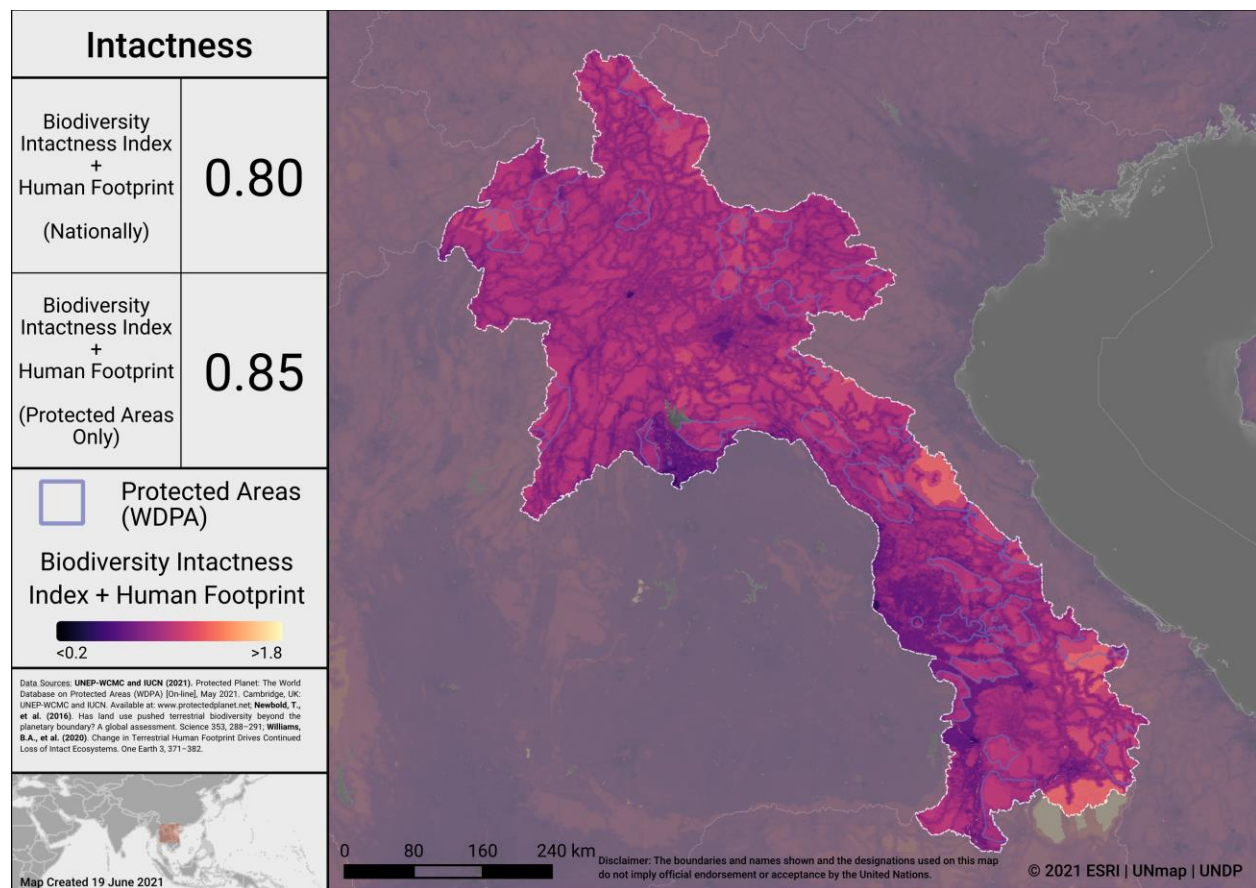
### Potential OECMs

There are currently no potential OECM examples for Lao People’s Democratic Republic.



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 Lao People’s Democratic Republic considers where to add new PAs and OECMs, the map below identifies areas in Lao People’s Democratic Republic where intact 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 Lao People’s Democratic Republic

To explore more on intactness visit the UN Biodiversity Lab: [map.unbiodiversitylab.org](http://map.unbiodiversitylab.org).

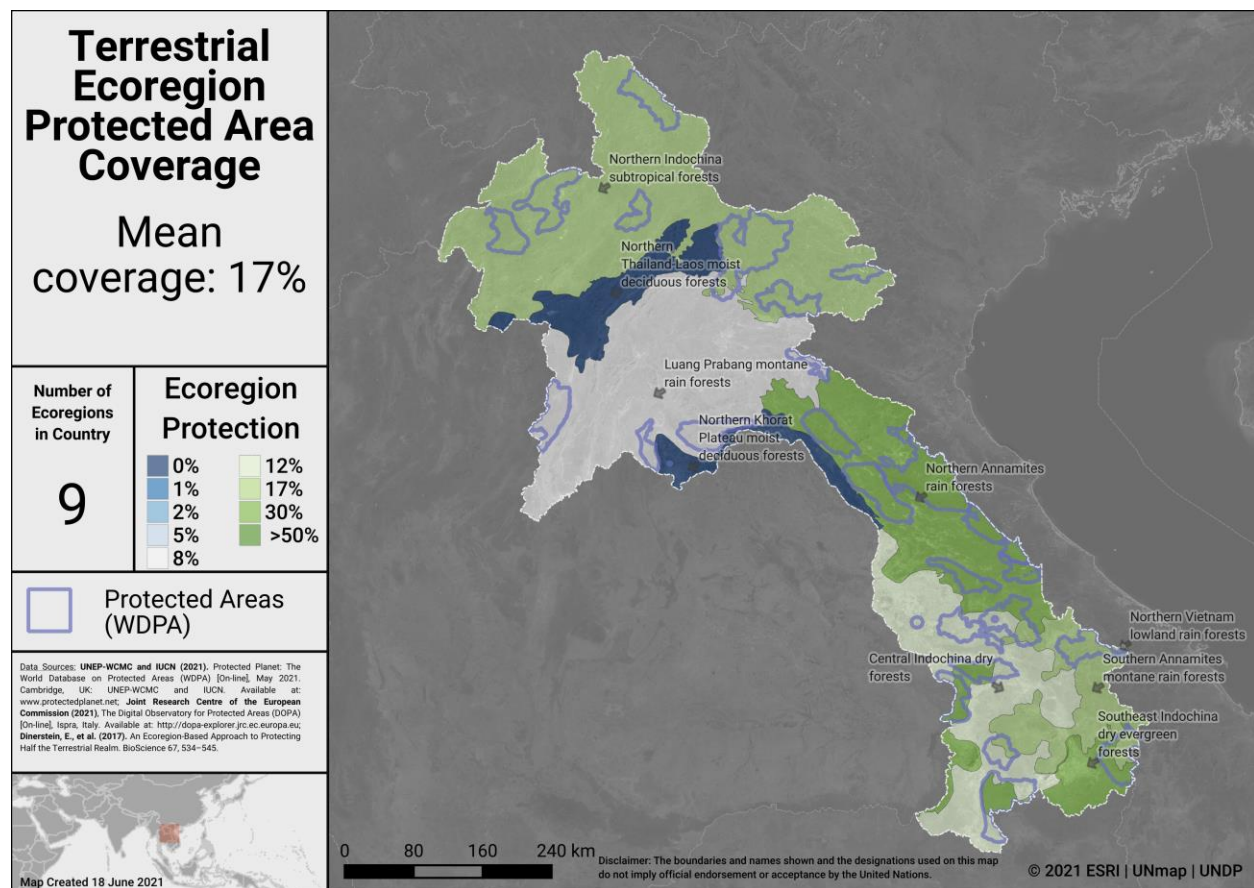
## ECOLOGICAL REPRESENTATIVENESS

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

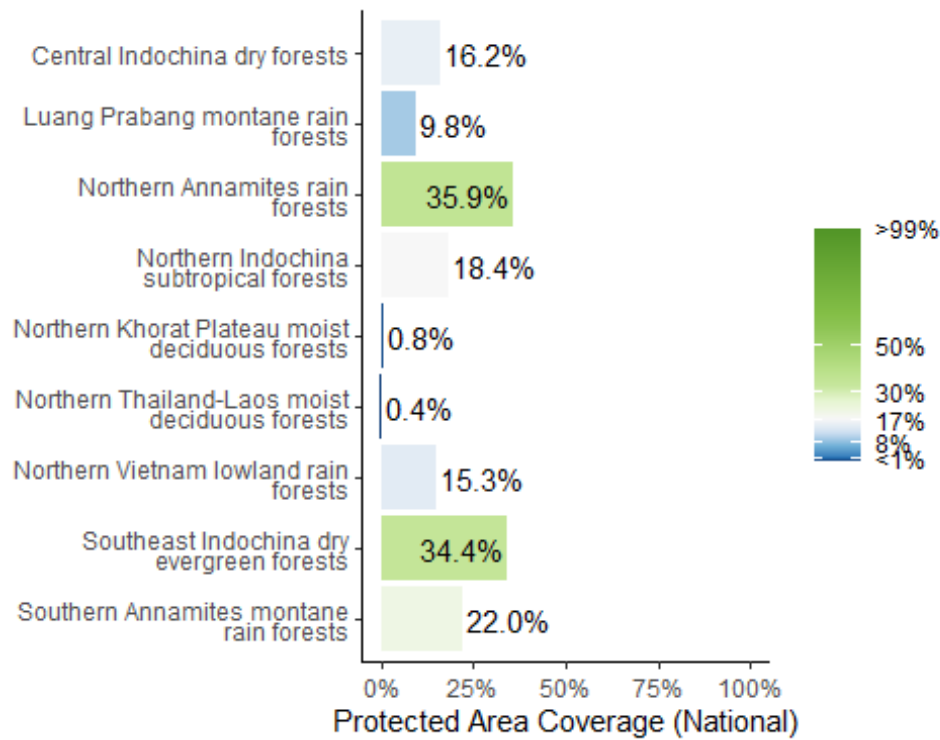
Lao People’s Democratic Republic has 9 **terrestrial** ecoregions. Out of these:

- All 9 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 17.0%.

A full list of ecoregions in Lao People’s Democratic Republic is available in Annex I.



Terrestrial ecoregions in Lao People’s Democratic Republic



Terrestrial ecoregions of the World (TEOW) in Lao People’s Democratic Republic

### Opportunities for action

There is opportunity for Lao People’s Democratic Republic to increase protection in terrestrial ecoregions that have lower levels of coverage by PAs or OECMs.





## AREAS IMPORTANT FOR BIODIVERSITY

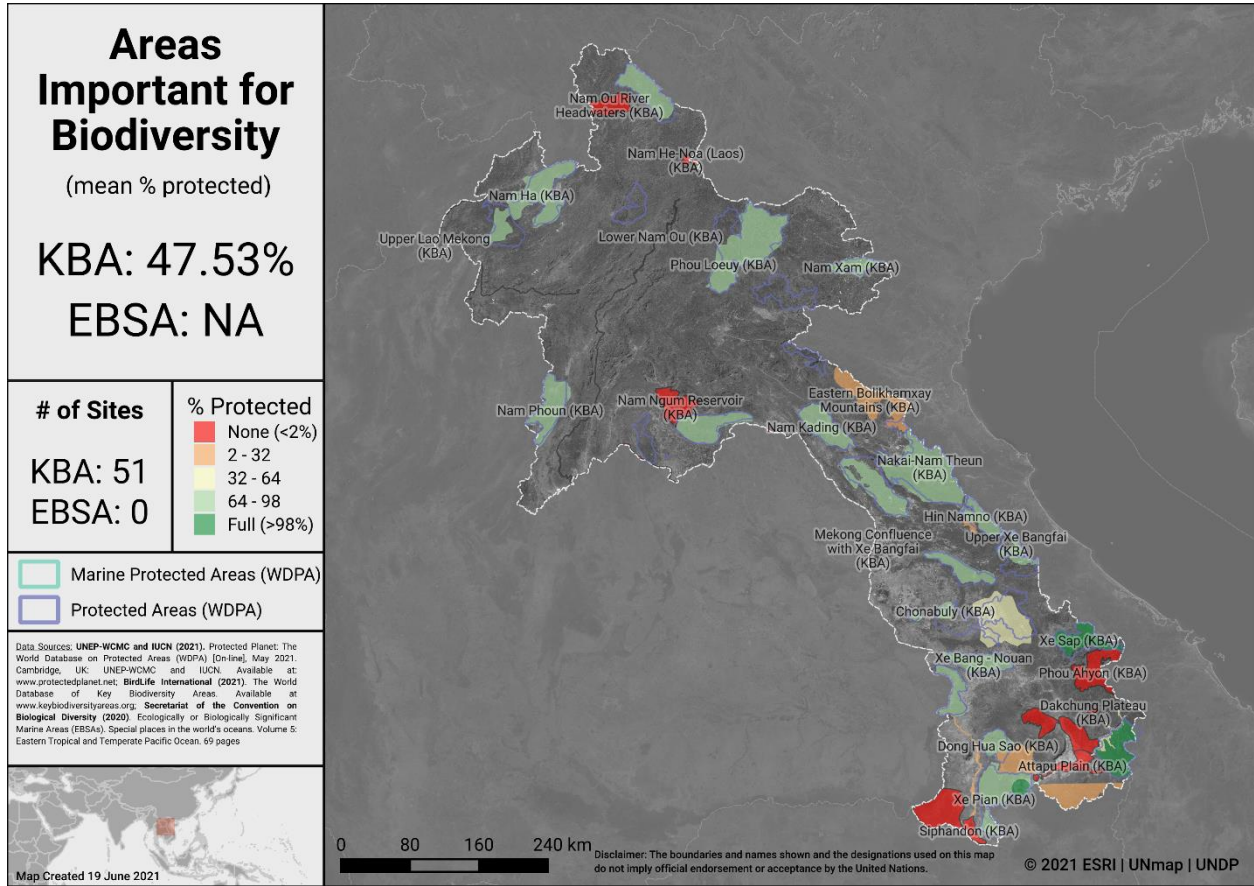
### Key Biodiversity Areas (KBAs)

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](http://www.keybiodiversityareas.org).

Lao PDR has 51 Key Biodiversity Areas (KBAs) [49 are included in the analysis]

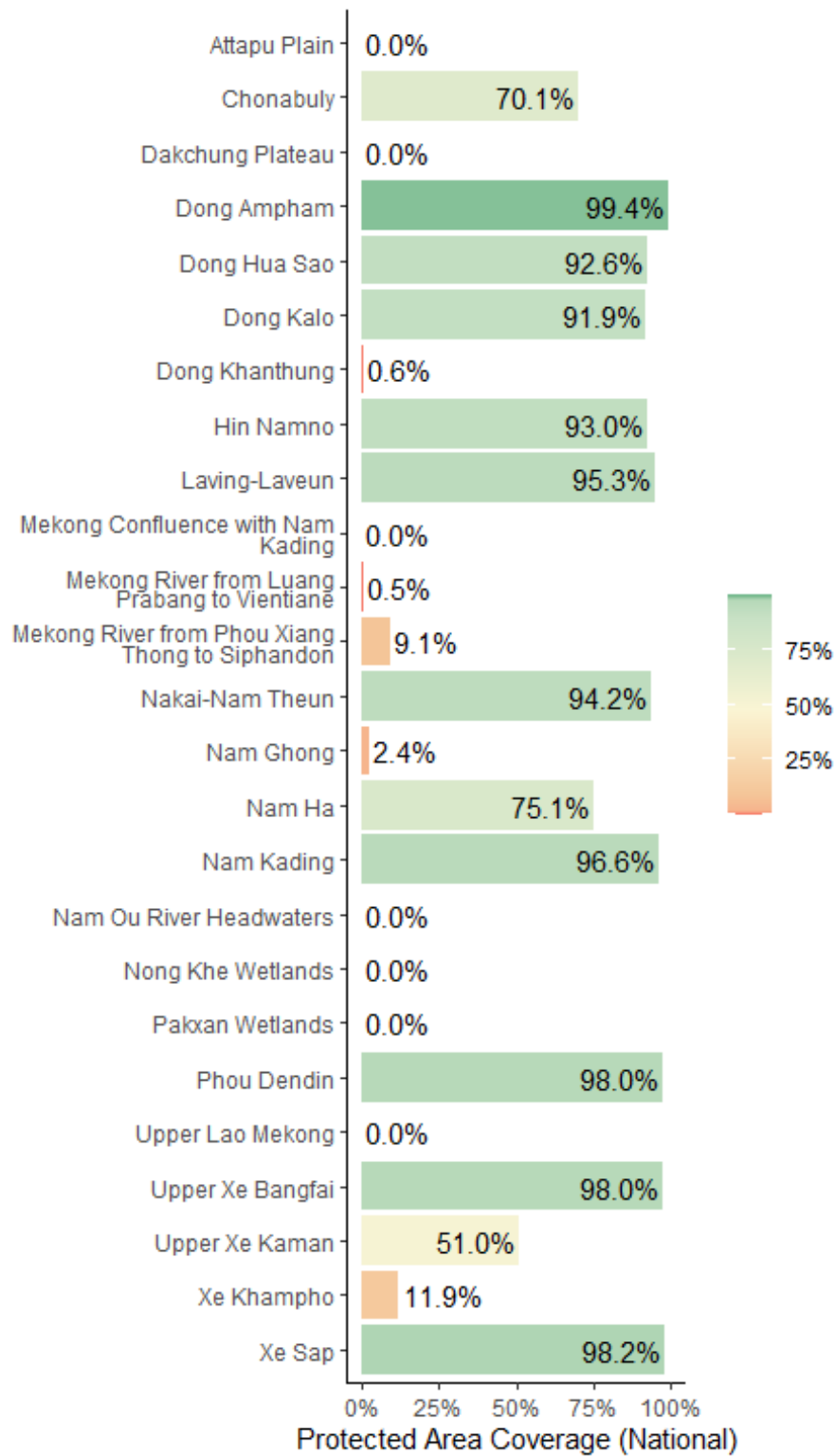
- Mean percent coverage of all KBAs by PAs and OECMs in Lao PDR is **47.5%**.
- **2** KBAs have full (>98%) coverage by PAs and OECMs.
- **30** KBAs have partial coverage by PAs and OECMs.
- **17** KBAs have no (<2%) coverage by PAs and OECMs.
- *2 KBAs lack spatial data to allow PA/OECM coverage to be determined*



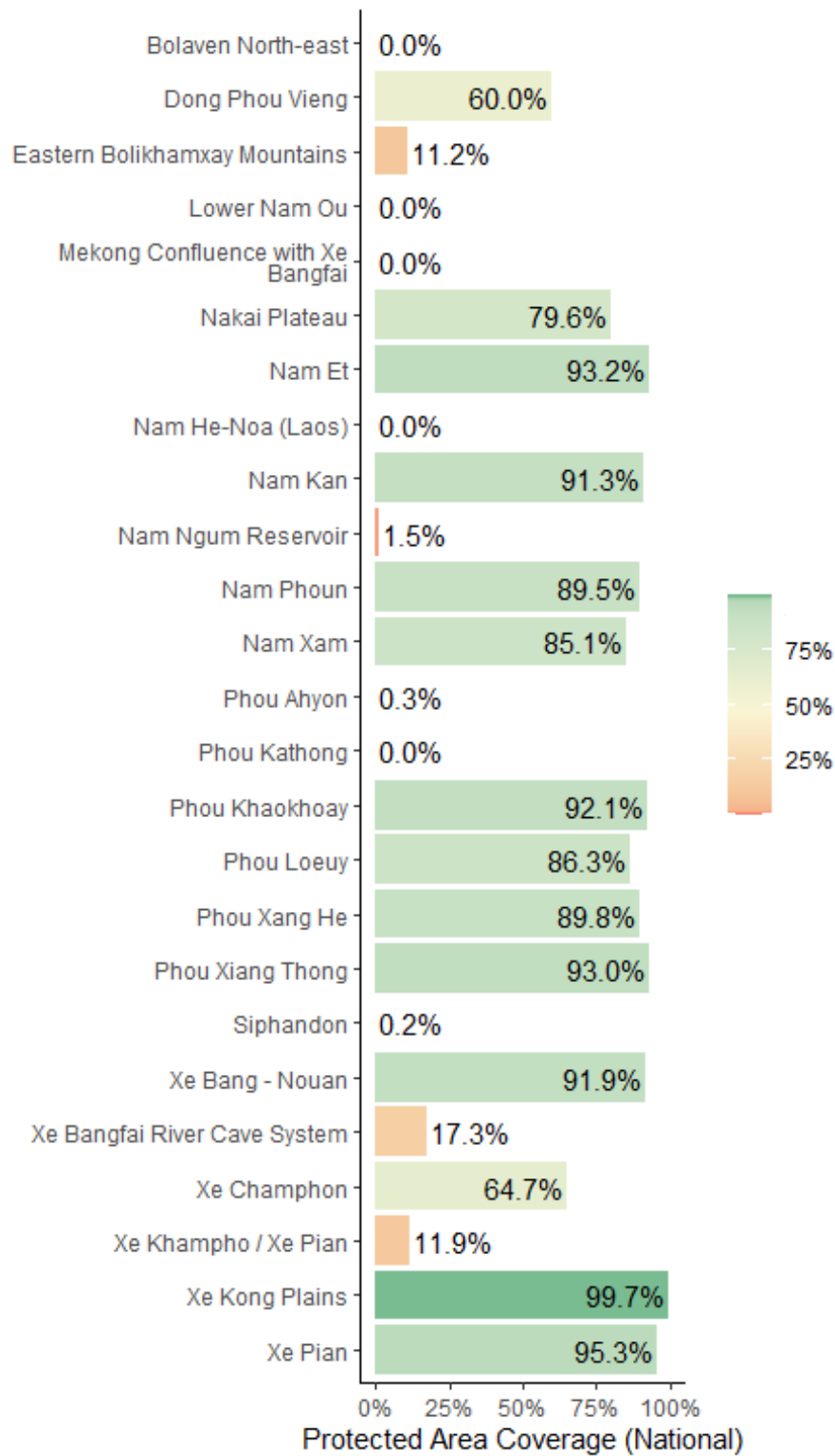


Areas Important for Biodiversity in Lao People’s Democratic Republic

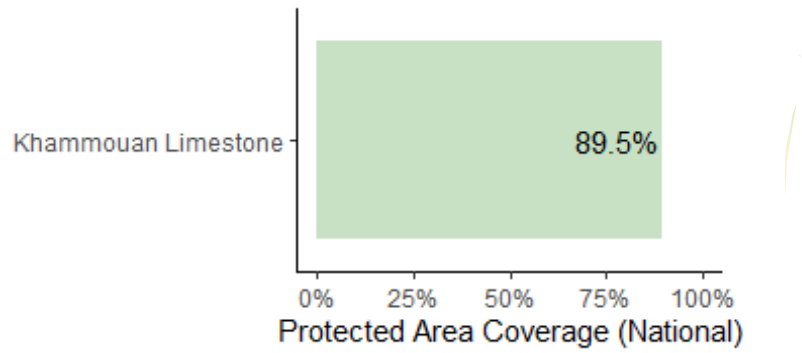




Key Biodiversity Area Coverage (KBA) in Lao People's Democratic Republic



Key Biodiversity Area Coverage (KBA) in Lao People’s Democratic Republic (continued)



Key Biodiversity Area Coverage (KBA) in Lao People's Democratic Republic (continued)

### Opportunities for action

There is opportunity for Lao People's Democratic Republic to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.



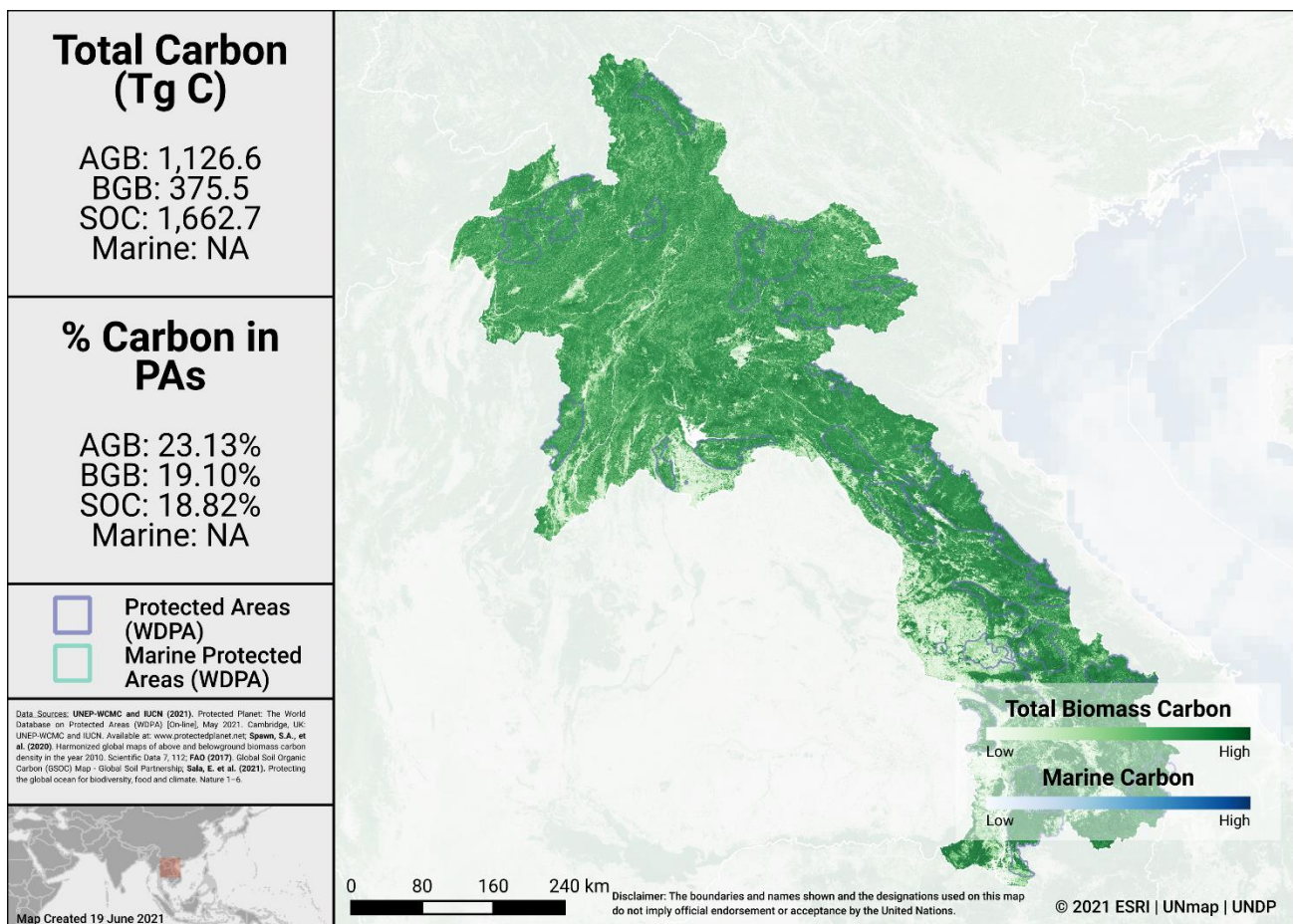
## AREAS IMPORTANT FOR ECOSYSTEM SERVICES

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

### Carbon

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

The map below presents the total carbon stocks in Lao People's Democratic Republic and the percent of carbon in protected areas. The total carbon stocks is 1,126.6 Tg C from aboveground biomass (AGB), with 23.1% in protected areas; 375.5 Tg C from below ground biomass (BGB), with 19.1% in protected areas and 1,662.7 Tg C from soil organic carbon (SOC), with 18.8% in protected areas.



Carbon Stocks in Lao People's Democratic Republic

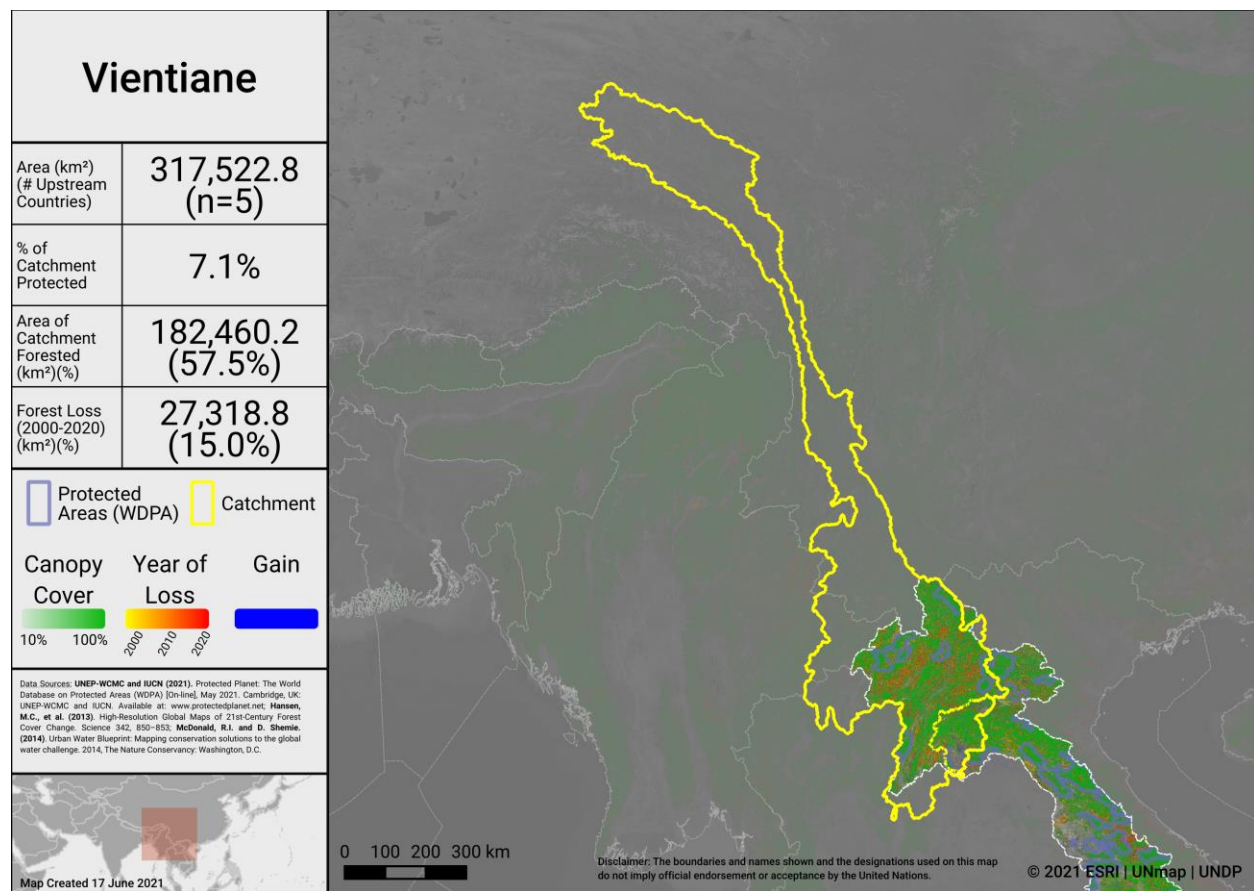


Water

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 Lao People’s Democratic Republic 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 catchments of Lao People’s Democratic Republic. Intact catchments can support more consistent water supply and improved water quality.



Water supply area for the city of Vientiane

### Opportunities for action

For carbon, there is opportunity for Lao People's Democratic Republic to increase PA and OECM coverage in terrestrial areas with high carbon stocks, as identified in the map above. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

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



## CONNECTIVITY & INTEGRATION

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

### Protected Connected Land Indicator (Prot-Conn)

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) in Lao People's Democratic Republic was 6.9%.

### PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Lao People's Democratic Republic is 0.42. This represents no significant change since 2010.

### Corridor case studies

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

### Opportunities for action

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

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



## GOVERNANCE DIVERSITY

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

As of May 2021, PAs in Lao People's Democratic Republic reported in the WDPA have the following governance types:

- 90.3% are governed by **governments**
  - 80.6% by federal or national ministry or agency
  - 0.0% by sub-national ministry or agency
  - 9.7% 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
- 9.7% **do not** report a governance type

### OECMs

As of May 2021, there are **0** OECMs in Lao People's Democratic Republic reported in the WD-OECM, therefore there is no data available on OECM governance types.

### Privately Protected Areas (PPAs)

There is currently no data available on PPAs for Lao People's Democratic Republic (see Gloss et al., 2019, and Stolton et al., 2014 for details).

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

There is currently no data available on ICCAs for Lao People's Democratic Republic (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 182,959.0 km<sup>2</sup>, of which 149,482.0 km<sup>2</sup> falls outside of formal protected areas. Indigenous lands with a human footprint less than 4 (considered as 'natural landscapes') cover an area of 43,675.0 km<sup>2</sup> (for details on analysis see Garnett et al., 2018).

For Lao People's Democratic Republic, 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: Directorate of Intelligence, Office of Basic and Geographic Intelligence, U.S. Indochina Atlas (University of Texas Libraries, 1970)..

**Opportunities for action**

Explore opportunities for governance types that have lower representation, for Lao People’s Democratic Republic this could relate to governance by Indigenous Peoples and/or local communities (IPLC), shared governance, etc. Increase efforts to identify the governance types for the 9.7% of sites that do not have their governance type reported.

There is also opportunity for Lao People’s Democratic Republic 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. Lao People’s Democratic Republic has the following Equator Prize winners that showcase examples of local, sustainable community action:

Organization	Year	Project Description
Nam Ha Ecoguide Service – Lao People’s Democratic Republic	2006	<p>Located in the remote northern province of Luang Namtha on Lao PDR's border with China, the 222,400-hectare Nam Ha National Protected Area includes some of the country's most significant wilderness areas. Altitudes range from river valleys and plains to northern highland peaks, supporting a broad range of habitats and biodiversity.</p> <p>Since 1999, conservation efforts in the area have been linked to improving the potential of local ecotourism, which now underpins the economy for the area's 57 villages and 3,451 households. Community members are trained as eco-guides and operate village-based lodges and forest camps. They are also trained to monitor threats to biodiversity in the protected area, supporting the work of the critically under-resourced Protected Area Management Unit. The project has provided a model for co-management of Laos's protected areas.</p>







Photo from Equator Prize Project: Nam Ha Ecoguide Service – Lao People's Democratic Republic



## 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, Lao People's Democratic Republic has 31 PAs reported in the WDPA; of these PAs, 0 (0.0%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

- 0.0% (0.0 km<sup>2</sup>) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 0.0% of the area of terrestrial PAs have completed evaluations.

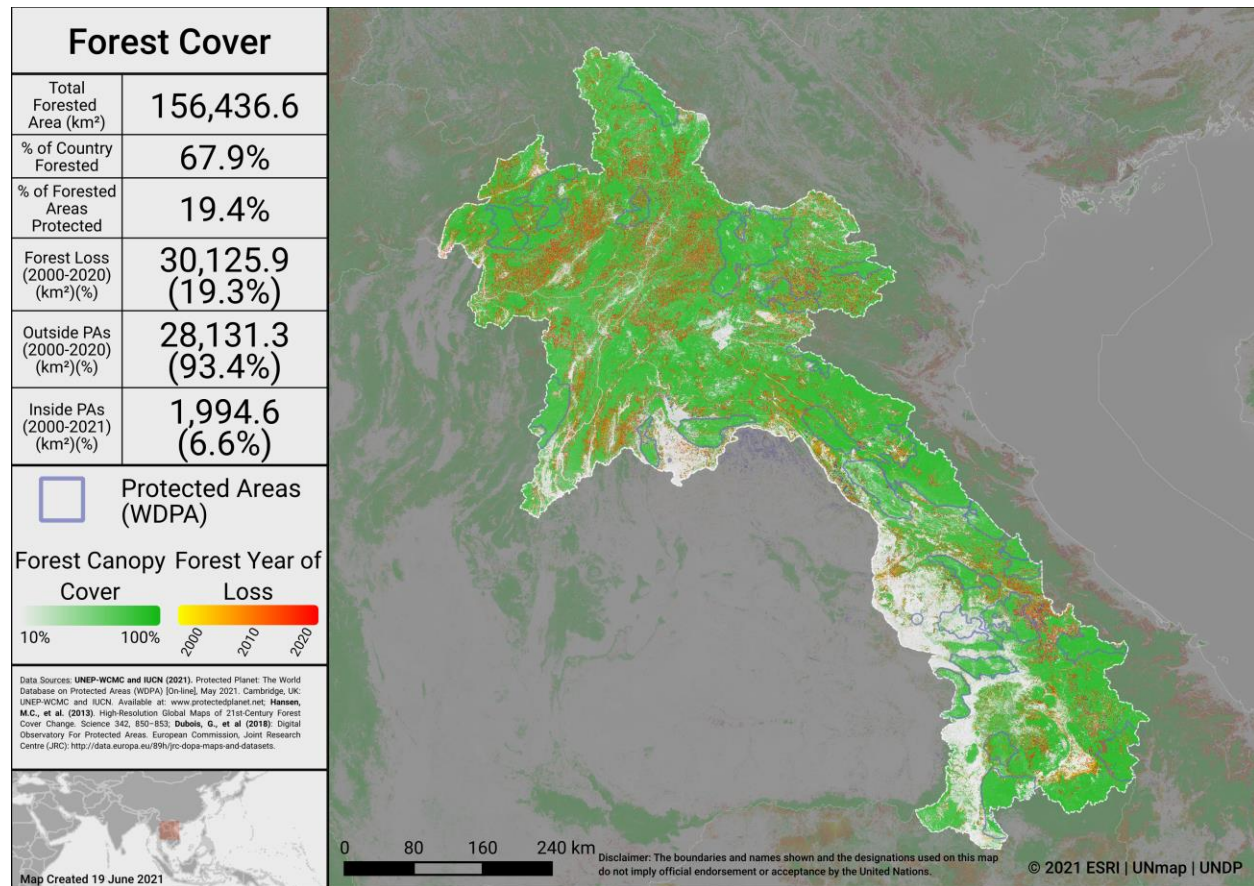
The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs.

As of May 2021, there are 0 OECMs in Lao People's Democratic Republic 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 Lao People's Democratic Republic cover approximately 67.9% of the country, an area of 156,436.6 km<sup>2</sup>. Approximately 19.4% (30,294.2 km<sup>2</sup>) of this is within the protected area estate of Lao People's Democratic Republic. Over the period 2000-2020 loss of forest cover amounted to over 30,125.9 km<sup>2</sup>, or 13.1% of the country (19.3% of forest area), of which 1,994.6 km<sup>2</sup> (6.6% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Lao People's Democratic Republic from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss





### Forest Cover and Forest Loss in Lao People's Democratic Republic

#### Opportunities for action

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

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

## SECTION II: EXISTING PROTECTED AREA AND OECD COMMITMENTS

### NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

Lao People’s Democratic Republic 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 1.2.2 - National wetlands strategy in place while management plans with substantive funding are implemented in at least 12 important wetlands sites.*

*Target 1.5.1 - Management plans and substantive funding are in place to enforce BD protection in at least 10 NPAs (from existing 2), 5 PPAs, 3 protection forests and 2 corridors.*

*Target 1.5.2 - Geographically contiguous village forestry sites are recognized /promoted to form an organic part of 2 BD corridors that would link critical fragmented habitats together.*

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

NBSAP Action number	Action (language from NBSAP)
1.2.2 (c)	Facilitation of cooperative agreements with neighbouring countries to more effectively conserves and manages fish resources in Mekong and other rivers
1.5.1 (a)	Participatory preparation and improvement of the PA management plans and protection forest management and corridor management plans
1.5.2	Development of geographic networks of at least 69 village forestry sites as part of BD corridor protection and sustainable use system.
1.5.1 (a)	Participatory preparation and improvement of the PA management plans and protection forest management and corridor management plans



## 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 (km <sup>2</sup> )	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4650	No	N/A	All Qualitative Elements
6940	Yes	2,223.8	Areas important for biodiversity; Ecosystem services; Effectively managed; Equitably managed

Based on spatial data available for GEF project 6940, benefits will arise for several elements of Target 11:

#### Coverage of Terrestrial Ecoregions:

- 3 Terrestrial Ecoregions will have improved coverage. These Ecoregions are: Central Indochina dry forests; Northern Annamites rain forests; Southern Annamites montane rain forests;
  - The average increase in coverage of Terrestrial Ecoregions will be 4.03%.

#### Coverage of KBAs:

- Coverage will improve for **3 KBAs**.

#### Ecosystem services:

- 0.24 % increase in the PA coverage of aboveground biomass.
- 0.15 % increase in the PA coverage of important aboveground biomass areas.
- 0.9 % increase in the PA coverage of soil organic carbon (SOC).
- 0.64 % 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
FP117	Mitigation	Forest and land use	Ecosystem services; Effectively managed Integration; Equitably managed

## OTHER ACTIONS/COMMITMENTS

Lao People's Democratic Republic's statement at the 2020 UN Biodiversity Summit mentions PAs, OECMs or corridors:

*The National protected Areas now cover 14.2% of the country's area, while the coverage of protected areas increases to around 20.2% if the provincial and district protected areas are included. Our government has been quick to realize the need to protect the country's biodiversity, including its iconic wildlife species. It has established a comprehensive National Protected Area system and enacted laws, decrees, directives, and regulations on the management of forests, aquatic, and wildlife resources across the country.*



## ANNEX I

### FULL LIST OF ECOREGIONS

Ecoregion Name	Area (km <sup>2</sup> )	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km <sup>2</sup> )	% Protected in Country
Central Indochina dry forests	30,414.4	9.5	13.2	4,914.1	16.2
Luang Prabang montane rain forests	50,966.0	71.2	22.1	4,990.9	9.8
Northern Annamites rain forests	35,207.8	74.8	15.3	12,636.4	35.9
Northern Indochina subtropical forests	70,611.8	16.2	30.6	12,964.8	18.4
Northern Khorat Plateau moist deciduous forests	5,559.3	33.1	2.4	44.7	0.8
Northern Thailand-Laos moist deciduous forests	11,574.5	27.6	5.0	42.2	0.4
Northern Vietnam lowland rain forests	73.3	0.3	0.0	11.2	15.3
Southeast Indochina dry evergreen forests	11,181.1	9.0	4.9	3,841.6	34.4
Southern Annamites montane rain forests	14,793.4	31.9	6.4	3,258.1	22.0



## REFERENCES

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- Atwood, TB, Witt, A, Mayorga, J, Hammill, E, & Sala, E. (2020). Global patterns in marine sediment carbon stocks. *Frontiers in Marine Science*.  
<https://doi.org/10.3389/fmars.2020.00165>
- BirdLife International (2021). World Database of Key Biodiversity Areas. Available at:  
<http://www.keybiodiversityareas.org>
- CBD (2010). Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting. Decision X/2. Strategic plan for biodiversity 2011–2020. Retrieved from <https://www.cbd.int/doc/decisions/cop-10/cop-10-dec02-en.pdf>.
- CSIRO (2019). Protected area connectedness index (PARCconnectedness).  
<https://www.bipindicators.net/indicators/protected-area-connectedness-index-parconnectedness>
- Dinerstein, E., et al. (2017). An ecoregion-based approach to protecting half the terrestrial realm. *BioScience* 67(6), 534-545.
- Donald et al., 2019, The prevalence, characteristics and effectiveness of Aichi Target 11's "other effective area-based conservation measures" (OECMs) in Key Biodiversity Areas. *Conservation Letters*, 12(5).
- EC-JRC (2021). DOPA Indicator factsheets: <http://dopa.jrc.ec.europa.eu/en/factsheets>
- FAO (2017). Global Soil Organic Carbon (GSOC) Map - Global Soil Partnership [WWW Document]. URL <http://www.fao.org/global-soil-partnership/pillars-action/4-information-and-data/global-soil-organic-carbon-gsoc-map/en/>.
- Franks, P and Booker, F (2018). Governance Assessment for Protected and Conserved Areas (GAPA): Early experience of a multi-stakeholder methodology for enhancing equity and effectiveness. IIED Working Paper, IIED, London. <https://pubs.iied.org/17632IIED>
- Franks, P. et al. (2018). Social Assessment for Protected and Conserved Areas (SAPA). Methodology manual for SAPA facilitators. Second edition. IIED, London.  
<https://pubs.iied.org/14659iied>
- Garnett et al. (2018). A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, 1(7), 369.
- Global Environment Facility (GEF-5 and GEF-6); all projects can be found online at:  
<https://www.thegef.org/projects>
- Gloss, L. et al. (2019). International Outlook for Privately Protected Areas: Summary Report. International Land Conservation Network (a project of the Lincoln Institute of Land Policy) and United Nations Development Programme. Summary report, and individual country profiles, available at: <https://nbsapforum.net/knowledge-base/resource/international-outlook-privately-protected-areas-summary-report>

Hansen, M.C., Potapov, P.V., Moore, R., Hancher, M., Turubanova, S.A., Tyukavina, A., Thau, D., Stehman, S.V., Goetz, S.J., Loveland, T.R., Kommareddy, A., Egorov, A., Chini, L., Justice, C.O., Townshend, J.R.G., (2013). High-Resolution Global Maps of 21st-Century Forest Cover Change. *Science* 342, 850–853. <https://doi.org/10.1126/science.1244693>

Hilty, J et al. (2020). Guidelines for conserving connectivity through ecological networks and corridors. Best Practice Protected Area Guidelines Series No. 30. Gland, Switzerland: IUCN. <https://portals.iucn.org/library/sites/library/files/documents/PAG-030-En.pdf>

IIED 2020. Site-level assessment of governance and equity (SAGE) <https://www.iied.org/site-level-assessment-governance-equity-sage>.

IUCN (2016). A Global Standard for the Identification of Key Biodiversity Areas, Version 1.0. First edition. Gland, Switzerland: IUCN. <https://portals.iucn.org/library/sites/library/files/documents/2016-048.pdf>

IUCN-WCPA (2017). IUCN-WCPA Task Force on OECMs collation of case studies submitted 2016-2017. <https://www.iucn.org/commissions/world-commission-protected-areas/our-work/oecms/oecm-reports>

Joint Research Centre of the European Commission (JRC) (2021), The Digital Observatory for Protected Areas (DOPA) Explorer 4.1 [On-line], [Apr/2021], Ispra, Italy. Available at: <http://dopa-explorer.jrc.ec.europa.eu>

Kothari, A., et al. (Eds) (2012). Recognising and Supporting Territories and Areas Conserved By Indigenous Peoples And Local Communities: Global Overview and National Case Studies. Secretariat of the CBD, ICCA Consortium, Kalpavriksh, and Natural Justice, Montreal, Canada. Technical Series no. 64.

Lausche, B., Laur, A., Collins, M. (2021). *Marine Connectivity Conservation 'Rules of Thumb' for MPA and MPA Network Design*. Version 1.0. IUCN WCPA Connectivity Conservation Specialist Group's Marine Connectivity Working Group.

McDonald, R.I., Weber, K., Padowski, J., Flörke, M., Schneider, C., Green, P.A., Gleeson, T., Eckman, S., Lehner, B., Balk, D., Boucher, T., Grill, G., Montgomery, M., (2014). Water on an urban planet: Urbanization and the reach of urban water infrastructure. *Global Environmental Change* 27, 96–105. <https://doi.org/10.1016/j.gloenvcha.2014.04.022>

National Biodiversity Strategy and Action Plan (NBSAPs); most recent NBSAP is available at: <https://www.cbd.int/nbsap/search/>

Newbold, T., Hudson, L.N., Arnell, A.P., Contu, S., Palma, A.D., Ferrier, S., Hill, S.L.L., Hoskins, A.J., Lysenko, I., Phillips, H.R.P., Burton, V.J., Chng, C.W.T., Emerson, S., Gao, D., Pask-Hale, G., Hutton, J., Jung, M., Sanchez-Ortiz, K., Simmons, B.I., Whitmee, S., Zhang, H., Scharlemann, J.P.W., Purvis, A., (2016). Has land use pushed terrestrial biodiversity beyond the planetary boundary? A global assessment. *Science* 353, 288–291. <https://doi.org/10.1126/science.aaf2201>



Sala, E. et al. (2021). Protecting the global ocean for biodiversity, food and climate. *Nature*, 592(7854), 397-402. <https://doi.org/10.1038/s41586-021-03496-1>

Saura, S. et al. (2018). Protected area connectivity: Shortfalls in global targets and country-level priorities. *Biological Conservation*, 219, 53-67.

Saura, S. et al (2017). Protected areas in the world's ecoregions: How well connected are they? *Ecological Indicators*, 76, 144-158.

Spalding, M.D., et al. (2012). Pelagic provinces of the world: a biogeographic classification of the world's surface pelagic waters. *Ocean & Coastal Management* 60, 19–30.

Spalding, M.D., et al. (2007). Marine ecoregions of the world: a bioregionalization of coastal and shelf areas. *BioScience* 57(7): 573–583.

Spawn, S.A., Sullivan, C.C., Lark, T.J., Gibbs, H.K., (2020). Harmonized global maps of above and belowground biomass carbon density in the year 2010. *Scientific Data* 7, 112. <https://doi.org/10.1038/s41597-020-0444-4>

Stolton, S. et al. (2014). *The Futures of Privately Protected Areas*. Gland, Switzerland: IUCN.

UNEP-WCMC and IUCN (2021) *Protected Planet Report 2020*. UNEP-WCMC and IUCN: Cambridge UK; Gland, Switzerland.

UNEP-WCMC and IUCN (2021), *Protected Planet: The Global Database on Protected Area Management Effectiveness (GD-PAME)* [On-line], [May/2021], Cambridge, UK: UNEP-WCMC and IUCN. Available at: [www.protectedplanet.net](http://www.protectedplanet.net).

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](http://www.protectedplanet.net).

UNEP-WCMC and IUCN (2021), *Protected Planet: The World Database on Other Effective Area-based Conservation Measures (WD-OECM)* [On-line], [May/2021], Cambridge, UK: UNEP-WCMC and IUCN. Available at: [www.protectedplanet.net](http://www.protectedplanet.net).

UN Ocean Conference Voluntary Commitments, available at: <https://oceanconference.un.org/commitments/>

Williams, B.A., Venter, O., Allan, J.R., Atkinson, S.C., Rehbein, J.A., Ward, M., Marco, M.D., Grantham, H.S., Ervin, J., Goetz, S.J., Hansen, A.J., Jantz, P., Pillay, R., Rodríguez-Buriticá, S., Supples, C., Virnig, A.L.S., Watson, J.E.M., (2020). Change in Terrestrial Human Footprint Drives Continued Loss of Intact Ecosystems. *One Earth* 3, 371–382. <https://doi.org/10.1016/j.oneear.2020.08.009>

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For any questions please contact [support@unbiodiveristylab.org](mailto:support@unbiodiveristylab.org).

