



Convention on  
Biological Diversity



# Aichi Biodiversity Target 11 Country Dossier: SAMOA

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## GLOSSARY

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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
OECD	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-OECD	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.

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

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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 - Terrestrial & Marine

- **Status:** as of May 2021, terrestrial coverage in Samoa is 238 km<sup>2</sup> (8.2%) and marine coverage is 190.5 km<sup>2</sup> (0.1%).
- **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 addressing the elements in the following sections could be considered when planning new PAs or OECMs.

#### Ecological Representativeness— Terrestrial & Marine

- **Status:** Samoa contains 1 terrestrial ecoregion, 1 marine ecoregion, and 1 pelagic province: coverage by PAs and OECMs is 6.6% (terrestrial), 5.5% (marine), and <0.01% (pelagic).
- **Opportunities for action:** there is opportunity for Samoa to increase protection in terrestrial and marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs.

#### Areas Important for Biodiversity

- **Status:** Samoa has 8 Key Biodiversity Areas (KBAs): the mean coverage of KBAs by reported PAs and OECMs is 47.2%, while 2 KBAs have no coverage by reported PAs and OECMs.



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- **Opportunities for action:** there is opportunity for Samoa 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 Samoa, 9.0% of aboveground biomass carbon, 8.8% of belowground biomass carbon, 10.1% of soil organic carbon, 0.5% of carbon stored in marine sediments is covered by PAs and OECMs.
- **Opportunities for action:** for carbon, there is opportunity for Samoa to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.
- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

### Connectivity and Integration

- **Status:** coverage of protected-connected lands is 5.5%.
- **Opportunities for action:** there is opportunity for a general increase of PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.
- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

### Governance Diversity

- **Status:** the most common governance type(s) for reported PAs in Samoa is: 67.7% under IPLCs (65.7% Indigenous Peoples; 2% local communities).
- **Opportunities for action:** increase efforts to identify the governance types for the 6.1% of sites that do not have their governance type reported.
- There is also opportunity for Samoa 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 and 0.0% 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

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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 Samoa. Section I of the dossier presents data on the current status of Samoa’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 Samoa, in relation to each Target 11 element. The analyses present options for improving Samoa’s area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Samoa’s existing PA and OECMs commitments as a summary of existing efforts towards achieving Target 11. This gives focus not only to national policy and actions but also voluntary commitments to the UN. Furthermore, where data is



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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 - TERRESTRIAL & MARINE

As of May 2021, Samoa has **99** protected areas reported in the World Database on Protected Areas (WDPA). 4 PAs that are proposed (including 2 PAs that have no spatial boundary and no area listed in the WDPA), are not included in the following statistics (see details on UNWP-WCMC's methods for calculating PA and OECM coverage [here](#)).

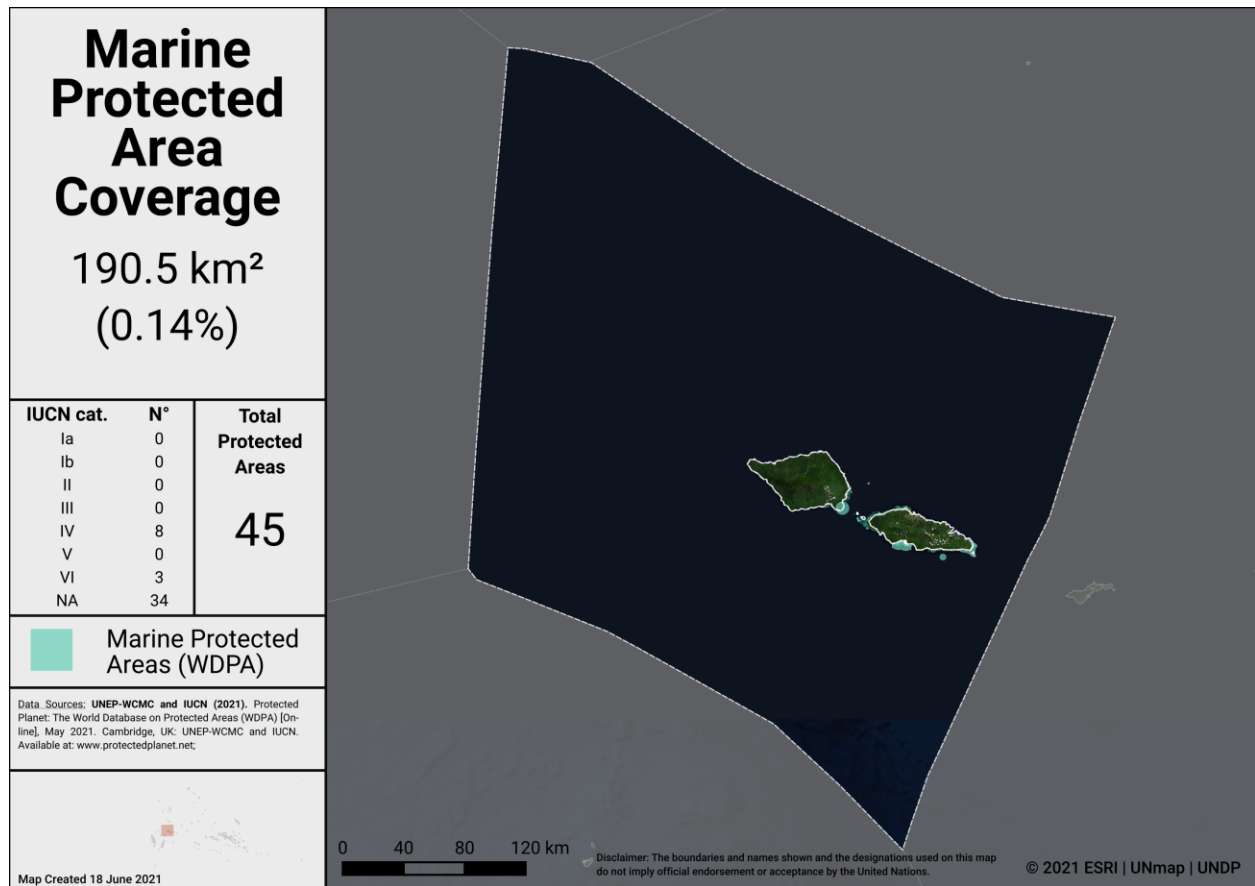
As of May 2021, Samoa has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for Samoa:

- 8.2% terrestrial (51 protected areas, 238 km<sup>2</sup>)
- 0.1% marine (45 protected areas, 190.5 km<sup>2</sup>)



Terrestrial Protected Areas in Samoa



Marine Protected Areas in Samoa

### Potential OECMs

There are currently no potential OECM examples for Samoa.

### 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 addressing the elements in the following sections could be considered when planning new PAs or OECMs.

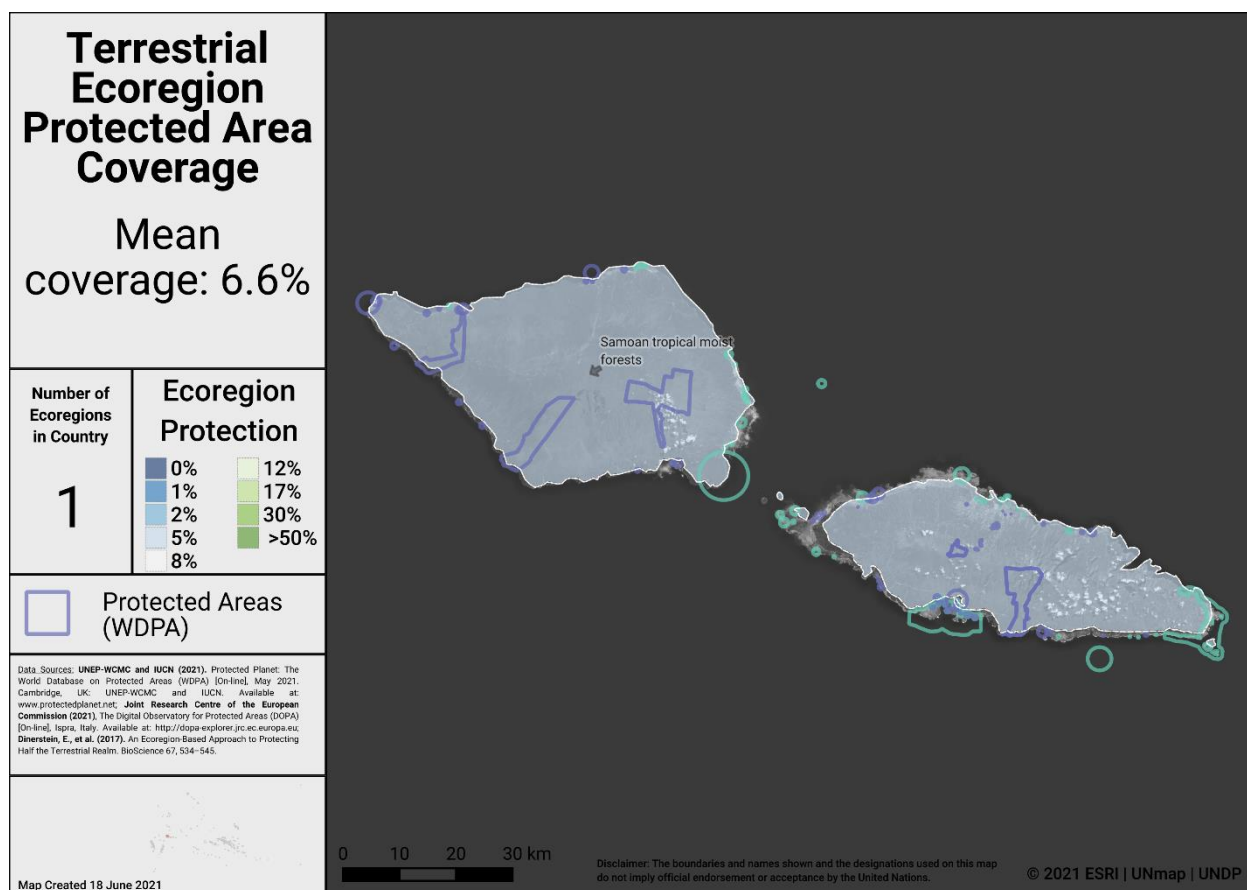
## ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL & MARINE

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).

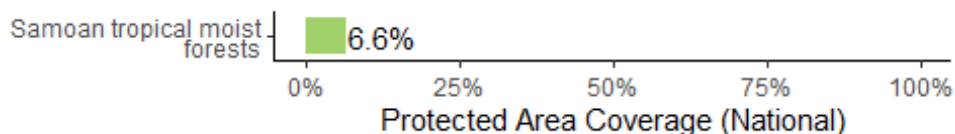
Samoa has 1 **terrestrial** ecoregion; coverage from reported PAs and OECMs is 6.6%.

Samoa has 1 **marine** ecoregion and 1 **pelagic province**:

- Coverage from PAs and OECMs is 5.5% (marine ecoregions) and <0.1% (pelagic province).

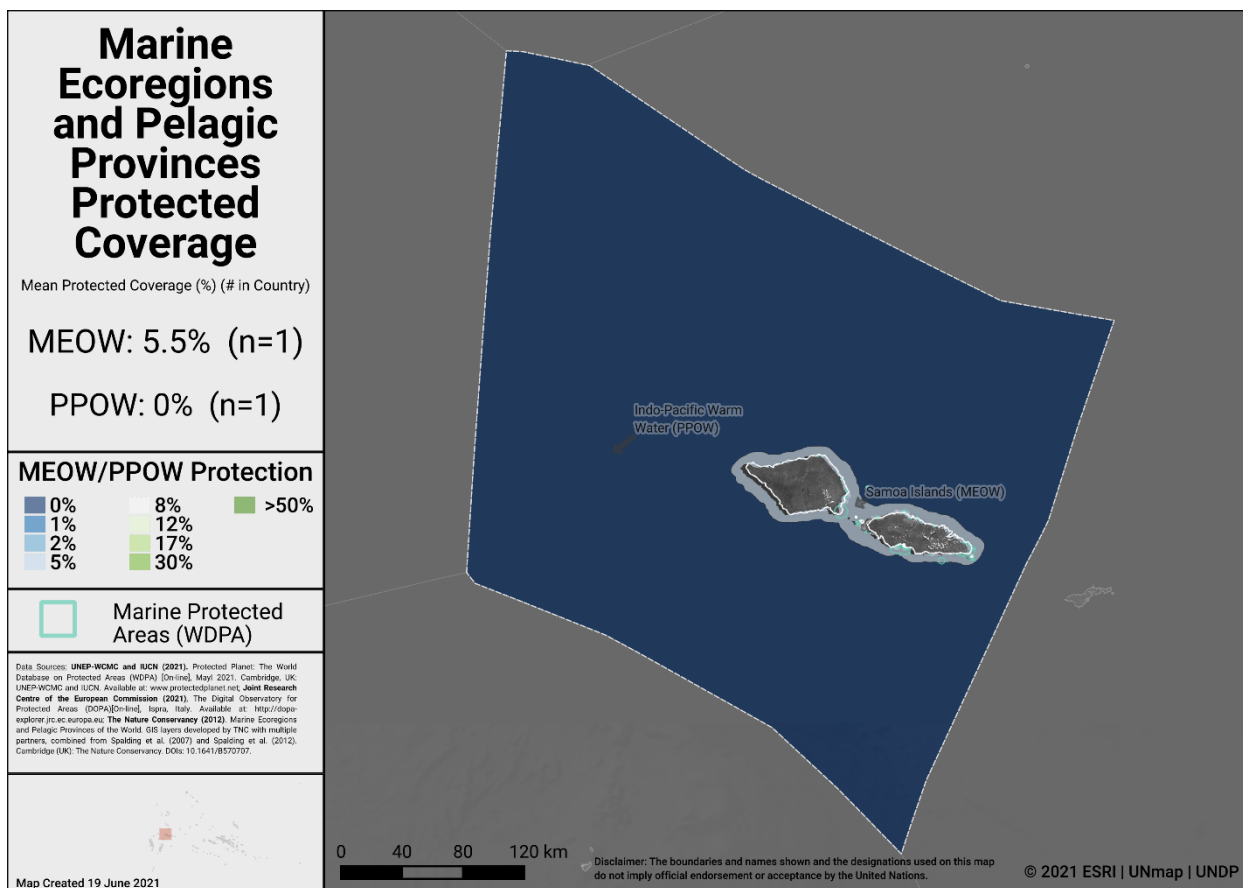


Terrestrial ecoregions in Samoa

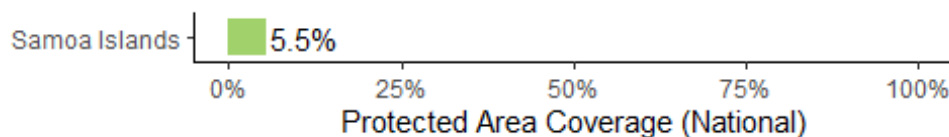


Terrestrial ecoregions of the World (TEOW) in Samoa

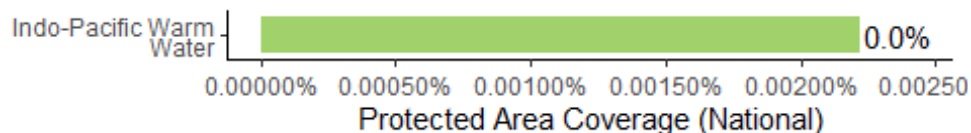




Marine ecoregions and pelagic provinces



Marine Ecoregions of the World (MEOW) in Samoa



Pelagic Provinces of the World (PPOW) in Samoa

Opportunities for action

There is opportunity for Samoa to increase protection in terrestrial and marine ecoregions and pelagic provinces 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).

Samoa has **8** Key Biodiversity Areas (KBAs).

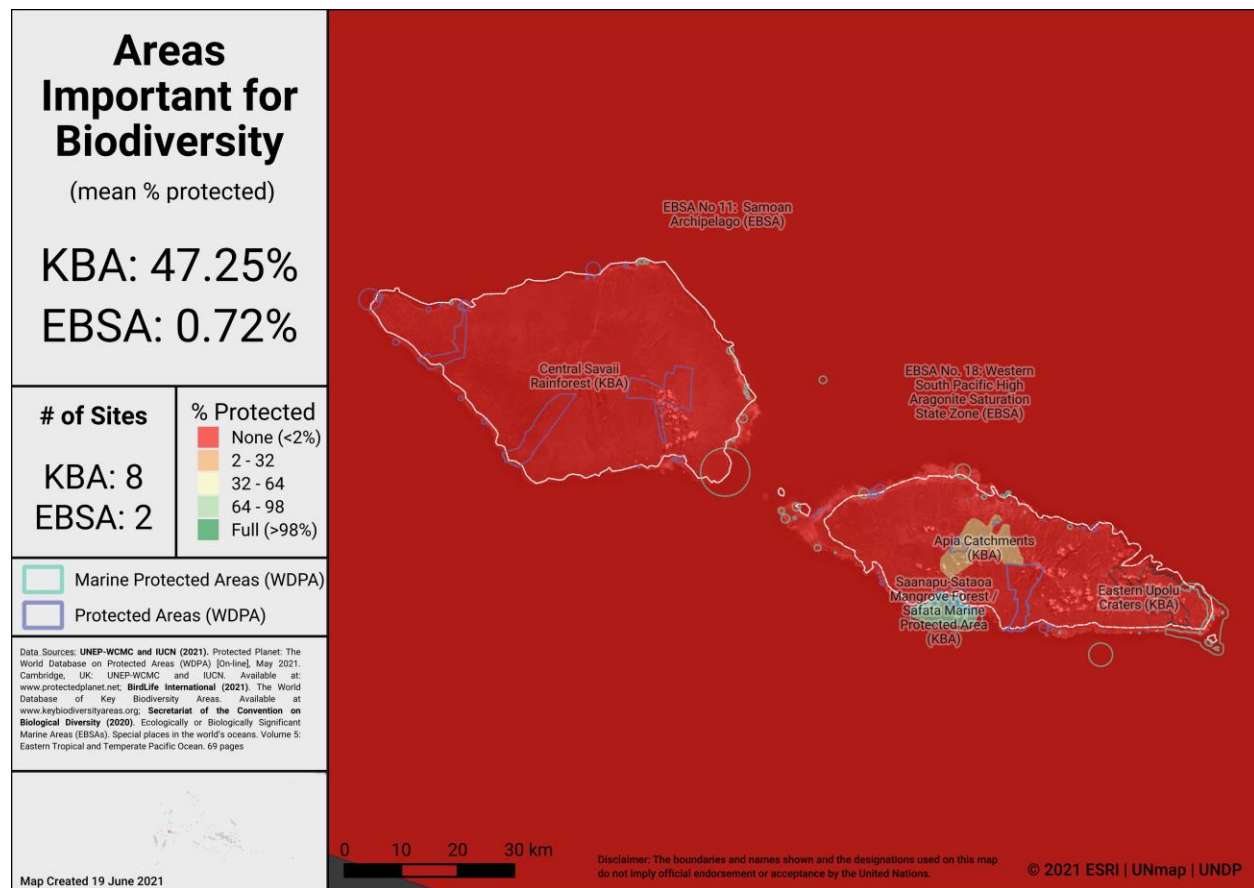
- Mean percent coverage of all KBAs by PAs and OECMs in Samoa is **47.2%**.
- **1** KBA has full (>98%) coverage by PAs and OECMs.
- **5** KBAs have partial coverage by PAs and OECMs.
- **2** KBAs have no (<2%) coverage by PAs and OECMs.

### Ecologically or Biologically Significant Marine Areas (EBSAs)

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

There are 2 EBSAs with some portion of their extent within Samoa's EEZ, both of which have ~1% coverage from PAs and OECMs.

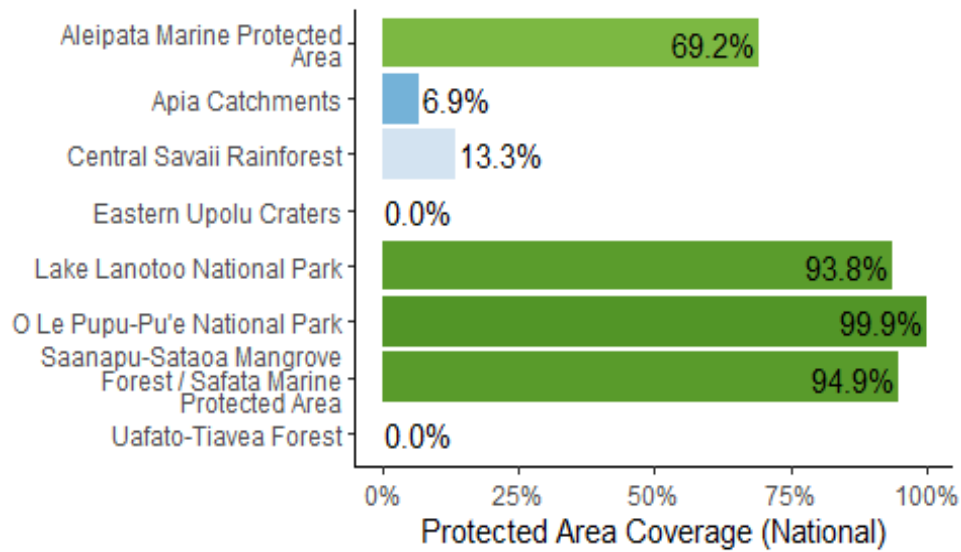




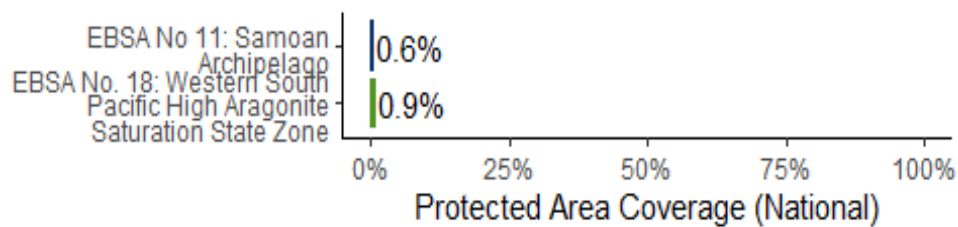
Areas Important for Biodiversity in Samoa



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Key Biodiversity Area Coverage (KBA) in Samoa



Ecologically or Biologically Significant Marine Areas (EBSAs) in Samoa

### Opportunities for action

There is opportunity for Samoa 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.

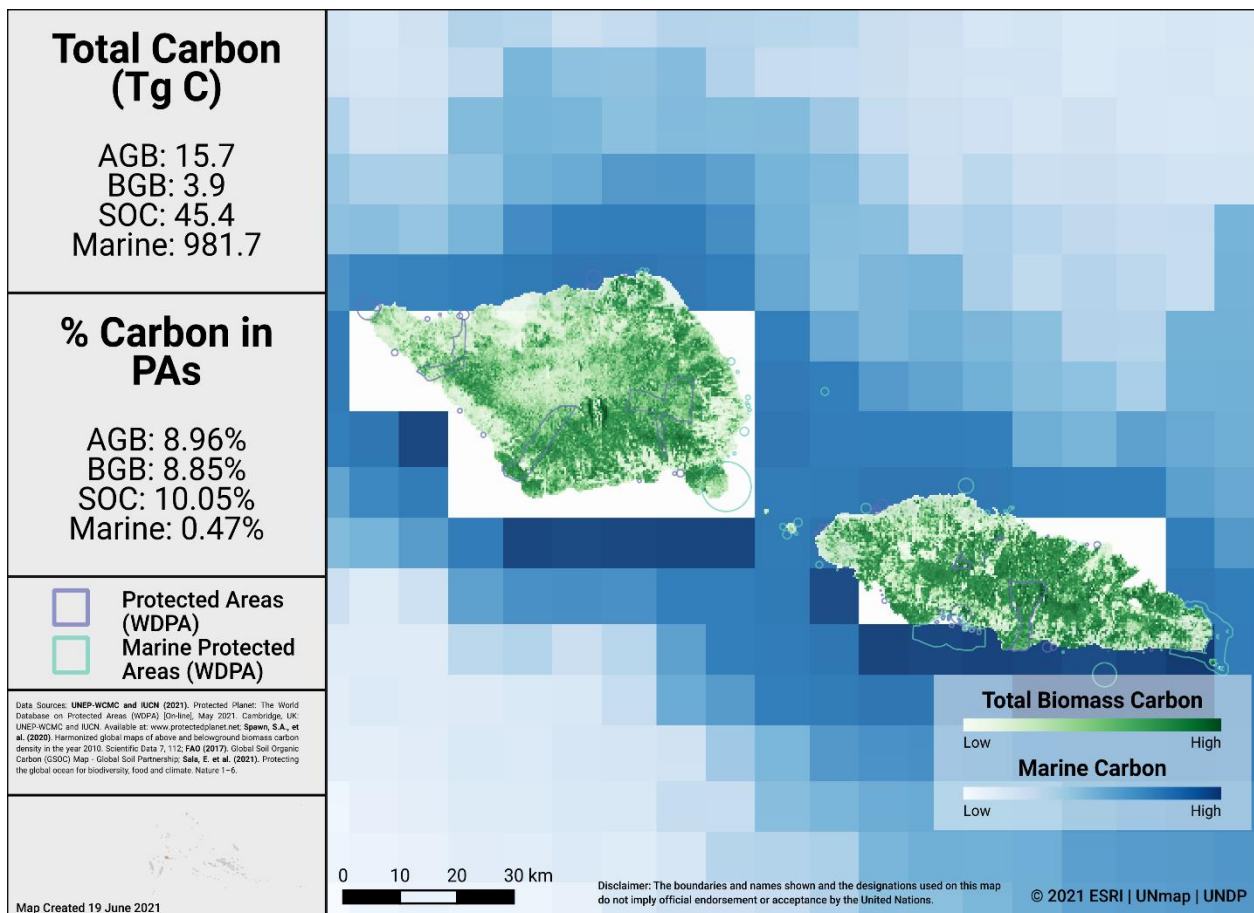
## AREAS IMPORTANT FOR ECOSYSTEM SERVICES

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 Samoa and the percent of carbon in protected areas. The total carbon stocks is 15.7 Tg C from aboveground biomass (AGB), with 9.0% in protected areas; 3.9 Tg C from below ground biomass (BGB), with 8.8% in protected areas; 45.4 Tg C from soil organic carbon (SOC), with 10.1% in protected areas; and 981.7 Tg C from marine sediment carbon, with 0.5% in protected areas.



Carbon Stocks in Samoa

### Water

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

Drinking water supplies for cities in Samoa may similarly depend on protected forest areas within and around water catchments. Intact catchments can support more consistent water supply and improved water quality.

### Opportunities for action

For carbon, there is opportunity for Samoa to increase PA and OECM coverage in both marine and terrestrial areas with high carbon stocks, as identified in the map above. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

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





## CONNECTIVITY & INTEGRATION

Two global indicators, the Protected Connected land indicator (ProtConn; EC-JRC, 2021; Saura et al., 2018) and the PARC-Connectedness indicator (CSIRO, 2019), have been proposed for assessing the terrestrial connectivity of PA and OECM networks. To date there is no global indicator for assessing marine connectivity, though some recent developments include proposed guidance for the treatment of connectivity in the planning and management of MPAs (see Lausche et al., 2021).

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

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) in Samoa was 5.5%.

### PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Samoa is 0.24. This represents an increase from 0.23 in 2010.

### Corridor case studies

There are currently no corridor case studies available for Samoa (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 general increase of PAs or OECMs and to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

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





## GOVERNANCE DIVERSITY

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

As of May 2021, PAs in Samoa reported in the WDPA have the following governance types:

- 24.2% are governed by **governments**
  - 21.2% by federal or national ministry or agency
  - 3.0% by sub-national ministry or agency
  - 0.0% by government-delegated management
- 2.0% are under **shared** governance
  - 1.0 % by collaborative governance
  - 1.0% by joint governance
  - 0.0% by transboundary governance
- 0.0% are under **private** governance
- 67.7% are under **IPLC** governance
  - 65.7% by Indigenous Peoples
  - 2.0% by local communities
- 6.1% **do not** report a governance type

### OECMs

As of May 2021, there are **0** OECMs in Samoa 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 Samoa (see Gloss et al., 2019, and Stolton et al., 2014 for details).

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

From Kothari et al. (2012) potential ICCAs (or similar designation) in Samoa include:

- **82 CCAs** (total area covered is not known)
- **59 LMMAs** (locally managed marine areas) cover **120 km<sup>2</sup>**.
- Additional comments: A village may declare a tabu (close off part of the area in front of the village), but a cluster of villages may implement an LMMA through a joint management plan that enshrines the various tabus but also other rules (See Kothari et al., 2012 for further details).

### Other Indigenous lands

There is currently no data available on the total area of lands managed and/or controlled by Indigenous Peoples in Samoa (for details on analysis see Garnett et al., 2018).



### Opportunities for action

Increase efforts to identify the governance types for the 6.1% of sites that do not have their governance type reported.

There is also opportunity for Samoa 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).



## 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.

### Protected area management effectiveness (PAME) assessments

As of May 2021, Samoa has 99 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.
- 0.0% (0.0 km<sup>2</sup>) of the marine area of the country is covered by PAs with completed management effectiveness evaluations.
  - 0.0% 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 Samoa reported in the WD-OECM and no information available on the management effectiveness of potential OECMs.

### 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

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### 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 Pacific on achieving Aichi Biodiversity Targets 11 and 12 took place 11 - 13 July 2016 in Nadi, Fiji. 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:**

- 1) Endorses EMC Bill.
- 2) Obtain legal status for the PAs without legal status.
- 3) Establish Savaii upland as a protected area [**No area provided**].
- 4) Update the status of Protected Area network to include the Matautu district CCA and Taga Gataivai established under the FPAM project and Malololelei reserve.

#### **Ecological representation:**

- 1) Designate Savaii upland to be a protected area.
- 2) Strengthen community engagement in sustainable forest management.
- 3) Formulation of protected area management plans.

#### **Areas Important for biodiversity and ecosystem services:**

- 1) Rehabilitate river banks/riparian zones.
- 2) Take critical watershed areas (upstream) as reserves.
- 3) Continue and expand the current monitoring program for all perennial rivers and streams as well as groundwater resources as a priority activity.
- 4) Obtain legal status and framework for some KBA.

#### **Connectivity:**

- 1) Formulate management plans for all fisheries reserves.
- 2) Initiate collaborative management arrangement for fisheries reserves between villages.



- 3) Implement possible actions to ensure there are forest corridors available to sustain the population of Samoa's endangered birds.

**Management effectiveness:** Undertake management effectiveness assessment of protected areas under government.

**Governance and Equity:**

- 1) Undertake boundary surveys for government protected areas.
- 2) Undertake assessment of equity and effectiveness of governance.
- 3) Encourage the establishment of CCA's following the process enacted under the EMC Bill.
- 4) Formulate management plans for interested communities.

**Integration:**

- 1) Formulate management for SUF (Savaii Upland Forest).
- 2) Develop regulation under EMC Bill for SUF.

**OECMs:**

- 1) Formulate and implement management plans (these will be formulated under SGP of UNDP and other projects).
- 2) Develop a tentative list of critical and or vulnerable/threatened ecosystems using international/national criteria.



## NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

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

*Target 11: By 2020, at least 17 percent of terrestrial and inland water, and 10 percent 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 landscape and seascapes.*

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

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **NO**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **254 km<sup>2</sup>**.

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

- As of May 2021 (based on the WDPA/WD-OECM) has the target been met: **NO**
- Accounting for other projects, actions and commitments, if this target is met, coverage in the country will increase by **13,040 km<sup>2</sup>**.

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

NBSAP Action number	Action (original language from NBSAP)
2.1.1	Assess the current conditions of all natural habitats as a baseline for measuring the rate of loss and/or degradation
2.1.2	Develop new and/or strengthen existing guidelines to control and monitor the use of resources within natural habitats
2.1.3	Strengthen monitoring and effectively enforce processes to properly screen and minimize the negative impacts of development activities on natural habitats
2.1.3	Strengthen monitoring and effectively enforce processes to properly screen and minimize the negative impacts of development activities on natural habitats
3.1.1	Encourage and support the establishment of new terrestrial and marine PA's, CCAs, and MPAs
3.1.2	Acquire legal status for at least 50% of all existing and proposed terrestrial and marine protected areas





<b>NBSAP Action number</b>	<b>Action (original language from NBSAP)</b>
3.1.3	Conduct ecological/biodiversity studies and surveys for new identified terrestrial and marine PA's
3.2.1	Conduct biological surveys in areas that were not surveyed as part of the 2013 BioRAP
4.2.1	Implement climate proofing projects including those promoting climate change resilience building in all sectors
4.2.3	Implement soft option to enhance climate change adaptation and mitigation objectives including trees and coral replanting schemes for degraded forests, mangroves, and coral reefs.

## APPROVED GCF PROTECTED AREA PROJECTS

### 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.

<b>GCF ID</b>	<b>Project theme</b>	<b>Result area</b>	<b>Target 11 element</b>
FP037	Adaptation	Ecosystems and ecosystem services	Integration



## UN OCEAN CONFERENCE VOLUNTARY COMMITMENTS

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

### Ocean Actions improving MPA or OECM coverage:

*#OceanAction16498*: Enhancing the protection, conservation and management of sharks, whales, dolphins and turtles in Samoa's Exclusive Economic Zone, by Ministry of Natural Resources and Environment (Government).

- Area to be added: **No area given.**
- Notes: Samoa is still in negotiation with neighbouring countries to finalize their EEZ boundaries, only then will the total area covered by the marine sanctuary be officially confirmed.
- Progress report: No progress report submitted (as of March 2021).
- Further details available at:  
<https://oceanconference.un.org/commitments/?id=16498>.

*#OceanAction16998*: Marine Protected Areas (MPAs) and SAMOA Marine Sanctuary, by Ministry of Natural Resources and 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=16998>.

### Other Ocean Actions

Other Ocean Actions submitted as voluntary commitments for SDG 14.5, will also create benefits for the qualifying elements of Aichi Biodiversity Target 11:

*#OceanAction18298*: Samoa's Community-based Fisheries Management Programme, by Ministry of Agriculture (Government).

- Types of actions involved: MPA management and/or enforcement; community-based management; community consultation; food security and livelihoods.
- Target 11 elements addressed: Effectively managed; Equitably managed; Ecosystem services.
- Progress report: No progress report submitted (as of May 2021).
- Further details available at:  
<https://oceanconference.un.org/commitments/?id=18298>



*#OceanAction18433*: Effective implementation of Monitoring, Control, Surveillance and Enforcement programmes for Samoa's fishery waters, by Ministry of Agriculture and Fisheries (Government).

- Types of actions involved: MPA management and/or enforcement; vessel monitoring system (VMS); deter, prevent and eliminate illegal unreported and unregulated fishing activities.
- Target 11 element addressed: Effectively managed.
- Progress report: Yes (Oct 2018); Overall status = On track.
- Further details available at:  
<https://oceanconference.un.org/commitments/?id=18433>



## OTHER ACTIONS/COMMITMENTS

### Commitments for PAs and OECMs from Other National Policies

Policy document	Ecosystem	Policy text
National Disaster Management Plan	Forest ecosystems	Promote the sustainable harvesting of trees for firewood
Strategy for the Development of the Samoa	Forest ecosystems	Increase areas of protected forests sites
Strategy for the Development of the Samoa	Forest ecosystems	Increase number of protected key habitats and “at risk” species
Strategy for the Development of the Samoa	Coastal ecosystems	Increase areas of protected marine sites
Strategy for the Development of the Samoa	Coastal ecosystems	Increase number of protected key habitats and “at risk” species
National Biodiversity Strategy Action Plan	Forest ecosystems	At least halve and where feasible bring close to zero the rate of loss of all natural habitats, including forests by 2020 and significantly reduce degradation and fragmentation
National Adaptation Program of Action	Wetland ecosystems	Alternative water supply and storage programs
National Biodiversity Strategy Action Plan	Wetland ecosystems	Reduce loss of mangrove and wetland forests from land reclamation, logging and waste disposal
National Adaptation Program of Action	Coastal ecosystems	Coastal Infrastructure Protection measures
National Biodiversity Strategy Action Plan	Coastal ecosystems	Minimize coastal pollution from unsound waste disposal practices, and unsustainable agricultural practices
National Biodiversity Strategy Action Plan	Coastal ecosystems	Reduce loss of mangrove and wetland forests from land reclamation, logging and waste disposal
National Biodiversity Strategy Action Plan	Coastal ecosystems	Effectively enforce the protection of river bank reserves for catchment purposes and to minimize coastal pollution

Policy document	Ecosystem	Policy text
National Biodiversity Strategy Action Plan	Grasslands & Agricultural systems	Support and encourage the development of woodlots and agroforestry systems with management plans, seedlings, and marketing information for five years
National Biodiversity Strategy Action Plan	Grasslands & Agricultural systems	Facilitate the ex situ conservation of rare and threatened native agrobiodiversity





## 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-parcconnectedness>
- 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.

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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