



Convention on
Biological Diversity



Aichi Biodiversity Target 11 Country Dossier: TRINIDAD AND TOBAGO

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GLOSSARY

AZEs	Alliance for Zero Extinction sites
CEPF	Critical Ecosystem Partnership Fund
EBSA	Ecologically or Biologically Significant Marine Area
EEZ	Exclusive Economic Zone
GCF	Green Climate Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
IBA	Important Bird and Biodiversity Area
ICCAs	Indigenous and Community Conserved Area Area (may also be referred to as territories and areas conserved by Indigenous peoples and local communities or “territories of life”)
IPLC	Indigenous Peoples and Local Communities
KBA	Key Biodiversity Area
MEOW	Marine Ecosystems of the World
MPA	Marine Protected Area
NBSAP	National Biodiversity Strategy and Action Plan
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.

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EXECUTIVE SUMMARY

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

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

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

Coverage - Terrestrial & Marine

- **Status:** as of May 2021 (per the WDPA), terrestrial coverage in Trinidad and Tobago is 1,594.8 km² (30.6%) and marine coverage is 37.1 km² (0.05%); National reporting in estimates the total terrestrial area covered by PAs is **26.06%**, and marine protected area coverage at **0.14%**.
- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.

Ecological Representativeness— Terrestrial & Marine

- **Status:** Trinidad and Tobago contains 2 marine ecoregions and 1 pelagic province (the 3 globally identified terrestrial ecoregions do not accurately represent the diversity of ecosystems in Trinidad and Tobago): the mean coverage by reported PAs and OECMs is 31.5% (terrestrial), 0.1% (marine), and 0.0% (pelagic); 1 marine ecoregion and 1 pelagic province have no coverage by reported PAs and OECMs.
- **Opportunities for action:** there is opportunity for Trinidad and Tobago to increase protection in marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs. Ecoregions which currently have no coverage by PAs or OECMs are key areas for action. For terrestrial areas, additional mapping of that can



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accurately represent the diversity of ecosystems in Trinidad and Tobago will be needed.

Areas Important for Biodiversity

- **Status:** in 2019, the government of Trinidad and Tobago approved a National Protected Areas Systems Plan, which will enable the protection of the country's biodiversity, to be consistent with national policies for forests, protected areas and wildlife.
- **Opportunities for action:** there is opportunity for the continued implementation of the National Protected Areas Systems Plan and the protection of national areas of importance for biodiversity.

Areas Important for Ecosystem Services

- **Status:** coverage of areas important for ecosystem services: In Trinidad and Tobago, 38.9% of aboveground biomass carbon, 37.9% of belowground biomass carbon, 31.3% of soil organic carbon, 0.6% of carbon stored in marine sediments is covered by PAs and OECMs.
- **Opportunities for action:** for carbon, there is opportunity for Trinidad and Tobago to increase PA and OECM coverage in marine areas with high carbon stock, and to focus on effective management for terrestrial PAs 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 25.9%.
- **Opportunities for action:** there is opportunity to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.
- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

Governance Diversity

- **Status:** All protected areas in Trinidad and Tobago are governed by the government; although governance type is not reported for any of the sites currently reported in the WDPA.



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- **Opportunities for action:** increase efforts to report the governance types for the 100.0% of sites that do not have their governance type listed in the WDPA. If applicable, explore opportunities for governance types that have lower representation.
- There is also opportunity for Trinidad and Tobago 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 in the GD-PAME. However, under the Improving Forest and Protected Area Management in Trinidad and Tobago Project, management plans were developed for six pilot protected areas, in addition to the National Protected Areas Systems.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs and **has not** been met for marine PAs. Therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for both terrestrial and marine PAs to achieve the target.
- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g., through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.



INTRODUCTION

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

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

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

This dossier provides an overview of area-based conservation in Trinidad and Tobago. Section I of the dossier presents data on the current status of Trinidad and Tobago’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 Trinidad and Tobago, in relation to each Target 11 element. The analyses present options for improving Trinidad and Tobago’s area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Trinidad and Tobago’s existing PAs and OECM commitments as a summary of existing efforts towards achieving Target 11. This gives focus not only to national policy

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and actions but also voluntary commitments to the UN. Furthermore, where data is available, this dossier provides information on potential OECMs, Indigenous and Community Conserved Areas (ICCAs; also often referred to as territories and areas conserved by Indigenous peoples and local communities or “territories of life”) and Privately Protected Areas (PPAs) and the potential contribution they will have in achieving the post-2020 targets.

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

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

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

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



SECTION I: CURRENT STATUS

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



COVERAGE - TERRESTRIAL & MARINE

As of May 2021, Trinidad and Tobago has **44** protected areas reported in the World Database on Protected Areas (WDPA).

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

Current coverage for Trinidad and Tobago (per the WDPA):

- 30.6% terrestrial (43 protected areas, 1,594.8 km²)
- 0.0% marine (2 protected areas, 37.1 km²)

National reporting in Trinidad and Tobago indicates:¹

- the total terrestrial area covered by PAs is **26.06%**.
- marine protected area coverage is estimated at **0.14%**.

Omissions (in the current WDPA listings for Trinidad and Tobago) include the Main Ridge Forest Reserve in Tobago, which comprises 3,937 ha and is currently the oldest forest reserve in the western hemisphere, having been set aside in 1776. Additionally, the North-East Tobago Biosphere Reserve was designated in 2020.²

In Trinidad and Tobago, current PAs consist of **36** Forest Reserves, **13** Game Sanctuaries, **11** Prohibited Areas and **3** Environmentally Sensitive Areas. This totals 1,336.31 km² (~26.06% of Trinidad and Tobago landmass). These areas are managed by the Tobago House of Assembly, Environmental Management Authority, and the Forestry Division. Therefore, approximately 26.06% of Trinidad and Tobago land mass can be considered as terrestrial and inland waters that are under management. According to the 2019 National Protected Areas System Plan, the number of terrestrial/freshwater PAs is planned to increase to 92 (79 in Trinidad and 13 in Tobago). In total, approximately 1,933 km² (1,866 km² in Trinidad, 67 km² in Tobago) of the country's land mass is proposed to be terrestrial/freshwater PAs. This is approximately 37.1% of Trinidad and Tobago landmass. No action has however been taken to implement the National Protected Areas System Plan to date.

Due to the various types of PAs and the overlap between and multiple designations of some of them, in addition to PAs being managed/protected under different pieces of legislation, this estimation has become difficult, and efforts are underway to clarify this. When more information becomes available, it will be shared.

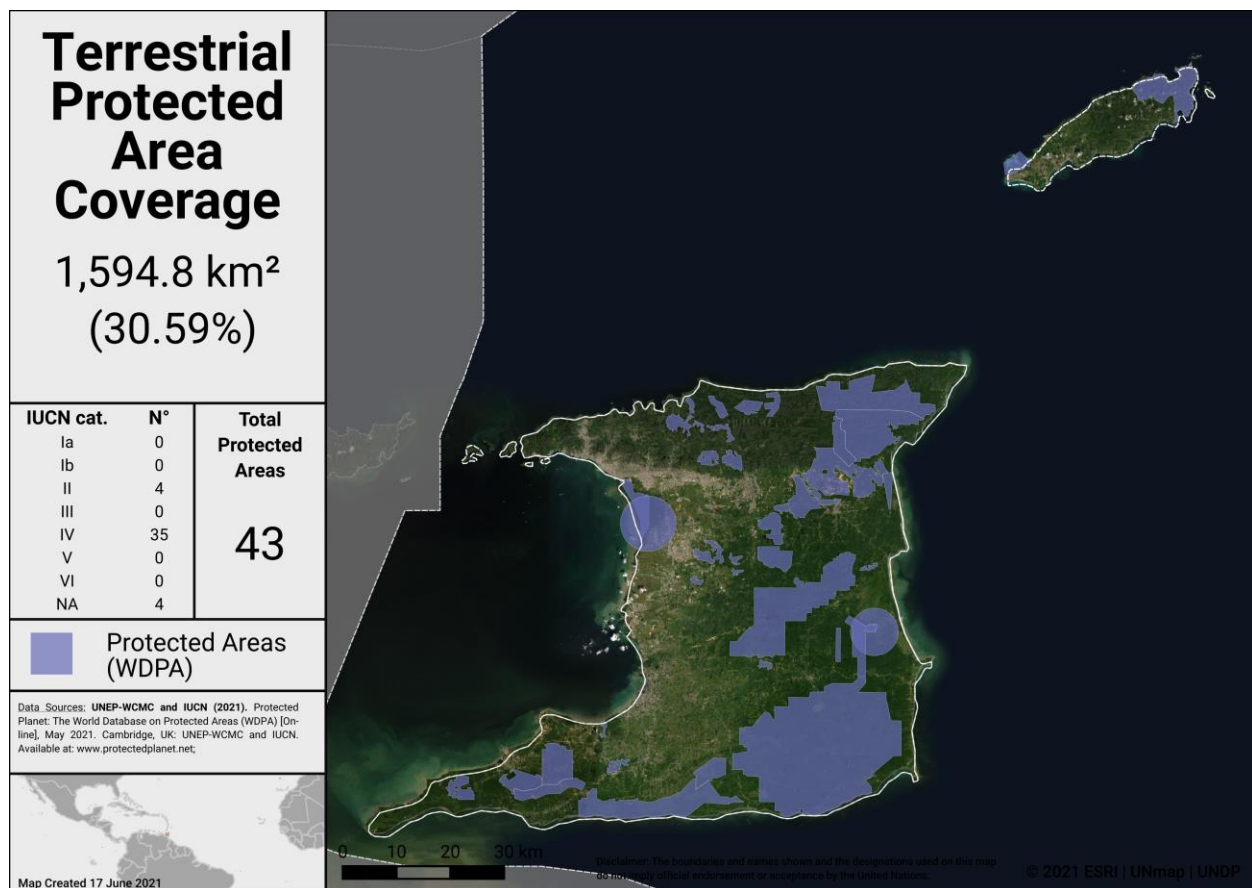
The only marine area under the current PA system is the Buccoo Reef/ Bon Accord Lagoon Buccoo Reef complex. This total 7 km² (~0.14% of the land mass of Trinidad and Tobago).

¹ See further details in Trinidad and Tobago's *National Protected Area Systems Plan* (FAO, 2018).

² See: <https://en.unesco.org/biosphere/lac/northeast-tobago>

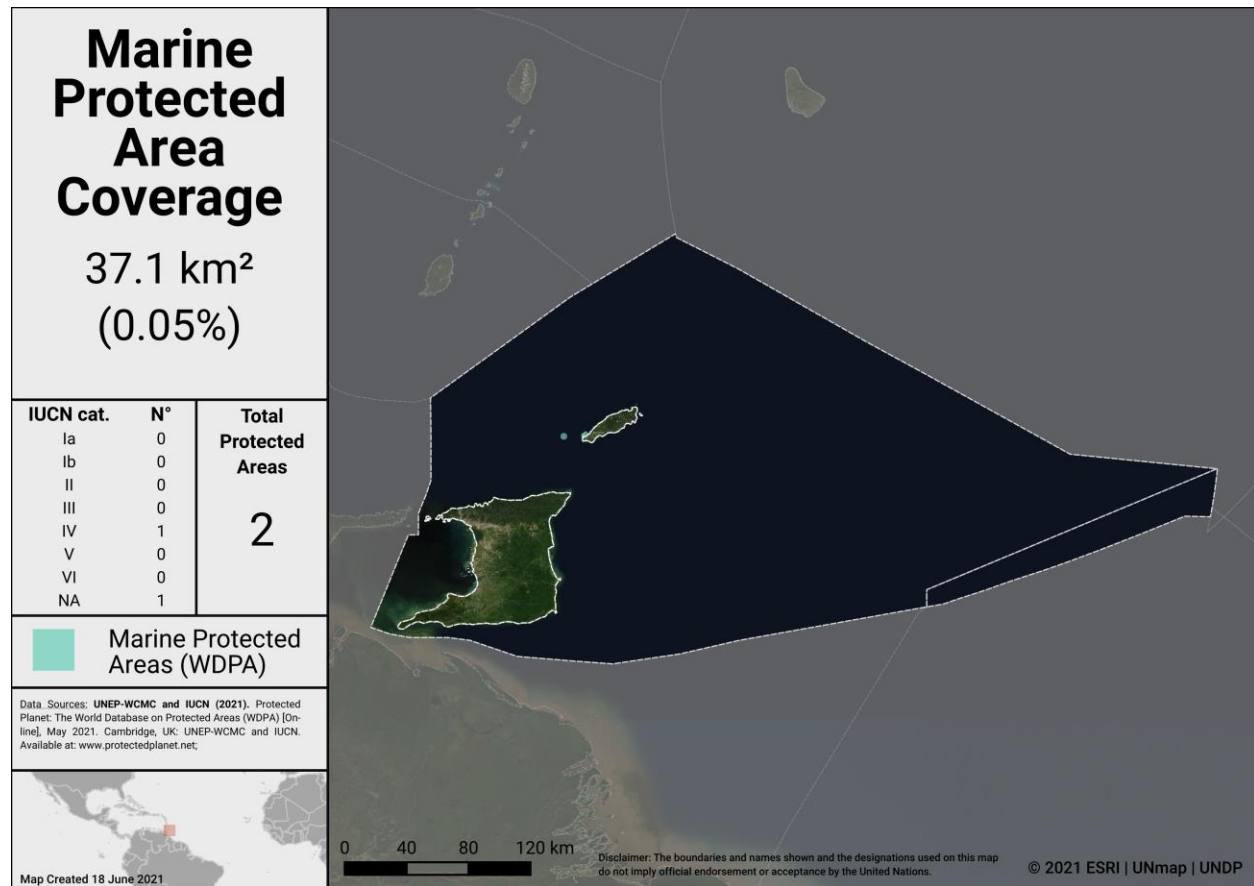
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This area is managed by Tobago House of Assembly. So therefore approximately 0.14% of Trinidad and Tobago land mass are considered to be marine areas under management. According, to the 2019 National Protected Areas System Plan the total number of marine PAs is planned to increase to 40 (18 in Trinidad, 22 in Tobago), 4 of which are deep-seas marine areas. The proposed coastal and marine protected areas is approximate 580 km² (14 km² in Trinidad and 566 km² in Tobago). The proposed open-ocean waters and deep-sea marine areas cover 15,600 km². No action has however been taken to implement the National Protected Areas System Plan to date.³



Terrestrial Protected Areas in Trinidad and Tobago (per the May 2021 WDPA). Reported coverage in Trinidad and Tobago is estimated at 26.06%.

³ Additional information here: <https://www.cbd.int/doc/meetings/mar/rwebsa-wcar-01/other/rwebsa-wcar-01-ima-03-en.pdf>



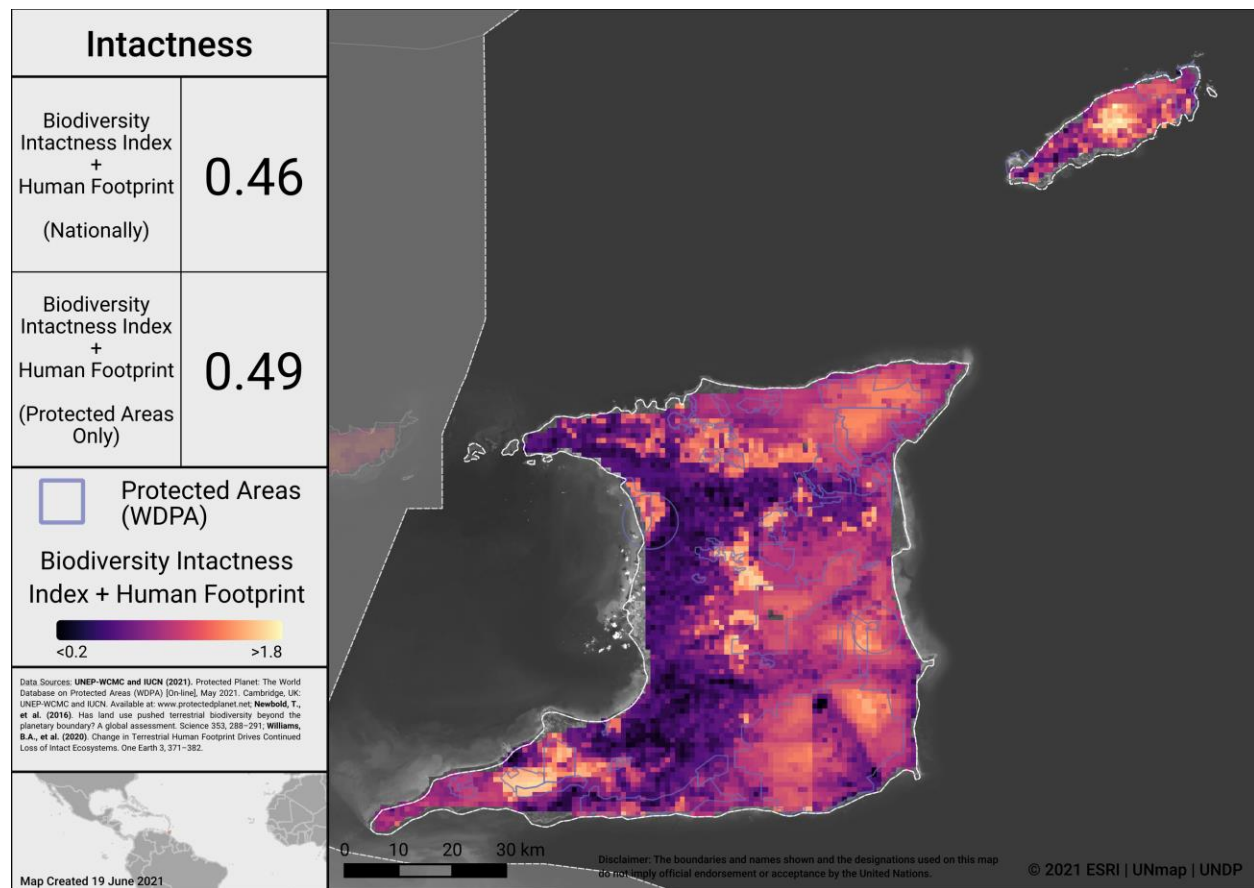
Marine Protected Areas in Trinidad and Tobago (per the May 2021 WDPA). Reported coverage in Trinidad and Tobago is estimated at 0.14%.

Potential OECMs

One potential OECM in Trinidad and Tobago is the *Asa Wright Nature Centre*. Some private lands are managed as conservation areas, for example those belonging to the Asa Wright Nature Centre, which comprises approximately 1,500 acres. More information is available at: <https://asawright.org/about-the-centre/>

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



Intactness in Trinidad and Tobago

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

ECOLOGICAL REPRESENTATIVENESS – TERRESTRIAL & MARINE

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

Trinidad and Tobago has 3 **terrestrial** ecoregions. Out of these:

- All 3 ecoregions have at least some coverage from PAs and OECMs.
- 2 ecoregions have at least 17% protected within the country.
- The average coverage of terrestrial ecoregions is 31.5%.

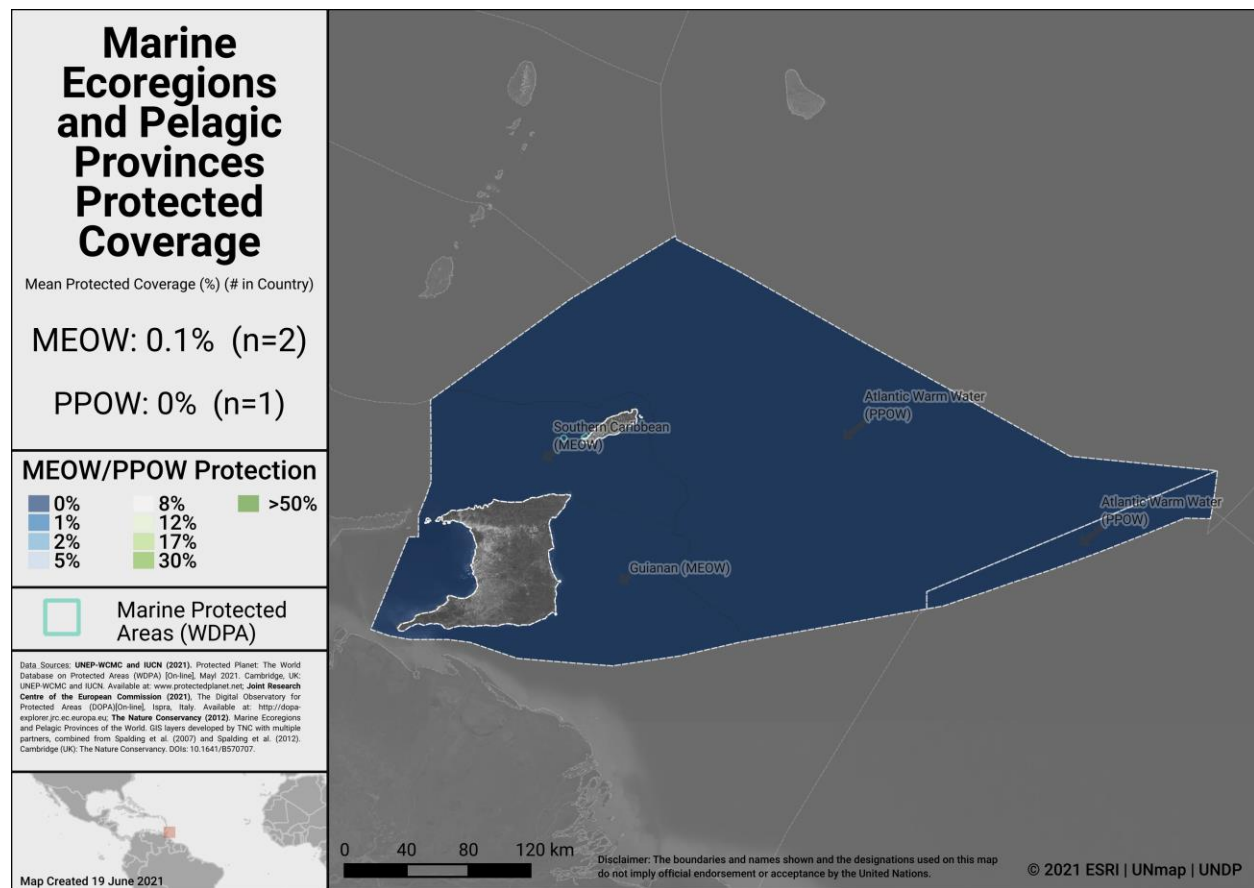
A full list of terrestrial ecoregions in Trinidad and Tobago is available in Annex I.

Trinidad and Tobago notes that: While we understand that particular global criteria was used for this, the three ecoregions identified do not accurately represent the diversity of ecosystems in Trinidad and Tobago. More relevant examples could include tropical forest types or forest tree communities (e.g., Helmer et al., 2012), or could be based on other plant species records (see: <https://herbaria.plants.ox.ac.uk/bol/trin/explore>)

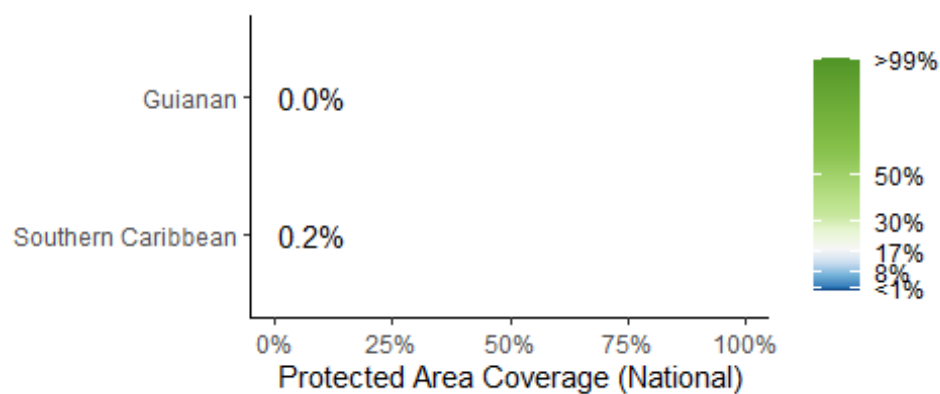
Trinidad and Tobago has 2 **marine** ecoregions and 1 **pelagic province**. Out of these:

- 1 marine ecoregion and 0 pelagic provinces have at least some coverage from reported PAs and OECMs.
- 0 marine ecoregions and 0 pelagic provinces have at least 10% protected within Trinidad and Tobago's exclusive economic zone (EEZ).
- The average coverage of marine ecoregions is 0.1% and the coverage of the 1 pelagic province is 0.0%.

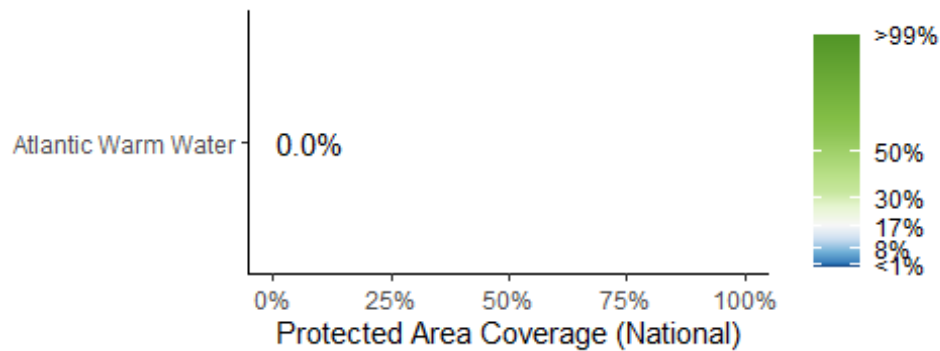




Marine ecoregions and pelagic provinces



Marine Ecoregions of the World (MEOW) in Trinidad and Tobago



Pelagic Provinces of the World (PPOW) in Trinidad and Tobago:

Opportunities for action

There is opportunity for Trinidad and Tobago to increase protection in marine ecoregions and pelagic provinces that have lower levels of coverage by PAs or OECMs. Ecoregions which currently have no coverage by PAs or OECMs are key areas for action. For terrestrial areas, additional mapping of that can accurately represent the diversity of ecosystems in Trinidad and Tobago will be needed.

AREAS IMPORTANT FOR BIODIVERSITY

Trinidad and Tobago notes that: While we again understand that international criteria were used to determine KBAs (Key Biodiversity Areas), it is not representative of areas that are important to biodiversity due to the diversity of ecosystems represented nationally. For example, the Nariva Swamp (a RAMSAR site), the pitch lake, the Aripo Savanna, mud volcanoes and almost all of the marine areas, inclusive of reefs and seagrass beds, have been excluded in this document, as well as the vast majority of other forest types.

Further to this, in 2019, the government of Trinidad and Tobago approved a National Protected Areas Systems Plan, proposing the establishment of close to 20,000 km² of protected land and marine space in Trinidad and Tobago.

The goal of the Plan is to identify areas within the national jurisdiction of Trinidad and Tobago which can enable the protection of the country's biodiversity, to be consistent with national policies for forests, protected areas and wildlife. The new Plan proposes the establishment of 136 Protected Areas. Of these, 92 are terrestrial/freshwater (79 in Trinidad and 13 in Tobago), 40 are coastal/marine (18 in Trinidad, 22 in Tobago) and 4 are deep-seas marine areas. In total, approximately 1,933 km² (1,866 km² in Trinidad, 67 km² in Tobago) of the country's land mass is proposed to be terrestrial/freshwater protected areas. The proposed coastal and marine protected areas approximate to 580 km² (14 km² in Trinidad and 566 km² in Tobago). The proposed open-ocean waters and deep-sea marine areas cover 15,600 km².

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.

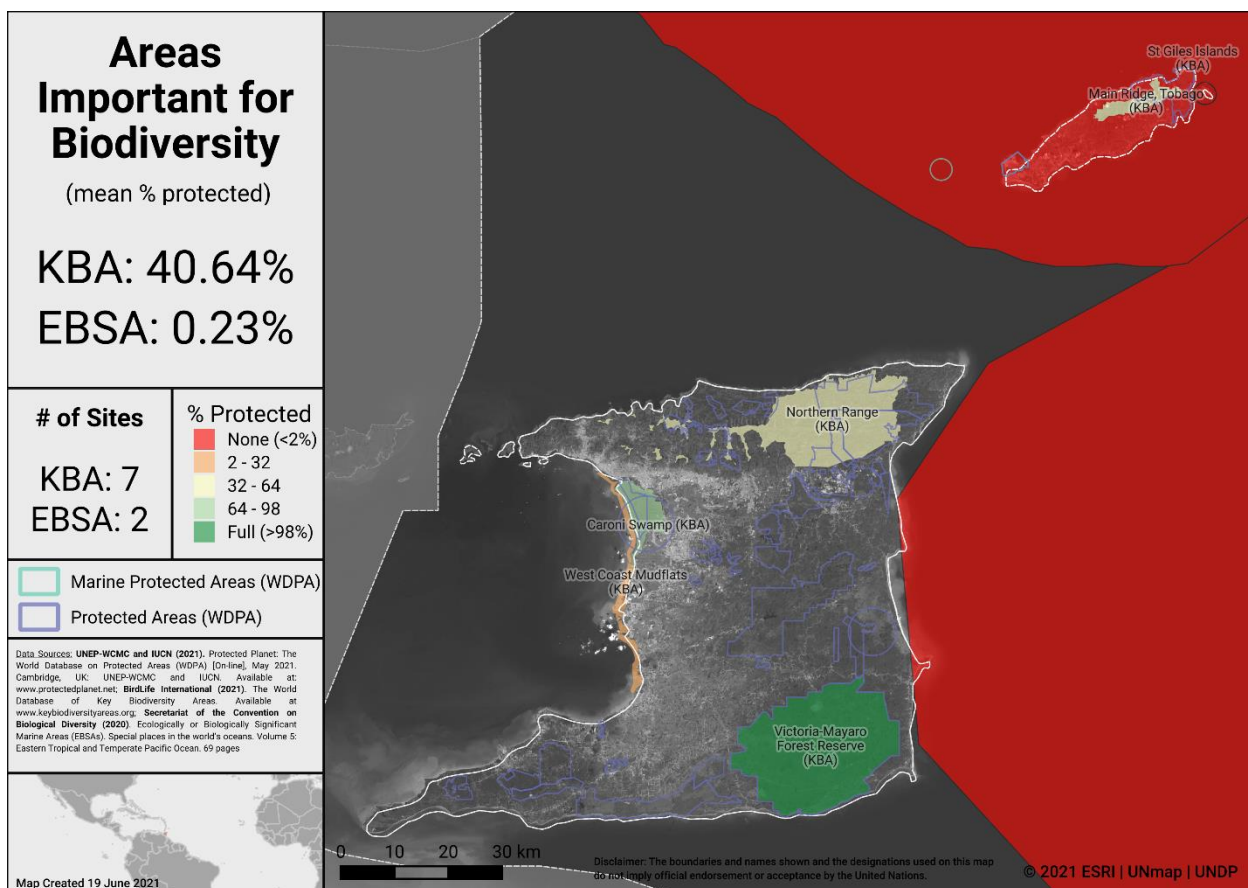
Trinidad and Tobago has 7 Key Biodiversity Areas (KBAs).

- Mean percent coverage of all KBAs by PAs and OECMs in Trinidad and Tobago is **40.6%**.
- **1** KBA has full (>98%) coverage by PAs and OECMs.
- **4** KBAs have partial coverage by PAs and OECMs.
- **2** KBAs have no (<2%) coverage by PAs and OECMs.

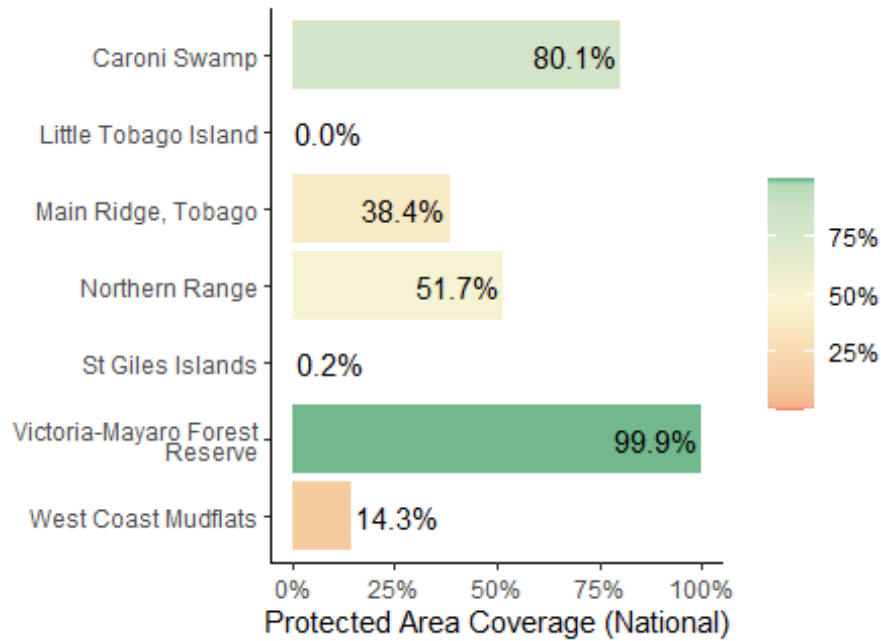
Ecologically or Biologically Significant Marine Areas (EBSAs)

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.

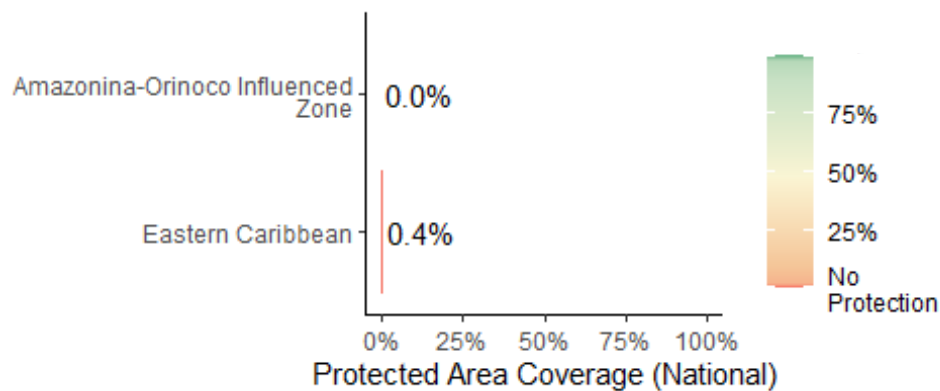
There are 2 EBSAs with some portion of their extent within Trinidad and Tobago’s EEZ, of which 1 EBSA has no coverage from PAs and OECMs.



Areas Important for Biodiversity in Trinidad and Tobago



Key Biodiversity Area Coverage (KBA) in Trinidad and Tobago



Ecologically or Biologically Significant Marine Areas (EBSAs) in Trinidad and Tobago

Opportunities for action

There is opportunity for Trinidad and Tobago to continue implementation of the National Protected Areas Systems Plan and the protection of national areas of importance for biodiversity.



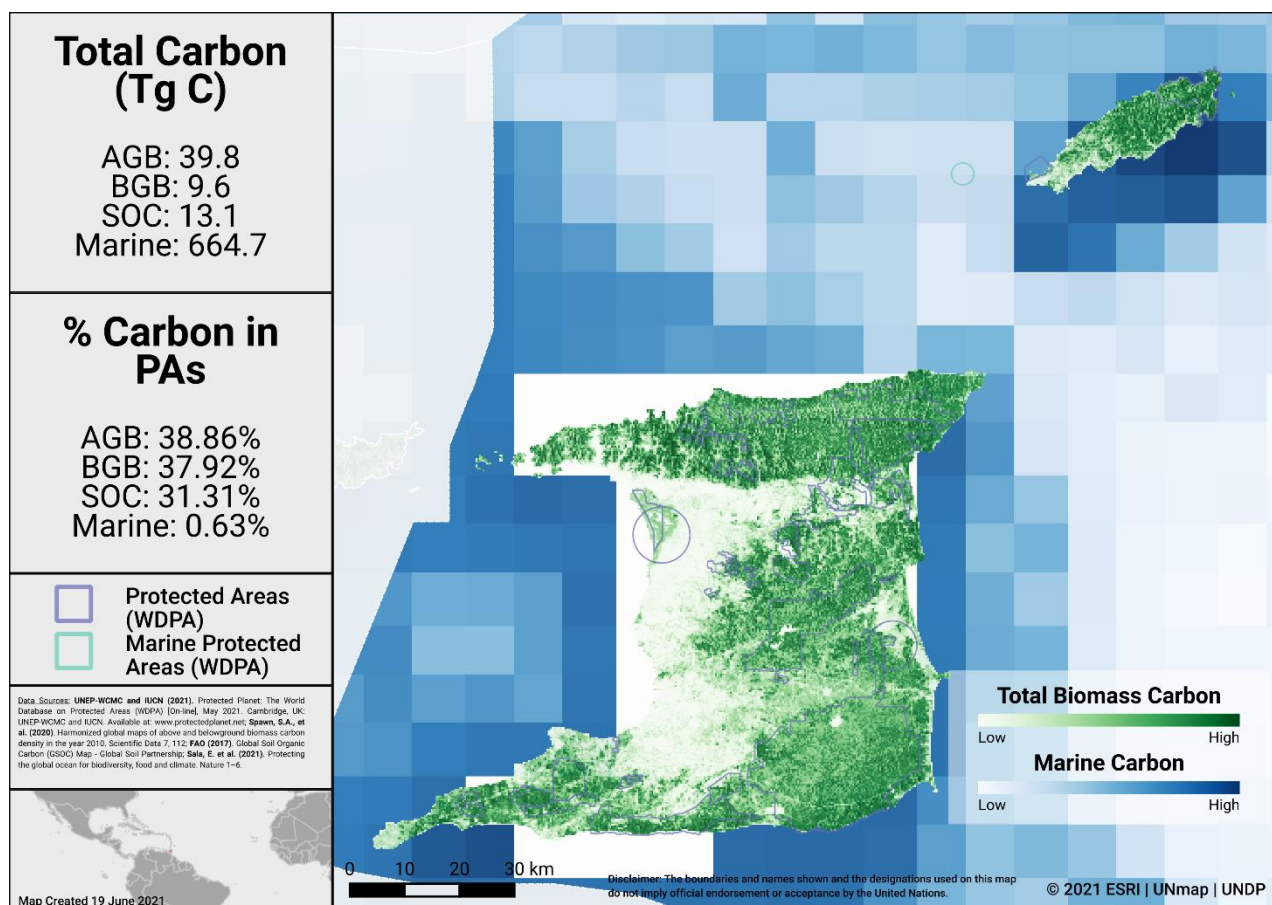
AREAS IMPORTANT FOR ECOSYSTEM SERVICES

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 Trinidad and Tobago and the percent of carbon in protected areas. The total carbon stocks is 39.8 Tg C from aboveground biomass (AGB), with 38.9% in PAs; 9.6 Tg C from below ground biomass (BGB), with 37.9% in PAs; 13.1 Tg C from soil organic carbon (SOC), with 31.3% in PAs; and 664.7 Tg C from marine sediment carbon, with 0.6% in PAs.



Carbon Stocks in Trinidad and Tobago

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 Trinidad and Tobago may similarly depend on protected forest areas within and around water catchments. Intact catchments can support more consistent water supply and improved water quality. Trinidad and Tobago is subdivided into fourteen (14) hydrometric units, nine (9) in Trinidad and five (5) in Tobago. Trinidad is further divided into fifty-four (54) watersheds and Tobago sub-divided into fifteen (15) watersheds. Further details, including watershed maps, are available her: <http://www.adoptarivertt.com/archived/watersheds/watershed-maps/>.

Opportunities for action

For carbon, there is opportunity for Trinidad and Tobago to increase PA and OECM coverage in marine areas with high carbon stock, and to focus on effective management for terrestrial PAs 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 Trinidad and Tobago was 25.9%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Trinidad and Tobago is 0.49. This represents no significant change since 2010.

Corridor case studies

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

Opportunities for action

There is opportunity to focus on PAs and OECMs 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.

All protected areas in Trinidad and Tobago are governed by the **government**. However, as of May 2021, all PAs reported in the WDPA **do not** have a governance type listed (the WDPA will need to be updated).

OECMs

As of May 2021, there are **0** OECMs in Trinidad and Tobago reported in the WD-OECM. One potential OECM in Trinidad and Tobago is the *Asa Wright Nature Centre*, which falls under private governance.

Privately Protected Areas (PPAs)

There is currently no data available on PPAs for Trinidad and Tobago (see Gloss et al., 2019, and Stolton et al., 2014 for details). However, some private lands are managed as conservation areas, for example those belonging to the Asa Wright Nature Centre, which comprises approximately 1,500 acres.⁴

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

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

Other Indigenous lands

There is currently no data available on lands managed and/or controlled by Indigenous Peoples in Trinidad and Tobago (see Garnett et al 2018 for details). However, The Santa Rosa First Peoples Community of Arima received their Lease Agreement for 25 acres of land for the creation of a First Peoples Heritage Village and Living Museum during a ceremony in 2018.⁵

Opportunities for action

Increase efforts to report the governance types for the 100.0% of sites that do not have their governance type reported. If applicable, explore opportunities for governance types that have lower representation.

There is also opportunity for Trinidad and Tobago to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement.

⁴ See details at: <https://asawright.org/about-the-centre/>

⁵ See details at: <https://tt.loopnews.com/content/first-peoples-receive-25-acres-land-heritage-village-museum>



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. Information is also included regarding changes in forest cover nationally within PAs and OECMs.

Protected area management effectiveness (PAME) assessments

As of May 2021, Trinidad and Tobago has 44 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 km²) 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 km²) 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.

However, under the Improving Forest and Protected Area Management in Trinidad and Tobago Project (IFPAMTT, 2015-2020), management plans were developed for six pilot protected areas, in addition to the National Protected Areas Systems Plan.⁶

OECMs

As of May 2021, there are 0 OECMs in Trinidad and Tobago reported in the WD-OECM. One potential OECM in Trinidad and Tobago is the *Asa Wright Nature Centre*. More information on the site is available at: <https://asawright.org/about-the-centre/>

⁶ More information on the Systems Plan:

<https://www.protectedareastt.org.tt/index.php/protected-areas/national-protected-area-system-plan>

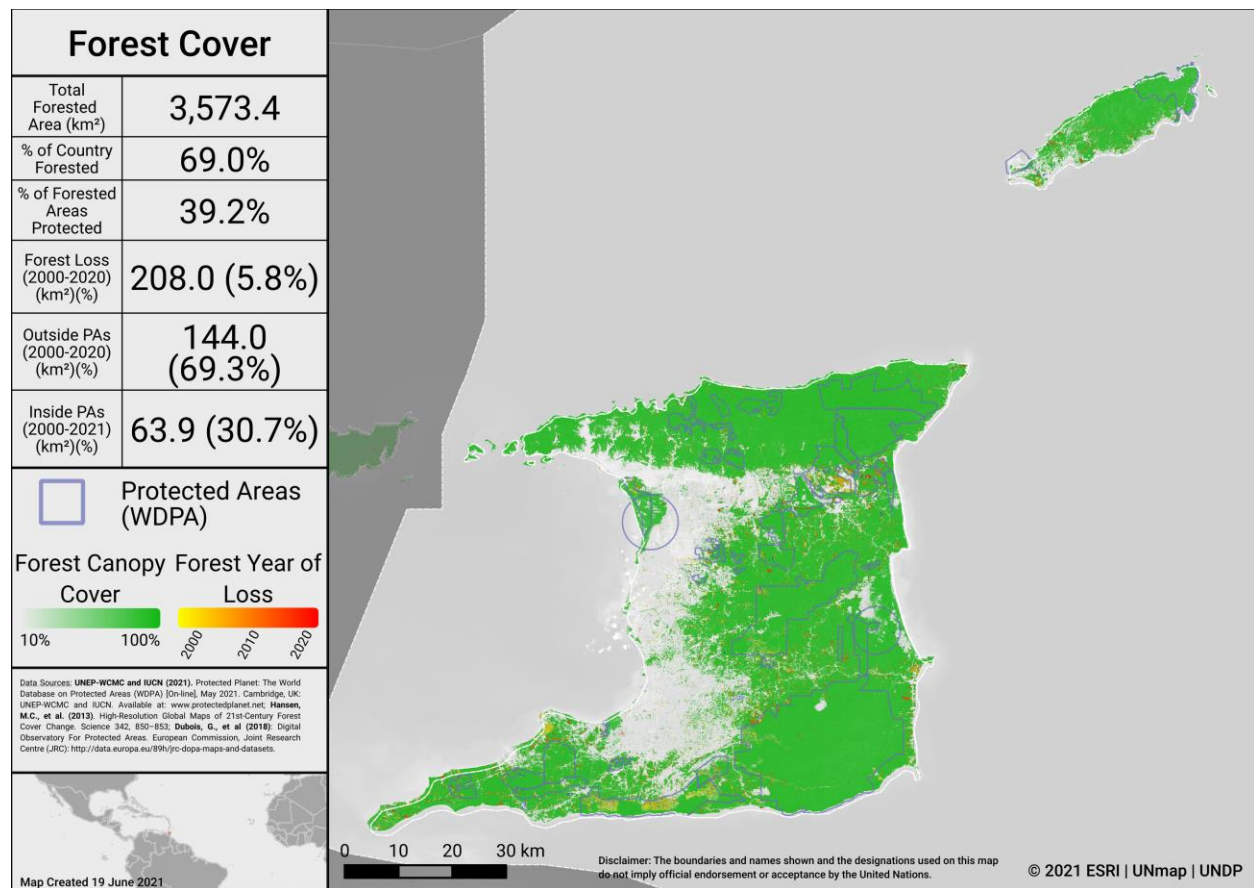
Management plans are available here:

<https://www.protectedareastt.org.tt/index.php/resources/publications/reports/349-final-management-plans-for-pas-produced-under-ifpamtt-project>



Changes in forest cover in protected areas and OECMs

Forested areas in Trinidad and Tobago cover approximately 69.0% of the country, an area of 3,573.4 km². Approximately 39.2% (1,399.7 km²) of this is within the protected area estate of Trinidad and Tobago. Over the period 2000-2020 loss of forest cover amounted to over 208.0 km², or 4.0% of the country (5.8% of forest area), of which 63.9 km² (30.7% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Trinidad and Tobago 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 Trinidad and Tobago

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

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

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

By 2020, at least 17% of terrestrial and inland water, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are managed consistent with approved plans

Progress to date:

In 2019, the government of Trinidad and Tobago approved a National Protected Areas Systems Plan, proposing the establishment of close to 20,000 km² of protected **land and marine** space in Trinidad and Tobago.

The goal of the Plan is to identify areas within the national jurisdiction of Trinidad and Tobago which can enable the protection of the country's biodiversity, to be consistent with national policies for forests, protected areas and wildlife. The new Plan proposes the establishment of 136 Protected Areas. Of these, 92 are terrestrial/freshwater (79 in Trinidad and 13 in Tobago), 40 are coastal/marine (18 in Trinidad, 22 in Tobago) and 4 are deep-seas marine areas. In total, approximately 1,933km² (1,866 km² in Trinidad, 67 km² in Tobago) of the country's land mass is proposed to be terrestrial/freshwater protected areas. The proposed coastal and marine protected areas approximate to 580 km² (14 km² in Trinidad and 566 km² in Tobago). The proposed open-ocean waters and deep-sea marine areas cover 15,600 km².



APPROVED GEF-5 & GEF-6 PROTECTED AREA PROJECTS

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

This includes biodiversity projects from the fifth and sixth replenishment of the Global Environment Facility (GEF-5 and GEF-6) with a clear impact of the quantity or quality of PAs; also including some projects occurring within the wider landscapes/seascapes around PAs. Only those with a status of 'project approved' or 'concept approved' as of June 2019 were considered. The qualifying elements likely benefiting from each GEF project is assessed based on a keyword search of Project Identification Forms (PIF).

GEF ID	PA increase?	Area to be added (km ²)	Type of new protected area	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4769	Yes	350	Terrestrial	Ecologically representative; Areas important for biodiversity; Effectively managed; Equitably managed



ANNEX I

FULL LIST OF TERRESTRIAL ECOREGIONS

Ecoregion Name	Area (km²)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km²)	% Protected in Country
Amazon-Orinoco-Southern Caribbean mangroves	184.9	0.5	3.6	90.9	49.2
Trinidad and Tobago dry forest	270.4	100.0	5.2	39.7	14.7
Trinidad and Tobago moist forest	4,722.0	100.0	91.1	1,443.5	30.6



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