Trinidad and Tobago Country Insights

21 Feb 2025

Congratulations! This country has available data.

This page includes country-specific insights and more detailed analysis, including carbon stocks, emissions factors, and ecosystem wetland area for mangrove, marsh, and seagrass ecosystems. This report details information for the selected country, **Trinidad and Tobago**.

Please explore the rest of the dashboard for more exciting visualizations, map features, and data.

Resources referenced to calculate estimates for **Trinidad and Tobago** are listed below under 'References' at the bottom of this document.

Total Carbon Stock Estimates

Total Carbon stock estimates were calculated for each country and habitat At this time total Carbon stock estimates do not include seagrass

We estimate that **Trinidad and Tobago** contains between 2868631.79 to 2048743.5 metric tonnes of soil C to a depth of 1 m, with a mean estimate of 2458687.64 metric tonnes C.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Trinidad and Tobago	Trinidad and Tobago	total	2458688	2868632	2048743	209155.2

This total estimate includes total mangrove carbon stocks, from NA to NA metric tonnes of soil C to a depth of 1 m, with a mean estimate of 2441042.25

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Trinidad and Tobago	Trinidad and Tobago	mangrove	2441042	NA	NA	211031.4

This total estimate also includes total tidal marsh carbon stocks, ranging from NA to NAmetric tonnes of soil C to a depth of 1 m, with a mean estimate of 17645.4

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Trinidad and Tobago	Trinidad and Tobago	marsh	17645.4	NA	NA	2481.161

Seagrass carbon stocks were not included in the total value due to lack of a global, transparent, and independently assessed seagrass habitat map, however, best available areas and stocks for **Trinidad and Tobago** are explored in the following 'Wetland Areas and Activities' section.

Wetland Areas and Activities

We estimate mangrove area in **Trinidad and Tobago** to be 5552.8239935731 to 78.2268205555072 hectares, with a mean estimate of 6323.94364544635 hectares according to Global Mangrove Watch Bunting et al. (2018).

We estimate tidal marsh area in **Trinidad and Tobago** to be 41.9137681899113 to 78.2268205555072 hectares, with a mean estimate of hectares according to Worthington et al. (2024).

We estimate seagrass area to be **Trinidad and Tobago** to be a mean of 112 hectares, according to McKenzie et al. (2020), aggregating data from multiple sources.

McKenzie et al. (2020) classifies seagrass area estimates as either high or medium to low confidence. seagrass_area_high_confidence % of the estimated seagrass area of **Trinidad and Tobago** is considered high to medium confidence, while seagrass_area_low_confidence % of the estimated seagrass area is categorized as low confidence.

Calculated Stocks and Emissions Factors

This section of the report details whether data is available to estimate Tier I, Tier II, or Tier III value estimates for tidal marsh, mangrove, and seagrass ecosystems in **Trinidad and Tobago**.

If data for the selected country is available in the Coastal Carbon Atlas, we have applied a Tier II emission factor based on a simple average of country specific data queried from the Atlas.

Data from **Trinidad and Tobago** includes 0 soil profiles from 0watersheds. This data comes from 0 different habitat types.

If there is not yet any country specific information in the Coastal Carbon Atlas, we instead applied IPCC Tier I estimate. IPCC Tier I estimates for mangrove, marsh, and seagrass ecosystems are listed below. **SOURCE**

The table in this section also details whether the calculated Tier II value is significantly different from the estimated Tier I values. This is observed in the "Overlap" column.

Table 4: IPCC Tier I Value Estimates

Habitat	Mean	Lower_CI	Upper_CI
mangrove	386	351	424
marsh	255	254	297
seagrass	108	84	139

Table 5: Availiability of Tier I and Tier II Data

Country	Territory	Habitat	Tier	Overlap
Trinidad and Tobago	Trinidad and Tobago	mangrove	Tier I	NA
Trinidad and Tobago	Trinidad and Tobago	marsh	Tier I	NA
Trinidad and Tobago	Trinidad and Tobago	seagrass	Tier I	NA

Tier I Carbon Stocks

This table includes Tier I Carbon Stocks included for **Trinidad and Tobago**.

country	territory	habitat	stock_MgHa_mean	stock_MgHa_lowerCI	stock_MgHa_upperCI	tierCI	carbon_pool
Trinidad and Tobago	Trinidad and Tobago	mangrove	386	351	424	TierI	soil
Trinidad and Tobago	Trinidad and Tobago	marsh	255	254	297	TierI	soil
Trinidad and Tobago	Trinidad and Tobago	seagrass	108	84	139	TierI	soil

Tier II Carbon Stocks

This table includes Tier II Carbon Stock estimates for **Trinidad and Tobago**. Estimates in this table were derived from data queried from the Coastal Carbon Atlas. SOURCE

country	territory	habitat	tier	carbon_pool	stock_MgHa_mean	stock_MgHa_se	stock_MgHa_upperCI	stock_MgHa_lowerCI

Tier III Carbon Stocks

Tier III carbon stocks were estimated, when available, from remote sensing data from Maxwell et al 2021 and Sanderman et al 2018. The table below details whether estimated values are available for **Trinidad and Tobago**, and any overlap with associated Tier I or Tier II values.

If there are no Tier III estimates associated with the selected country, please refer to Tier I and Tier II tables.

```
## [1] "There are currently no Tier III remote sensing estimates for this country. Please refer to Tier
```

References

Bunting, Pete, Ake Rosenqvist, Richard M. Lucas, Lisa-Maria Rebelo, Lammert Hilarides, Nathan Thomas, Andy Hardy, Takuya Itoh, Masanobu Shimada, and C. Max Finlayson. 2018. "The Global Mangrove Watch—a New 2010 Global Baseline of Mangrove Extent." *Remote Sensing* 10 (10): 1669. https://doi.org/10.3390/rs10101669.

McKenzie, Len J, Lina M Nordlund, Benjamin L Jones, Leanne C Cullen-Unsworth, Chris Roelfsema, and Richard K F Unsworth. 2020. "The Global Distribution of Seagrass Meadows." *Environmental Research Letters* 15 (7): 074041. https://doi.org/10.1088/1748-9326/ab7d06.

Worthington, Thomas A., Mark Spalding, Emily Landis, Tania L. Maxwell, Alejandro Navarro, Lindsey S. Smart, and Nicholas J. Murray. 2024. "The Distribution of Global Tidal Marshes from Earth Observation Data." *Global Ecology and Biogeography* 33 (8). https://doi.org/10.1111/geb.13852.