

Palau 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, **Palau**.

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

Resources referenced to calculate estimates for **Palau** 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 **Palau** contains between 3365861.46 to 1654912.47 metric tonnes of soil C to a depth of 1 m, with a mean estimate of 2510386.96 metric tonnes C.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Palau	Palau	total	2510387	3365861	1654912	436466.6

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 2510386.96.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Palau	Palau	mangrove	2510387	NA	NA	445559.6

This total estimate also includes total tidal marsh carbon stocks, ranging from NA to NA metric tonnes of soil C to a depth of 1 m, with a mean estimate of 0.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Palau	Palau	marsh	0	NA	NA	NA

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 **Palau** are explored in the following ‘Wetland Areas and Activities’ section.

Wetland Areas and Activities

We estimate mangrove area in **Palau** to be 4927.73450128861 to 0 hectares, with a mean estimate of 5612.04808975378 hectares according to Global Mangrove Watch Bunting et al. (2018).

We estimate tidal marsh area in **Palau** to be 0 to 0 hectares, with a mean estimate of hectares according to Worthington et al. (2024).

We estimate seagrass area to be **Palau** to be a mean of 7998 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 **Palau** 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 **Palau**.

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 **Palau** includes 16 soil profiles from 16 watersheds. This data comes from 1 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: Availability of Tier I and Tier II Data

Country	Territory	Habitat	Tier	Overlap
Palau	Palau	mangrove	Tier II	Country-specific average overlaps Tier I
Palau	Palau	marsh	Tier I	NA
Palau	Palau	seagrass	Tier I	NA

Tier I Carbon Stocks

This table includes Tier I Carbon Stocks included for **Palau**.

