Bangladesh 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, **Bangladesh**.

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

Resources referenced to calculate estimates for **Bangladesh** 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 **Bangladesh** contains between 249844609.6 to 47421116.63 metric tonnes of soil C to a depth of 1 m, with a mean estimate of 148632863.11 metric tonnes C.

country	territory	habitat	$total_stocks$	total_stocks_lower total	_stocks_upper tota	l_stocks_se
Bangladesh	Bangladesh	total	148632863	249844610	47421117	51638646

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 142973756.4

country	territory	habitat	$total_stocks$	total_stocks_lower total_	$_stocks_uppertotal_$	_stocksse
Bangladesh	Bangladesh	mangrove	142973756	NA	NA	51918711

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 5659106.71

country	territory	habitat	total_stocks	total_stocks_lower total_	_stocks_upper total_stocks_s	se
Bangladesh	Bangladesh	marsh	5659107	NA	NA 795740.4	$\overline{4}$

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 **Bangladesh** are explored in the following 'Wetland Areas and Activities' section.

Wetland Areas and Activities

We estimate mangrove area in **Bangladesh** to be 389666.49907517 to 25088.3538994876 hectares, with a mean estimate of 443779.414496457 hectares according to Global Mangrove Watch Bunting et al. (2018).

We estimate tidal marsh area in **Bangladesh** to be 13442.2879792671 to 25088.3538994876 hectares, with a mean estimate of hectares according to Worthington et al. (2024).

We estimate seagrass area to be **Bangladesh** to be a mean of NA 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 **Bangladesh** 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 **Bangladesh**.

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 **Bangladesh** includes 12 soil profiles from 3watersheds. 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: Availiability of Tier I and Tier II Data

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

Tier I Carbon Stocks

This table includes Tier I Carbon Stocks included for Bangladesh.

country	territory	habitat	stock_MgHa_metock_	_MgHa_lowe s @kk_	_MgHa_uppe	etzi EH	carbon_pool
Bangladesh	Bangladesh	marsh	255	254	297	TierI	soil
Bangladesh	Bangladesh	seagrass	108	84	139	TierI	soil

Tier II Carbon Stocks

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

country	territory	habitat	tier	carbon_	_postockM	gHa_s	atnocakn	_MgHa <u>st</u> sæk_	_MgHa_	_upspectCI_MgHa_	_lowerCI
$\overline{ Bangladesl} \overline{ Bangladesl} \overline{ mangrove} \overline{ TierII}$			soil	322.1	73	114.6	3887 ÷	546.9587	97.3874		

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 **Bangladesh**, 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.

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Bangla Benglades Igilo 32:1107101.2447164.9766 less than	Remote-sensing esimate overlaps country-specific average	less than	Remote-sensing esimate is significantly less than Tier I	Tier III

References

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