Democratic Republic of the Congo Country Insights

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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, **Democratic Republic of the Congo**.

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

Resources referenced to calculate estimates for **Democratic Republic of the Congo** 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 **Democratic Republic of the Congo** contains between 10978044.48 to 10943071.06 metric tonnes of soil C to a depth of 1 m, with a mean estimate of 10960557.77 metric tonnes C.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Democratic Republic of the Congo	Democratic Republic of the Congo	total	10960558	10978044	10943071	8921.791

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 10895786.37

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Democratic Republic of the Congo	Democratic Republic of the Congo	mangrove	10895786	NA	NA	NA

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 64771.41

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
Democratic Republic of the Congo	Democratic Republic of the Congo	marsh	64771.41	NA	NA	9107.662

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 **Democratic Republic of the Congo** are explored in the following 'Wetland Areas and Activities' section.

Wetland Areas and Activities

We estimate mangrove area in **Democratic Republic of the Congo** to be 17934.5767173547 to 287.149213328262 hectares, with a mean estimate of 20425.148104236 hectares according to Global Mangrove Watch Bunting et al. (2018).

We estimate tidal marsh area in **Democratic Republic of the Congo** to be 153.853952875615 to 287.149213328262 hectares, with a mean estimate of hectares according to Worthington et al. (2024).

We estimate seagrass area to be **Democratic Republic of the Congo** 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 **Democratic Republic of the Congo** 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 **Democratic Republic of the Congo**.

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 **Democratic Republic of the Congo** 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
Democratic Republic of the Congo	Democratic Republic of the Congo	mangrove	Tier II	Country-specific average is significantly greater than Tier I
Democratic Republic of the Congo	Democratic Republic of the Congo	marsh	Tier I	NA
Democratic Republic of the Congo	Democratic Republic of the Congo	seagrass	Tier I	NA

Tier I Carbon Stocks

This table includes Tier I Carbon Stocks included for **Democratic Republic of the Congo**.

country	territory	habitat	stock_MgHa	stock_mean_MgHa	lowerCI_MgHa	tier	upperCI_Carbon	pool
Democratic Republic of the Congo	Democratic Republic of the Congo	marsh	255	254	297	TierI	soil	
Democratic Republic of the Congo	Democratic Republic of the Congo	seagrass	108	84	139	TierI	soil	

Tier II Carbon Stocks

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

country	territory	habitat	tier	carbon_pool	stock_MgHa	stock_mean_MgHa	lowerCI_MgHa	upperCI_MgHa	lowerCI
Democratic Republic of the Congo	Democratic Republic of the Congo	mangrove	TierII	soil	533.4496	0.038811	NA	NA	

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 **Democratic Republic of the Congo**, 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.

country	territory	habitat	stock_MgHa	stock_mean_MgHa	lowerCI_MgHa	upperCI_MgHa	tierIII_overlaps	tierIII_greater_tierII_overlaps	tierIII_tierI_overlaps
Democratic Republic of the Congo	Democratic Republic of the Congo	mangrove	430.2553	356.8099	503.7019	less than	Remote-sensing esimate is significantly less than country-specific average	greater than	Remote-sensing esimate overlaps Tier I	Tier III

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.