United Kingdom 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, **United Kingdom**.

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

Resources referenced to calculate estimates for **United Kingdom** 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 **United Kingdom** contains between c(14762590.64, 7710930.7, 3417878.27, 708741.82, 34840.83, 2234.06, 0, 0) to c(8563392.92, 5513541.63, 2441669.86, 708741.82, 24921.14, 1597.99, 0, 0) metric tonnes of soil C to a depth of 1 m, with a mean estimate of c(11662991.78, 6612236.16, 2929774.07, 708741.82, 29880.99, 1916.02, 0, 0) metric tonnes C.

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
United Kingdom	United Kingdom	total	11662991.776	14762590.637	8563392.915	1581427.9904
United Kingdom	Turks and Caicos Islands	total	6612236.164	7710930.696	5513541.632	560558.4348
United Kingdom	Cayman Islands	total	2929774.066	3417878.271	2441669.860	249032.7580
United Kingdom	Falkland Islands	total	708741.818	708741.818	708741.818	0.0000
United Kingdom	British Virgin Islands	total	29880.986	34840.829	24921.142	2530.5323
United Kingdom	Anguilla	total	1916.022	2234.056	1597.988	162.2622
United Kingdom	Bermuda	total	0.000	0.000	0.000	0.0000
United Kingdom	Montserrat	total	0.000	0.000	0.000	0.0000

This total estimate includes total mangrove carbon stocks, from c(NA, NA, NA, NA, NA, NA, NA, NA) to c(NA, NA, NA, NA, NA, NA, NA, NA) metric tonnes of soil C to a depth of 1 m, with a mean estimate of c(0, NA, 1916.02, NA, 29880.99, 2912455.37, 6601159.02, 0)

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
United Kingdom	Falkland Islands	mangrove	0.000	NA	NA	NA
United Kingdom	Montserrat	mangrove	NA	NA	NA	NA
United Kingdom	Anguilla	mangrove	1916.022	NA	NA	165.6427
United Kingdom	Bermuda	mangrove	NA	NA	NA	NA
United Kingdom	British Virgin Islands	mangrove	29880.986	NA	NA	2583.2517
United Kingdom	Cayman Islands	mangrove	2912455.369	NA	NA	251785.7174
United Kingdom	Turks and Caicos Islands	mangrove	6601159.016	NA	NA	570679.1514
United Kingdom	United Kingdom	mangrove	0.000	NA	NA	NA

This total estimate also includes total tidal marsh carbon stocks, ranging from c(NA, NA, NA, NA, NA, NA, NA, NA) to c(NA, NA, NA, NA, NA, NA, NA, NA)metric tonnes of soil C to a depth of 1 m, with a mean estimate of c(708741.82, NA, 0, NA, 0, 17318.7, 11077.15, 11662991.78)

country	territory	habitat	total_stocks	total_stocks_lower	total_stocks_upper	total_stocks_se
United Kingdom	Falkland Islands	marsh	708741.82	NA	NA	NA
United Kingdom	Montserrat	marsh	NA	NA	NA	NA
United Kingdom	Anguilla	marsh	0.00	NA	NA	NA
United Kingdom	Bermuda	marsh	NA	NA	NA	NA
United Kingdom	British Virgin Islands	marsh	0.00	NA	NA	NA
United Kingdom	Cayman Islands	marsh	17318.70	NA	NA	2435.223
United Kingdom	Turks and Caicos Islands	marsh	11077.15	NA	NA	1557.584
United Kingdom	United Kingdom	marsh	11662991.78	NA	NA	1614374.407

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

Wetland Areas and Activities

We estimate mangrove area in **United Kingdom** to be c(0, NA, 4.35852062396696, NA, 67.9725451019619, 6625.18318584358, 15016.1572219814, 0) to c(830.264581183399, NA, 0, NA, 0, 76.7784769405105, 49.1079999248326, 65331.106011949) hectares, with a mean estimate of c(0, NA, 4.96378758544922, NA, 77.4118800019388, 7545.22116251585, 17101.4482275832, 0) hectares according to Global Mangrove Watch Bunting et al. (2018).

We estimate tidal marsh area in **United Kingdom** to be c(444.854040403216, NA, 0, NA, 0, 41.1377486852551, 26.3119644963598, 35004.2710866967) to c(830.264581183399, NA, 0, NA, 0, 76.7784769405105, 49.1079999248326, 65331.106011949) hectares, with a mean estimate of hectares according to Worthington et al. (2024).

We estimate seagrass area to be **United Kingdom** to be a mean of c(NA, 1307, 1370, 1625, 3991, 6390, 48912, 13158) 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 **United Kingdom** 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 **United Kingdom**.

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 **United Kingdom** includes 381 soil profiles from 39watersheds. 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
United Kingdom	Falkland Islands	mangrove	Tier I	NA
United Kingdom	Falkland Islands	marsh	Tier II	Country-specific average is significantly greater than Tier I
United Kingdom	Falkland Islands	seagrass	Tier I	NA
United Kingdom	Montserrat	mangrove	Tier I	NA
United Kingdom	Montserrat	marsh	Tier I	NA
United Kingdom	Montserrat	seagrass	Tier I	NA

Country	Territory	Habitat	Tier	Overlap
United Kingdom	Anguilla	mangrove	Tier I	NA
United Kingdom	Anguilla	marsh	Tier I	NA
United Kingdom	Anguilla	seagrass	Tier I	NA
United Kingdom	Bermuda	mangrove	Tier I	NA
United Kingdom	Bermuda	marsh	Tier I	NA
United Kingdom	Bermuda	seagrass	Tier I	NA
United Kingdom	British Virgin Islands	mangrove	Tier I	NA
United Kingdom	British Virgin Islands	marsh	Tier I	NA
United Kingdom	British Virgin Islands	seagrass	Tier I	NA
United Kingdom	Cayman Islands	mangrove	Tier I	NA
United Kingdom	Cayman Islands	marsh	Tier I	NA
United Kingdom	Cayman Islands	seagrass	Tier I	NA
United Kingdom	Turks and Caicos Islands	mangrove	Tier I	NA
United Kingdom	Turks and Caicos Islands	marsh	Tier I	NA
United Kingdom	Turks and Caicos Islands	seagrass	Tier I	NA
United Kingdom	United Kingdom	mangrove	Tier I	NA
United Kingdom	United Kingdom	marsh	Tier II	Country-specific average is significantly less than Tier I
United Kingdom	United Kingdom	seagrass	Tier I	NA

Tier I Carbon Stocks

This table includes Tier I Carbon Stocks included for **United Kingdom**.

country	territory	habitat	stock_MgHa_mean	stock_MgHa_lowerCI	stock_MgHa_upperCI	tierCI	carbon_pool
United Kingdom	Falkland Islands	mangrove	386	351	424	TierI	soil
United Kingdom	Falkland Islands	seagrass	108	84	139	TierI	soil
United Kingdom	Montserrat	mangrove	386	351	424	TierI	soil
United Kingdom	Montserrat	marsh	255	254	297	TierI	soil

country	territory	habitat	stock_MgHa_mean	stock_MgHa_lowerCI	stock_MgHa_upperCI	tier	carbon_pool
United Kingdom	Montserrat	seagrass	108	84	139	TierI	soil
United Kingdom	Anguilla	mangrove	386	351	424	TierI	soil
United Kingdom	Anguilla	marsh	255	254	297	TierI	soil
United Kingdom	Anguilla	seagrass	108	84	139	TierI	soil
United Kingdom	Bermuda	mangrove	386	351	424	TierI	soil
United Kingdom	Bermuda	marsh	255	254	297	TierI	soil
United Kingdom	Bermuda	seagrass	108	84	139	TierI	soil
United Kingdom	British Virgin Islands	mangrove	386	351	424	TierI	soil
United Kingdom	British Virgin Islands	marsh	255	254	297	TierI	soil
United Kingdom	British Virgin Islands	seagrass	108	84	139	TierI	soil
United Kingdom	Cayman Islands	mangrove	386	351	424	TierI	soil
United Kingdom	Cayman Islands	marsh	255	254	297	TierI	soil
United Kingdom	Cayman Islands	seagrass	108	84	139	TierI	soil
United Kingdom	Turks and Caicos Islands	mangrove	386	351	424	TierI	soil
United Kingdom	Turks and Caicos Islands	marsh	255	254	297	TierI	soil
United Kingdom	Turks and Caicos Islands	seagrass	108	84	139	TierI	soil
United Kingdom	United Kingdom	mangrove	386	351	424	TierI	soil
United Kingdom	United Kingdom	seagrass	108	84	139	TierI	soil

Tier II Carbon Stocks

This table includes Tier II Carbon Stock estimates for **United Kingdom**. 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
United Kingdom	Falkland Islands	marsh	TierII	soil	965.0193	298.882345	NA	NA
United Kingdom	United Kingdom	marsh	TierII	soil	201.8155	7.102015	215.7351	187.8958

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 **United Kingdom**, 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_	MgHa_	MgHa_	tierIII_	tierIII_	tierIII_	tierIII_	tier
United Kingdom	Falkland Islands	marsh	686.1577	557.2053	815.1085	less than	Remote-sensing esimate overlaps country-specific average	greater than	Remote-sensing esimate is significantly greater than Tier I	Tier III
United Kingdom	United Kingdom	marsh	255.1282	228.8115	281.4462	greater than	Remote-sensing esimate is significantly greater than country-specific average	greater than	Remote-sensing esimate overlaps Tier I	Tier III

References

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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.

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