Checklist | Blue Carbon Readiness Framework

CHECKLIST 2

Resources for Gathering Required Data for GHG Inventories

References: *The Blue Carbon Initiative's BC & NDC Guidelines on Enhanced Action, Landsat data available from the U.S. Geological Survey*

There are several datasets required for the development of an effective GHG inventory. The requirements fall into two general categories: Location and extent of BCEs, and activity data. No matter your level of capacity, the prevalence of global datasets and methodologies – such as the IPCC Wetlands Supplement – mean there are still actions your country can take to improve existing inventories and work towards policy and financing actions for your BCE(s).

Location and Extent of BCEs – For inventory reporting purposes, maps, or spatial data on the distribution of BCEs within your country is critical. This data can be used to calculate all required carbon stocks (above and belowground biomass and soil organic carbon (SOC)) and change in carbon stocks over time using default values from the IPCC Wetlands Supplement. This information is also valuable in determining carbon stock gains and losses over time when paired with land use and land use change (LULUCF) data, and for identifying a baseline for BCE location and extent. With knowledge of location and extent of BCE(s) within your country, you can then estimate the amount of carbon stored, sequestered and/or released from the BCE(s) based on land conversion or change.

---

1. Determine the current, and historic location and extent of BCE(s) – Satellite imagery is an effective solution for this step. Note: Your country may already account for mangroves as part of their National Forest Inventory.

a. Landsat (and similar satellites) supply free, open-source imagery at a global scale, and across various timeframes – check the link below for further information:

ⓘ https://landsat.gsfc.nasa.gov/data/where-to-get-data/

b. Map the location and extent of all BCEs present within your country

ⓘ Refer to Checklist 1 for resources on location of established BCEs

c. Incorporate data from new technologies, such as drones, as they become available

---

2. Determine the baseline year for assessing location and extent your country's BCEs

a. Identify the earliest year the Landsat imagery covers for your nation, ensuring this coverage includes any present BCEs

b. This year will serve as your baseline year – e.g, 2005 is the first year where you can clearly identify BCE within your country

---

3. Calculate changes in BCE location and extent over time

Checklist | Blue Carbon Readiness Framework

ACTIVITY DATA –
Activity data refers to rates of carbon accumulation and loss based on uses of, and impacts upon, BCEs. Specifically, activity data refers to the magnitude of human activities or actions which result in emissions or removals during a designated timer period. As a result, activity data is highly country specific.

1. Obtain spatial layers on land use and land use change (LULUCF) for regions of your country where BCE(s) are present

2. Follow guidance laid out in Chapter 4 of the Wetland Supplement to estimate activity data

a. Established BCEs are included within the Wetlands Supplement in the “Coastal Wetlands” category. Emissions factors and methodologies are provided for various categories of BCE use/ impacts upon BCEs such as mangrove management practices, revegetation, aquaculture, and drainage.
