Climate Program Office

ADVANCING SCIENTIFIC UNDERSTANDING OF CLIMATE, IMPROVING SOCIETY'S ABILITY TO PLAN AND RESPOND

NOAA Blue Carbon Inventory Project

Enhancing capacity to integrate coastal wetlands data in national greenhouse gas inventories

Coastal wetlands, such as mangroves, salt marshes, and seagrasses, play a significant role in carbon storage and sequestration around the world, providing some of the highest density stores of carbon in the biosphere. This longterm storage is known as "coastal blue carbon."

Reporting comprehensive inventories of greenhouse gas sources and sinks is an important step for tracking progress towards meeting the Paris Agreement. In 2013, the Intergovernmental Panel on Climate Change released technical guidance on including wetlands in national greenhouse gas inventories (NGGI). Yet, given the technical challenges involved, to date, only a handful of countries have incorporated blue carbon into their NGGI.



Credit: Steve Crooks, Silvestrum Climate Associates



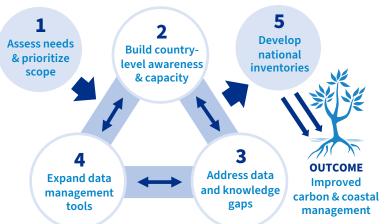
By supporting the accurate and transparent tracking and reporting of coastal blue carbon in national inventories, the NOAA Blue Carbon Inventory (BCI) Project seeks to enhance the cobenefits of coastal ecosystems for mitigation and adaptation in partner countries and regions.

The NOAA BCI Project is part of the Transparency Accelerator for Greenhouse Gas Inventories, a broader U.S. program, and is intended to advance the development of emissions mitigation, coastal resource management, and resilience strategies that reflect the value of coastal ecosystems in carbon storage and sequestration. In addition to benefits for emissions mitigation, a strong network of healthy coastal blue carbon ecosystems can protect coastal communities from storms, waves, erosion and flooding; protect biodiversity; and provide ecosystem services that support livelihoods, culture, food security, water quality, recreation, and sustainable and regenerative tourism.

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The NOAA BCI Project addresses the multiple co-benefits of coastal blue carbon by providing capacity building and technical support to countries around two main topics:

- Inclusion of mangroves, and potentially other coastal blue carbon ecosystems, in NGGIs; and
- The long-term sustainable management of coastal blue carbon ecosystems in the context of marine spatial and resilience planning.

NOAA is engaging with potential partner countries to identify key needs and opportunities around these topics.



Credit: Steve Crooks, Silvestrum Climate Associates



The NOAA BCI Project is supporting engagement and capacity building opportunities, and providing focused technical assistance to partner countries.

Activities include country- and regional-level workshops and trainings, webinars, peer-to-peer engagement, mentoring, and hands-on-learning. The project also advances bilateral and/or multilateral technical collaboration to analyze data and build tools to include coastal blue carbon information in greenhouse gas inventories used to report national data through the United Nations Framework Convention on Climate Change. Other topics for training focus on assessment of carbon stocks, stock change, and management approaches of coastal blue carbon ecosystems. The project is also partnering with the National Aeronautics and Space Administration (NASA) to advance mapping of coastal land cover change and the Smithsonian Environmental Research Center (SERC) to build tools for assessing and tracking quality of global soil and biomass blue carbon data.

The NOAA BCI Project is a multi-agency project led by NOAA's Climate Program Office, in partnership with the U.S. Department of State. The project runs September 2020–March 2024.

The project is leveraging ongoing programs within NOAA, new and ongoing work by the Environmental Protection Agency (EPA), the U.S. Department of Agriculture's Forest Service (USDA/FS), SERC, the U.S. Agency for International Development (USAID), NASA, and other organizations working on blue carbon.