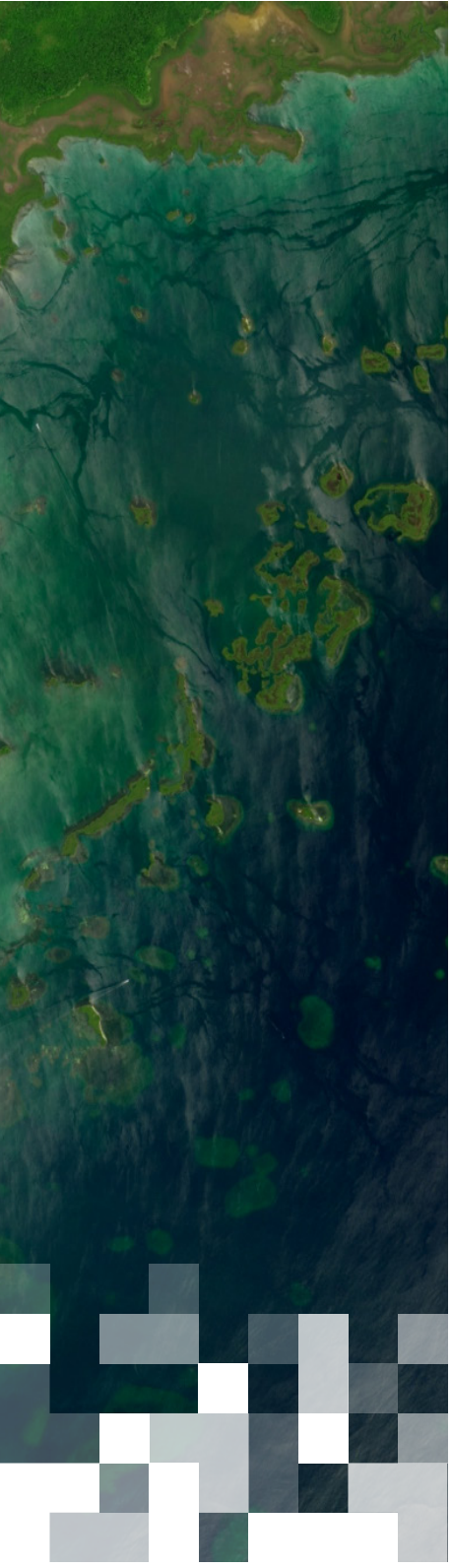

National Aeronautics and
Space Administration

Earth Observations of Blue Carbon Ecosystems

December 03 & 05, 2024

10:00-11:30 (French) or 14:00-15:30 (English) EST (UTC-5)

Nature-based climate solutions are an increasingly critical component of mitigating greenhouse gas emissions to meet the Paris Agreement goal of keeping temperature change to below 2-degrees celsius. Blue carbon ecosystems, such as mangroves, salt marshes, and sea grasses, are a key aspect of nature-based climate solutions because of high carbon sequestration rates, long-term burial of carbon in sediments, potential for restoration, and connections to many additional ecosystem services.

This training builds from a series of previous trainings on Remote Sensing of Coastal Ecosystems, Remote Sensing of Mangroves, and Remote Sensing of Greenhouse Gases, and Remote Sensing of Carbon Monitoring for Terrestrial Ecosystems to provide a comprehensive overview of blue carbon ecosystem remote sensing. The course will guide participants through mapping extent and quantifying the carbon stocks of blue carbon ecosystems using earth observations to support restoration, monitoring, and quantification goals of these ecosystems.

Part 1: Overview of Blue Carbon Ecosystems & Mapping Mangrove Ecosystems with Earth Observations

Guest Instructors: Lola Fatoyinbo, Adia Bey, María Claudia Díazgranados Cadelo, Siti Maryam Yaakub

- Define a blue carbon ecosystem based on ecosystem characteristics
- Map the extent of mangrove ecosystems using satellite observations
- Calculate the carbon stock of mapped mangrove ecosystems

Part 2: Mapping Salt Marsh and Seagrass with Earth Observations

Guest Instructors: Kelly Luis, Anthony Campbell

- Map the extent of salt marsh and seagrass ecosystems using satellite observations
- Calculate the carbon stocks of mapped salt marsh and seagrass ecosystems
- Explore synthesis methods to estimate blue carbon across ecosystems

APPLIED REMOTE SENSING TRAINING PROGRAM
TRAIN - EMPOWER - ADVANCE

ARSET empowers the global community through remote sensing training.