

Breakout Workshop:

Global carbon budget for the land to ocean aquatic continuum (LOAC) from remote sensing

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Description

The assessment of the respective contributions of inland waters (streams, rivers and floodplains, lakes and reservoirs) and coastal waters (estuaries, marshes, mangroves, shelves) in the global carbon budget require a synergistic approach for these very complex and various environments, including in situ observations, models, and remote sensing. In this context, observations from satellite platforms play a central role, providing temporal and spatial coverage.

Objectives

1. Identify the main advances and limitations in the satellite assessment of aquatic carbon over the inland and oceanic (coastal) waters
2. Exchange on best practices from the two communities for the space retrieval of carbon related parameters
3. Identify priority actions over the next decade for the monitoring of the carbon pools and fluxes for the land to ocean aquatic continuum (LOAC) from remote sensing.

Key questions

- Which components of the carbon cycle, with their degree of uncertainties, can (and cannot) be estimated from remote sensing for inland and coastal aquatic environments?
- What are the common or different challenges in the estimation of the carbon pools and fluxes for the land to ocean aquatic continuum from space?
- How do we merge community practices along the continuum across varied consistency between products, temporal dynamics and spatial scales?
- How can we address the vertical dimension (lidar, models, in situ observatories, etc)?