

Scientific Theme II

Implications of Global Change for Coastal Ecosystems and Sustainable Development



Implications of global change for coastal ecosystems and sustainable development focuses on conflicting spatial, temporal and organizational issues of coastal change, land and sea use, and how these exert pressures on coastal systems and influence natural resource availability and sustainability. Key issues include:

- Characterizing the nature and location of coastal environmental and social system boundaries, and their tapestry of interactions
- Assessing system sensitivity and robustness to reveal critical thresholds for changes to biogeochemical and/or hydrological cycles that cause permanent state changes
- Quantifying human impacts on coastal areas using natural science methods and ecological-economic indicators
- Identifying options to design and manage system robustness, through a scenario approach that considers critical thresholds and sustainability
- Evaluating the effects of changing inputs on ecosystem health and coastal zone goods and services, including the links between biological functioning, geochemistry and human drivers.

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