

IMBER: Human - climate interactions

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Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) is one of the global change research projects sponsored by the International Geosphere-Biosphere Programme (IGBP) and the Scientific Committee on Oceanic Research (SCOR). The primary scientific goal of IMBER is to investigate the sensitivity of marine biogeochemical cycles and ecosystems to global change, on time scales ranging from years to decades. This goal is addressed through IMBER-related national and regional research programmes that focus on understanding the physical, biological, and chemical oceanographic processes that regulate biogeochemical cycling and feedbacks to marine food webs. Coupled modelling systems, such as circulation-biogeochemical-ecosystem models, are integral components of all IMBER research activities and provide the basis for assessing and projecting future states that may occur in response to climate change. One of the IMBER science themes is focused on understanding and defining the relationships between marine biogeochemical cycles, ecosystems, and the human system, and incorporating these effects into coupled modelling frameworks that can interface with Earth system models. To further this theme the IMBER Human Dimensions Working Group (HDWG) was established with the goal of providing understanding of the multiple feedbacks between human and ocean systems in the face of global change. Humans are both a driver and a recipient of this change and it has become increasingly critical to understand, at multiple scales from the local to the global, how ecosystems, societies, governments and people, might respond to these changes and threats. The HDWG will develop frameworks to understand and forecast human-ocean interactions with respect to global change. Issues related to the adaptive capacity of socio-ecological systems, governance, food security, global markets and the physical linkages from ocean biogeochemistry to humans will be explored using a comparative case-study approach at multiple scales. This poster provides an overview of IMBER and the IMBER HDWG.