

Coastal Global Observing Systems: A Beginning

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Abstract

The United Nations has begun addressing the detection and prediction of global and large-scale change through the development of observing systems. These observing systems build on the activities of government and non-government programs that make long-term measurements. The function of the observing systems is to link the data from these programs to organizations that could use the integrated data and data products. Products include models that help to predict what and why changes occur beyond single nation boundaries. The three observing systems are the Global Climate Observing System (GCOS); the Global Oceanographic Observing System (GOOS); and the Global Terrestrial Observing System (GTOS). The interface between the land and ocean provides complexities that affect the capabilities of the three global observing systems. Understanding the three-way and complex interactions between natural and human systems at various scales is central to successful management of the coast in the face of change. Thus, there is a clear and recognized need to address the coastal zone in an integrated fashion within the observing system framework. Both GOOS and GTOS have begun to organize initiatives for the coast, with the GOOS initiative being more developed. They will use the observing system philosophy to identify and improve access to data and information about coastal change; enhance the capacity of the developing world to collect and manage information; assist users to make that access systematically; ensure that appropriate measures are being or can be made; and integrate terrestrial observations with marine observations.