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Marine Science in Support for Sustainable Development of the Indian Ocean Region

Martin Visbeck
GEOMAR Helmholtz-Zentrum fuer Ozeanforschung Kiel, Germany

The Indian Ocean rim is home to a significant part of the global population. Its large heat capacity and ocean circulation responds to and regulates seasonal to multi-decadal and long term climate change. In particular the monsoon type circulation regulates rain and drought patterns over India, Africa and Southern Asia. Fishing and more recently resource extraction of energy and materials make the ocean economically important. Global trade and ocean related hazards (such as ocean warming, ocean acidification, ocean de-oxygenation, loss of biodiversity, sea level rise and earth quakes and tsunamis) have important other economic impacts on all societies. On the other hand our current scientific understanding, ability to continually observe changes in the marine environment, model all aspects of the connected ocean system and develop plausible scenarios for the Indian Ocean of the future are still in its infancy. The possibility for a decade long comprehensive Indian Ocean Study in support of providing the information needed for sustainable development of the region is explored.