

Title Towards research for a healthy and sustainable Ocean

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Abstract

The Ocean, with its biodiversity and the benefits it provides to people, is on the front line of climate change. Not only for the role that the Ocean plays in regulating the climate system but also the vulnerabilities of its ecosystems and ocean-dependent communities. The complexity of the climate change and biodiversity crises requires urgent actions at unprecedented depth and scale that take into account the interlinkages among nature, climate and people. Climate Resilient Development (CRD), which integrates adaptation and mitigation measures with sustainable development and takes into account equity and justice as well as the protection and maintenance of ecosystem function, is challenging and will be more challenging if global warming exceeds 1.5C. Climate Resilient Development is the process to successfully navigate the complex interactions between biodiversity, energy, food, urban and coastal development, health and other social sectors, so that action in one area does not have adverse effects elsewhere, and opportunities are harnessed to accelerate progress toward a safer, fairer world for all. Understanding regional variability in climatic change, how other human stressors can attenuate or amplify projected changes, and limits to adaptation of ecosystems and human systems can inform robust adaptation planning and present and future choices for CRD. This presentation focuses on the ocean and its biodiversity, ecosystems, industries and ocean-dependent communities and considers climate change risks, adaptation and “blue” CRD. Examples are drawn from the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, which is based on peer-reviewed scientific, technical and socio-economic literature.