

UN Oceans Conference 2022

Interactive Dialogue 2: Managing, protecting, conserving and restoring marine and coastal ecosystems”

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India Intervention by

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The oceans play significant role in human life and their impact is multitude and multi-dimensional and complex to understand. India is committed towards the same and has built in necessary implementation plans for ensuring safe, healthy and productive ocean and coasts for present and future generations. It is promoting the sustainable use of oceans through well drafted policies that aims to enhance contribution of the blue economy to India’s GDP, improve lives of coastal communities and preserve marine biodiversity.

India has expertise in developing and providing Potential Fishing Zone Advisory Services, which greatly helps the fishermen community in locating the potential zones of fish aggregation in the ocean in a lesser time, reduced human effort and reduced carbon dioxide signatures, supporting livelihoods. Coral bleaching, and Algal Bloom Information Service (ABIS), uses the satellite data to warn the stakeholders about the potential threat from marine heatwaves for coral reefs and harmful algal blooms. India willing to transfer this technology to smaller island development nations and Others. It is estimated that 60% of the world’s major marine ecosystems have been degraded or are being used unsustainably, which undermines the ecosystem services upon which growth and human well-being depend, stressing the requirement for robust information and advisory system.

India has recently undertaken the “Deep Ocean Mission (DOM)” that is crafted to explore deep ocean for resources and develop technologies for sustainable use of ocean resources. DOM is aimed at development of technologies for Deep Sea Mining and renewable energy from Ocean and development of Ocean Climate Change Advisory Services, utilizing state of the art ocean observations, on coastal impacts of sea level rise, cyclones, storm surges and waves, and associated ecology for resilience and adaptation. It is also proposed to map the genetic biodiversity of the oceans and generate a germplasm inventory to facilitate well-informed decisions on the conservation of oceanic resources. It is also proposed to increase the Marine Conservation Areas to meet India's commitments to the SDG 14 goal of increasing the areas of conservation to 10%. India is also developing a Marine Spatial Plan with a comprehensive and strategic process analysis to identify marine protected areas to minimise conflicts between human activities and maximise benefits while ensuring the resilience of marine ecosystems.

Research activities include the development of specialized products and services for maritime safety, Search and rescue, oil spill trajectory predictions and mitigations, development of satellite-based low-cost dissemination systems for last-mile connectivity. In addition, efforts to prevent and reduce marine pollution and marine litter, by closely monitoring the surrounding seas, using biogeochemical and litter forecasting models; support towards increasing the marine renewable energy sector for alternative energy sources from offshore winds, waves, currents, tides, and thermohaline structure are being explored to reduce the carbon dioxide emissions.

Sustained ocean observations are crucial to understand complex oceanic processes, its variability, its interaction with the atmosphere and development of operational ocean services for the benefit of the society. The data generated from the observational network will greatly help in developing products and support the blue economy initiatives as well as achieving the goals as envisioned in the UN Oceans Conference. The OON network is designed within the framework of Indian Ocean Observing System (IndOOS), which is a regional contribution to the Global Ocean Observing System (GOOS), an international collaborative effort led by the Intergovernmental Oceanographic Commission (UNESCO-IOC) to establish ocean observation and collect real-time oceanographic data of the world's oceans. It is important that ocean observing programs be sustained and further strengthened with regional and global collaborations for achieving the goals as envisioned in UN Sustainable Development Goals (in particular SDG14) and the UN Decade of Ocean Science for Sustainable development (2021-2030).

An International Training Centre for Operational Oceanography (ITCOOcean) was set up by the Ministry of Earth Science under the ESSO-INCOIS in Hyderabad in 2012. ITCOOcean shares the benefits of operational oceanography to the Indian Ocean Rim countries and other developing nations. ITCOOcean was recognized as Category 2 Centre (C2C) by UNESCO and Regional Training Centre (RTC) by Ocean Teacher Global Academy (OTGA) of IODE. Through these India will continue to contribute to the capacity building activities of India and Indian Ocean Rim in operational oceanography.

India recognises the need of scientific knowledge in understanding of oceans through observing systems, capabilities in modelling, development and transfer of technology. India partners with many countries on the areas of Integrated Ocean Management and framework for marine spatial plans for sustainable development and conservation of ecosystems. It has proposed to establish Sustainable Coastal and Ocean Research Institute (SCORI) at Suva, Fiji to meet the needs and aspirations of the Pacific Island Countries (PIC). Also, India has well established collaboration and partnerships with UN Agencies and Research Institutions for bridging the methodology and data gaps on SDG indicators.

The UN Decade of Ocean Science for Sustainable Development (2021-30) can be used as an excellent framework of collaboration to achieve transformational changes in our understanding of the Oceans and strengthening science-driven policies for sustainable management of the oceans, its resources and mitigating the impact of ocean disasters, including the climate change.

