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Enhancing Coastal Resilience for a Sustainable Future

Managing Risks and Building a Climate Resilient Shoreline in India

February 23, 2023, 2:00 PM to 3:30 PM (IST) | Casuarina Hall, India Habitat Centre, New Delhi

Background

India is highly prone to cyclones, monsoon rainfall variability associated extreme events, and other severe weather events, causing major societal impacts. The country's coastal regions, in particular, are highly vulnerable because of rapid urbanisation, high population densities and related economic activities such as agriculture, aquaculture, tourism, industries and trade. The 7,517-km-long Indian coastline is home to 260 million people (14% of the country's population or 3.5% of the global population), who live in low-lying areas within 50 km of the sea coast and are perennially exposed to 10 climate variabilities and extreme weather events. India has already experienced the impacts of climate change in coastal areas, with an increasing frequency of days with extreme temperature, intense rainfall and tropical cyclones over the period 2009–2014. Intense cyclones such as the Amphan, Tauktae and Fani as well as severe floods have caused massive devastation to its coastal states especially Odisha, Andhra Pradesh, Tamil Nadu and Kerala in the recent years. Many of these coastal states have upgraded their disaster preparedness and response mechanisms, instituting effective early warning systems and well planned evacuation strategies. These measures have helped millions of people safely move to disaster shelters, thereby saving the lives of the vulnerable population of the sensitive coastal ecosystem.

Future climate projections warn that the intensity and frequency of extreme weather events will only increase in the coming years. Given the highly climate sensitive nature of India's coast line the question is whether or not India's coast is equipped to withstand the impacts of these climate change-induced events. Building coastal resilience is imperative while also addressing the needs of local communities. Coastal resilience also needs to go beyond addressing immediate local needs, to building a wider evidence base that demonstrates the business case for increasing investment and securing international cooperation to enhance protection of coastal ecosystems at scale. This systemic resilience-building approach is critical to move the needle from coastal risk to resilience. To move from coastal risk to resilience, different stakeholders will need to work together to engage and support local communities,

increase investment and finance opportunities, and strengthen international cooperation and understanding.

Objectives

This session will bring together key stakeholders, including central agencies like the Ministry of Environment Forest and Climate Change, Ministry of Earth Sciences and National Disaster Management Authority (NDMA), CDRI and meteorological research agencies, to highlight concrete implementation for climate solutions, based on lessons learned on the ground and the latest science, to contribute to a net-zero and nature-positive future, while enhancing adaptation and resilience-building of ecosystems and coastal communities.

The session will emphasise the need to combine climate-smart/resilient and nature-positive actions across sectors to avoid unintended negative impacts (e.g., on biodiversity - such as coastal development destroying coastal wetlands and thus resulting in release of carbon emissions). This session will also discuss opportunities to accelerate action and de-risk mechanisms for the transition via public and private initiatives, public-private partnerships, and other innovative modes of collaboration. Moreover, the session will explore how to elevate the role of science to inform sound policy making, drive investment decisions and steer sustainable business actions in Coastal regions. It will also show how nature-based solutions, large-scale mangrove management, can also contribute to climate mitigation significantly. This discussion also comes in timely as India has assumed G20 presidency to showcase the innovative, proven best practices.