

Supporting national and regional alignment in coral reef management
The Western Indian Ocean Coral Reef IUCN Red List of Ecosystems Assessment

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Abstract

The Western Indian Ocean (WIO) contains 16% of the world's coral reefs, and the region is a globally important hotspot for coral reef biodiversity. WIO coral reefs are estimated to have an asset value of US\$ 18.1 billion. Despite these tangible and intangible benefits, coral reefs are highly threatened, with up to 50% already considered degraded globally. The weight of evidence suggests that increasing local (fishing, pollution, coral diseases, cyclones) and global (warming, acidification) stressors, and their cumulative and synergistic interactionism, give a window of only several decades before possible collapse of this flagship ecosystem, with potential dire consequences on coastal food security, economies, and jobs. Addressing this need, the International Union for the Conservation of Nature's (IUCN) Red List of Ecosystems (RLE) is emerging as a framework to assess the risk of ecosystem collapse. It provides a consistent information base to inform management and policy responses to reduce the risks of ecosystem collapse. The RLE builds on the success of the IUCN Red List of Threatened Species, which for over 50 years has been the global standard for assessing the risk of species extinction. This RLE assessment of WIO coral reefs has produced some important advances: i) an up-to date regional-scale analysis of reef regions most at risk; ii) a diagnosis of the dominant threats among these; iii) increased robustness and relevance of decision-support for coral reef management and policy; iv) updated the coral reef database compiled by the Global Coral Reef Network's (GCRMN) regional network under the Coral Reef Task Force (CRTF) of the Nairobi Convention, and iv) Introduced a novel assessment approach to the region that can be adapted to other critical ecosystems, such as mangroves and seagrass beds.

This paper calls the Nairobi Convention Parties and Secretariat to:

- Build on the findings of the Red List of Ecosystems, the regional report of 2017 and other science to identify priority reef areas requiring effective protection, through protected areas or other effective conservation measures (OECM), thereby addressing international conservation area targets in the Western Indian Ocean in a way that is compatible with sustainable use and equity at local levels.
- Ensure the prioritization of coral reefs and threatening activities within Marine Spatial Planning and Sustainable Blue Economy processes and implementation, in order to resolve local stressors to coral reefs from fisheries and land-based development.
- Capitalise on the findings from the Red List of Ecosystems assessment to stimulate support for national policy processes related to coral reef and marine ecosystem conservation and sustainable management e.g., national coral reef action or management plans and strategies
- Promote the inclusion of the Red List of Ecosystems as a component indicator in the Global Biodiversity Framework of the Convention on Biological Diversity thus establishing its relevance for monitoring Sustainable Development Goal 14 and of national reporting in Convention processes.