



Prioritization of climate refugia in the Western Indian Ocean

Science to Policy Forum for the UNEP/Nairobi Convention for the
Protection, Management and Development of the Marine and
Coastal Environment of the Western Indian Ocean

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Background



- WIO region, most diverse marine and coastal region on the African continent.
- The coastal and marine ecosystems of the WIO are important for livelihoods and national economies.
- Experiencing rapid change
- Climate change in particular is projected to have large-scale impacts
- This combination of local and global stressors is resulting in environmental degradation and undermining the ecosystem services and livelihoods of millions of local people and national economies that rely on these natural resources.



Large-area based management

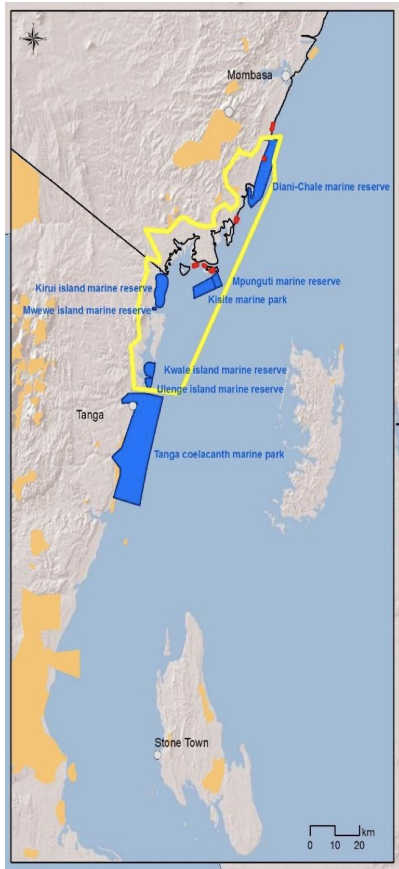


- One solution to sustainably manage coastal and marine resources is to establish MPAs.
- There are 149 MPAs in the WIO, and most WIO countries are signatories to the CBD and have not met their marine and coastal area target of 10% by 2020.
- A crucial policy window the Post-2020 Global Biodiversity Framework, is currently being negotiated by the Parties to the CBD to increase protection to 30% by 2030
- This will require a rapid expansion of marine and coastal protected area coverage for many WIO nations
- Establishing large-scale MPAs such as transboundary conservation areas (TBCA) and other large wilderness sanctuaries is one of the few tools available to achieve this area target.
- The benefits include ecosystem and seascape spatial scale action; conservation and management of ecosystems, species and fisheries stocks that cross national jurisdictions; promotion of integrated management and conflict resolution, and the ability to increase climate resilience on a large scale.
- These large-scale marine managed areas should be prioritized in locations where conditions allow species to persist in the face of climate change i.e. Climate refugia



Potential locations for Climate refugia in the WIO

Locations of climate refugia from studies in the WIO



Map of the proposed
Kenya-Tanzania TBCA

- Biogeography, species distributions, bleaching and other climate related studies have identified several potential climate refugia in the WIO
- Southern Kenya–northern Tanzania currently proposed as a Transboundary Conservation Area
- Southern Tanzania–northern Mozambique - Mnazi bay and Quirimbas MNPs that was established as a transfrontier conservation marine area. It's failure can form useful lessons for the region
- Northwestern Madagascar to Mayotte including the Mayotte Marine Reserve and the two reserves in northern Madagascar, namely Ankarea and Ankivonji are also potential climate sanctuaries.
- Protection of these climate refugia not only confer the benefits of managing at a large spatial scale, but also serve as potential climate mitigation measures



Linkages to national, regional and global processes

There are national, regional and global incentives and linkages for these large- area based protection measures:

1. Marine area-based planning and management
 - Most nations have MPA laws and regulations
 - Marine Spatial Planning is currently ongoing at local (County and District), national and regional levels. This is key as MSP is an important tool in ensuring all sectors are considered in national and regional planning
 - ICZM laws
 - TBCA such as the proposed Kenya-Tanzania TBCA
2. Blue Economy: The next economic frontier but it could also conflict with natural resource management and potentially compete with livelihoods and wellbeing of coastal peoples.
3. Regional and Africa wide commitments including the Nairobi Convention and African Climate change strategies, the African Union (AU) climate strategy and Agenda 2063 AU Blue Economy Strategy
4. Global commitments including the Post-2020 Global Biodiversity Framework and Sustainable Development Goal (SDGs) 14, the Paris agreement, the UN Decade of Ocean Science for sustainable development, International Coral Reef Initiative's call to action





Recommendations for the NC COP

Environmental impacts on the marine and coastal ecosystems of the WIO are projected to increase especially with the drive to develop the Blue Economy and climate change. There is an urgent need to ensure that this is balanced with enhanced ocean governance and mitigation of the threats from climate change. the following actions are recommended:

Technical:

1. Urge member states to evaluate and improve the effectiveness of MPAs across the WIO with a focus on the MPAs in the areas identified as climate refugia.
2. Urge Parties and relevant organizations to collaborate to identify, map, designate and develop management strategies to protect the climate refugia in the WIO.

Policy:

1. Encourage member states to implement approaches that ensure coordination, integration and inclusion of all sectors in developing local and national MSP and BE initiatives
2. Urge Parties when undertaking MSP, marine conservation planning and BE initiatives especially large-scale developments such as ports and oil and gas, to take into account climate refugia.
3. Encourage member states to implement their global and regional binding commitments in the protection and management of the coastal zone and ocean governance.



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