

Coastal Cities in WIO Region: New Opportunities for the Nairobi Convention

BACKGROUND

Coastal cities are more than a collection of people and buildings and form complex systems of habitation, infrastructure, governance and public services. Coastal cities are not demarcated islands and mostly highly dependent on the inflow of goods and services from the surrounding areas. In addition, the volume and concentration of waste from these systems pose significant challenges to city and coastal managers. Cities are significant features of the coastal landscape and often have major environmental impacts which affect local populations reliant on coastal resources, as well as communities and environments beyond their immediate boundaries. Cities are also typically associated with increased and rapid urbanization, with resultant additional pressures on ecosystem services.

Coastal cities are dynamic, complex systems which need energy, water, food and other resources in order to function and support diverse activities. If managed properly cities have the potential to offer better socio-economic conditions and quality of life to residents as well as the wider nation within which they are situated. The integrated adaptive management and sustainable development of coastal cities is therefore essential. Inputs from science, technology, architecture, socio-economic information, and planning, all contributing key insights and perspectives.

Importantly, coastal cities are located at an intersection of climate-ocean impacts. Climate change impacts, particularly rising sea-levels, coastal erosion, wave inundation, and more frequent and severe cyclones have significant adverse impacts on vulnerable communities of coastal cities in WIO region. Large areas of many coastal cities in the region are situated at below 10 meters above mean sea-level making them particularly vulnerable to ocean-climate drivers. There are a number of coastal cities in the WIO region that are projected to be severely affected by rising sea levels, including Dar es Salaam, Durban, Maputo, Mombasa, and Port Louis (UN-Habitat 2014). City dwellers and the vibrant socio-economic activities of cities are already vulnerable to climate impacts from thermal stress, water quality and supply, and increased energy demand.

This inherent vulnerability of cities in the WIO coastal zone is exacerbated by a range of persistent issues including a high incidence of poverty, a low capacity to build and maintain appropriate coastal defences, susceptibility to cyclones, and sandy and erodible coasts. This poses a range of clear risks but also offers opportunities for the development of innovative solutions that are relevant and applicable to similar locations around the globe.

The relationship between environment, society and economy in urban centres are of key importance in the WIO region. In particular, there is a need to better understand these interdependencies, and the associated constraints to achieving the objectives of the SDGs, the Paris Climate Agreement and the Sendai Risk and Disaster Reduction Framework. This understanding should inform planning and decision-making in city environments. The coastal zone of the WIO region hosts major cities, harbours, industries and other development infrastructure that, whilst vulnerable themselves, are increasingly posing threats to the integrity of coastal and marine ecosystems and potentially worsening their own situation.

REGIONAL AND GLOBAL PROCESSES

In the Rio +20 Conference outcome, “The future we want”, cities emerged as the locus for change and the venue where policies are realised. Cities can forge new linkages and pacts among actors, offering innovative solutions that have the potential to influence development agendas at national, regional and global levels. Further, the Rio document recognizes that, if well planned and developed, cities can promote economically, socially and environmentally sustainable societies.

In September 2015, the United Nations Sustainable Development Summit adopted a new framework to guide development efforts between 2015 and 2030, entitled “Transforming our world: the 2030 Agenda for sustainable development”.

The 2030 Agenda contains 17 Sustainable Development Goals (SDGs) and 169 targets. The SDGs address, in an integrated manner, the social, economic and environmental dimensions of development, their interrelations, aspects related to peaceful societies and effective institutions, as well as means of implementation (finance, technology, capacity development etc.).

Of the 17 Goals, SDG 11, *make cities and human settlements inclusive, safe, resilient and sustainable* (Sustainable Cities and Communities), also known as the ‘urban SDG’, recognizes urbanization and city growth as a transformative force for development. This first-ever international agreement on urban-specific development, acknowledges sustainable urban development as a fundamental precondition for sustainable development.

In the SDG framework, marine litter and pollution in coastal and marine environmental are addressed through Goal 14 (target 14.1), with a particular focus on sources from land-based activities. Similarly, goals 6, 11 and 12 target untreated wastewater (6.3), and municipal and other waste management (11.6). Another relevant SDG is Goal 13, which targets the impacts of climate change. There are also other relevant targets/Goals such as 14.a, which focuses on the need for increased marine scientific knowledge and Goal 17, related to partnerships at local, regional, and global levels.

The adoption of the New Urban Agenda (NUA) by UN Habitat in October 2016, and the entry into force of the Paris Agreement on Climate Change in 4 November 2016, represents strong steps toward the immediate implementation of Agenda 2030 for Sustainable Development. Urbanization poses an opportunity for climate change adaptation and mitigation and in order to realize this opportunity, the New Urban Agenda envisages a model where all urban actors adopt and implement disaster risk reduction and management, reduce vulnerability, build resilience and responsiveness to natural and human-made hazards and foster mitigation of and adaptation to climate change [New Urban Agenda, paragraph 13 (g)]. This vision is in line with the shared goals under the Agenda 2030 for Sustainable Development, in particular Goal 11.

In 2010, during the meeting of the Contracting Parties to the Nairobi Convention, the countries of the region approved the Strategic Action Programme (SAP) for the Protection of the Coastal and Marine Environment of the Western Indian Ocean from Land-based Sources and Activities, which was prepared under the auspices of the UNEP-GEF Project on ‘Addressing Land-based Activities in the Western Indian Ocean (WIO-LaB)’. The SAP acknowledged that the coastal zone of the region hosts major cities such as Mombasa, Dar es Salaam, Beira, Maputo and Durban, harbours, industries and other development

infrastructure that is increasingly posing a threat to the integrity of the coastal and marine ecosystems. This SAP identified key actions that need to be undertaken in the region in order to reverse the degradation of the coastal and marine ecosystems.

The WIO region has taken an active role in progressing a regionally coordinated approach to the implementation of SDGs. The Contracting Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment for the Western Indian Ocean Region (Nairobi Convention) agreed during the 8th Conference of Parties (COP8) in 2015 to develop a new work programme for 2018-2022 that incorporates SDGs.

The Nairobi Convention in collaboration with the WIOMSA produced the most comprehensive [Regional State of the Coast Report](#) which was approved by the Eighth Meeting of the Contracting Parties to the Nairobi Convention. The Chapter on '[Urbanisation, Coastal Development and Vulnerability, and Catchments](#)' several recommendations of relevance to cities and coasts are made, including:

- Disaster risk reduction and climate change adaptation must be prioritised in order to better manage extreme events, as well as distinctive slow-onset, semi-permanent changes such as sea-level rise or rising temperatures. Vulnerability and resilience assessments, as well as explicitly human security considerations, are core concerns of disaster risk reduction and climate change adaptation, facing similar challenges;
- Promote and undertake research devoted to exploring innovative and cost-effective ways of addressing the climate problem. A focus on the science of adaptation is of particular interest;
- Encourage and promote robust urban planning processes that seek to reduce the dichotomy between formal governing institutions and networks of actors that provide local capacities. National urbanization policy frameworks must complement local strategies for changes to be quicker and deeper, and this includes identifying various levers by which action can be triggered and sustained. These actions are likely to be enhanced if good science (including the use of new data, methodologies and models), is used to inform policy;
- Reduce the high levels of vulnerability and low adaptive capacity in local governments with poor capacities and resources. Weak local government creates and exacerbates problems including the lack of appropriate regulatory structures and mandates; poor or no planning; lack of or poor data; lack of disaster risk reduction strategies; poor servicing and infrastructure (particularly waste management and drainage); uncontrolled settlement of high-risk areas such as floodplains, wetlands, and coastlines; ecosystem degradation; competing development priorities and timelines; and a lack of coordination among government agencies.
- Existing land-use plans in most WIO countries are inadequate or lacking, and in order to update such plans authorities need to identify and establish the environmental baselines to inform appropriate zoning and take into account the onset of climate change. Mechanisms such as coastal development setbacks and development limits must be incorporated into urban planning and building controls.

Some specific measures include:

- Introducing policy and planning processes to ensure that coastal construction is a safe distance away from the high-water mark, and reinstate natural defence mechanisms with the necessary environmental authorisations;

- Undertaking holistic planning and implementation through the development and implementation of coastal management programmes that incorporate shoreline management plans;
 - Establishing a coastal development setback line which is designed to protect both the natural environment from encroachment of buildings as well as protecting beachfront developments from the effects of storms and accelerated coastal erosion;
 - Working with nature by protecting the integrity of buffer dune systems, which should be vegetated with appropriate dune species, as per the original natural zones, and maintained;
 - Maintaining, or even better, increasing the sand reservoir (volume) stored in the dune system; and,
 - Protecting, restoring and maintaining natural systems like mangroves and coral reefs.
- Mainstream adaptation options into integrated coastal management and sustainable development plans. There is growing recognition that scientists, policymakers, residents, managers and other key stakeholders must work together to establish a framework for adaptation that is mainstreamed into the current coastal management processes and practices.
 - Understand and promote the role of UNFCCC National Adaptation Plans (NAPs) to create national frameworks for multi-scale adaptation, national to local, and specifically for coastal cities.

POLICY RECOMMENDATIONS

1. With the recognition by the UNFCCC Process and the 2030 Sustainable Development Goals, of the role played by cities and urban stakeholders in sustainable development agenda, the role of coastal cities in WIO region in building resilience and reduction vulnerability to natural and human-made hazards, should be recognized and acknowledged by the Nairobi Convention;
2. The Nairobi Convention should recognize coastal cities as additional to national delegations and promote their role in the sustainable development of the coast as a resource;
3. The Nairobi Convention should explore possibilities of establishing agreements/collaborative activities with organizations working on coastal cities such as UN-Habitat, UNFCCC and UNDP.
4. Recognise the role of coastal cities, especially those with ports, for their contribution to national accounts, but also their important role to play in the sustainable development of coastal and marine resources and the contribution of ecosystem services.
5. Explore the role of coastal cities with regards to their contribution to national and regional Blue Economies, as well as recognise the importance of Marine Spatial Planning (MSP) and Integrated Coastal (Zone) Management (ICZM) for cities.