Water Quality Workshop
5th November 2021: 10:00 – 13:00 (EAT)
Virtual meeting: Microsoft Teams
Meeting Minutes

Introduction of the workshop

The Contracting Parties to the Nairobi Convention are implementing the GEF funded project on 'Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities' (WIOSAP). The WIOSAP project implemented by UNEP and executed by the Nairobi Convention is supporting various interventions across the region to reduce impacts from land-based sources and activities and to sustainably manage critical coastal and marine ecosystems. WIOSAP is largely based on the Strategic Action Programme (SAP) that was developed by the project **'**Addressing Land-based Activities in the Western Indian Ocean**'** (WIO-LaB). SAPPHIRE project aims to support and assist the appropriate and formally mandated government institutions and intergovernmental bodies in the region to implement related activities in order to deliver the SAP and to ensure sustainability of efforts and actions toward long-term management of WIO Large Marine Eecosystems as well as the sustainability of associated institutional arrangements and partnerships. ACP MEAs 3 project supports various activities/interventions to enhance environmental governance, strengthen management of marine biodiversity & environment and reduce marine pollution.

During their implementation, the projects have made various achievements ranging from support to on-ground demo projects on various thematic areas (namely: ecosystem restoration, marine spatial planning, MPA management, climate change, ICZM, water quality improvement, river flows assessments and management), development of key regional Guidelines and Toolkits, strengthening science to policy dialogues and capacity building, influencing key policy interventions.

Towards addressing water pollution threats, the implementation of appropriate strategic frameworks and capacity building was considered important, not only to enhance local socio-economic and environmental benefits, but also global environmental benefits. Under Component B of the Project on Improved Water Quality, a *regional Strategic Framework for Coastal and Marine Water Quality Management (C&MWQM)* was considered a sound basis for adopting and integrating C&MWQM into national frameworks. This was planned for in two phases - Phase 1: Development of a Strategic Framework for C&MWQM and Phase 2: Implementation of the Strategic Framework at national and sub-national levels.

The Water Quality Monitoring Framework and Guidelines for the Western Indian Ocean have been developed under Phase 1. To ensure transition to Phase 2 of supporting improved water quality management across the region, the Nairobi Convention under the WIOSAP, SAPPHIRE and

Capacity Building of Multilateral Environmental Agreements in African, Caribbean, and Pacific (ACP) Countries projects has planned for a workshop of Water Quality experts in the region for discussions on cascading and encouraging the adoption and the WQ Framework and Guidelines at country level towards improved quality of receiving waters. The Convention in collaboration with Council for Scientific and Industrial Research (CSIR) organised a workshop on the **5th November 2021** that focused on setting up National Water Quality monitoring frameworks based on the Regional Framework. Countries that are desiring to develop National WQ Monitoring Frameworks/Guidelines will be supported depending on need and national priorities.
The workshop was held virtually due to the continuing restrictions of travel and convening of meetings, and slow vaccination processes resulting from the coronavirus (COVID 19) pandemic which has affected all countries globally.

Welcoming

The meeting started at 09:00Hrs (EAT) with Dr. Bosire welcoming all in attendance and mentioning that the overall objective of the Workshop was on setting up National Water Quality monitoring frameworks based on the Regional Framework that had been developed. He added that countries that are desiring to develop National WQ Monitoring Frameworks/Guidelines would be supported depending on need and national priorities.
He welcomed the Council for Scientific and Industrial Research (CSIR) to present the framework for coastal and marine water quality management in WIO Region.
Susan from CSIR made a presentation that highlighted Strategic Framework for Coastal and Marine Water Quality Management. The presentatiion was done in sections followed by discussion as follows:

i. Strategic Framework for Coastal and Marine Water Quality Management

- Contracting Parties agreed on need for regional & national actions to address stresses on marine environment, including water quality to harmonize monitoring and management - decided to Develop Strategic Framework for Marine & Coastal Water Quality Management (M&CWQM).
- Experience had shown effective activity-based management - within broader ecosystem-based approach - largely dependent on:
  - Formal (activity-based) legislation - provide legal avenue to enforce compliance, although not to exclude incentives to improve
  - Standards, Guidelines and Best Practice Guides - assist decision-makers and managers with practical execution of pollution control, but also enforcing sustainable environmental best practice

- Resource Planning – identify activity-based interventions/action, ensure sufficiently skilled and motivated personnel to perform, equipped with appropriate material and financial resources
- Contingency Planning - pre-emptive planning to mitigate and control potentially detrimental impacts

Discussion

- Erick from asked that where the toxicology data was from. It was mentioned that the data was borrowed from other parts of the work other than from the Western Indian Ocean region. It was added that these could be refined over time.
- Mong from Madagascar asked how national stakeholders could be involved in pollution monitoring. It was mentioned that people could be put together and asked to point where they felt were the major hotspot regions. Susan mentioned that one would start small using the bottom-up approach.
- Richard mentioned that it would be great to see a dissemination outline for the Strategic Framework for Coastal and Marine Water Quality Management. He added that the was need to outline how the strategy can be implemented in countries with capacity challenges, limited resources and personnel. Susan mentioned that dissemination would come during the implementation of the strategy in hotspots. It was added that dissemination should be done to the right stakeholders especially those affected by the pollution.
- Dr. Bosire mentioned that countries that would need capacity building to implement the strategic framework would get support from the Convention on need basis. He added that the exchange of information across the region could be done through workshops and stakeholders' meetings.
- Ayanda asked a question on starting small. He enquired what was the threshold that would be enough to make an impact. Susan mentioned that there was need to know the sources of pollution and the sensitivity of ecosystems in the hotspot area.

ii. **Guidance on Setting Environmental Quality Targets**

The presentation highlighted that;

- It was important to protect Ecosystems from human activities but also other Ecosystem Services depending on suitable environmental quality, such as; Recreation, Eco-tourism, Marine Aquaculture and Subsistence (basic) needs.
- environmental quality targets for coastal and marine environments typically are set for ecosystem protection and important beneficial uses, e.g.: Protection of marine aquatic ecosystems, recreational use, Marine aquaculture (including fishing/ harvesting of seafood) and Industrial uses (e.g., intake for fish processing and cooling water).

- On setting quality targets, it highlighted that these variables should be considered. Physico-chemical variables (e.g., pH, turbidity) and Nutrients (N & P); Characteristics of marine water are site-specific and subject to large natural variability. Toxic substances (e.g., metals, agrochemicals, petrochemicals)- Setting appropriately generic targets for toxicants require large sets of ecotoxicological data – often lacking so use international guidelines derived from comparable databases
- Internationally, sediment targets mostly originate from National Status and Trends Program of NOAA (USA). Microbiological indicators (recreational waters); it would be important to conduct a Sanitary Inspection of issues that may pose additional health and safety risks, e.g., proximity of pollution discharges, industries, waste dumps, etc.
- It added that the following principles should always be considered aimed at maintaining highest quality:
- Precautionary approach to be followed include; Pollution prevention, Waste minimization, Re-cycle and re-use and best available/best attainable technologies

Discussion

- Erick enquired how it would be possible to divide areas into sensitive, slightly impacted and disturbed ecosystems. Susan mentioned that this could be done at local level after involving stakeholders.
- Mong enquire if the data could be replicated in other sites. Susan mentioned that the data are site specific and could only be replicated in sites that share the same characteristics.
- Richard mentioned that there was need to use the national standards and use the international standards where there are no national standards.
- Jane inquired what could be done with ecosystems that have reached tipping points and have no reference data. Susan mentioned that one could look for another similar area where pollution hasn't taken place and find ways of how to fix the tipped area.

iii. **Environmental Quality Monitoring & Assessment**

The presentation highlighted that;

- There was a differentiate between baseline assessments and long-term monitoring programmes; Baseline assessments - shorter-term, intensive investigation on wide range of environmental parameters to obtain understanding of ecosystem processes and functioning while Long-term monitoring - ongoing data collection programmes to continuously evaluate compliance and effectiveness of management actions using key indicators.
- Baseline assessments usually include wide range of parameters to obtain better understanding of ecosystem functioning (usually in response to potential effects from specific activities/uses – Environmental Impact Assessment Studies)

- Typical data collected for baseline assessments includes; Physical processes (e.g., water circulation and sedimentation processes) influencing transport and fate of pollutants, Chemical processes, natural chemical patterns, extent of existing pollution and behaviour of pollutants and Marine Ecology, characterising biota potentially impacted by EQ.
- Long-term/compliance monitoring - ongoing data collection programmes to evaluate continuously effectiveness of management strategies/actions, e.g.: Monitoring of specific pollution sources (e.g., effluent discharges) and status of receiving marine environment (compliance), Beach water quality - assess suitability for recreational use) 'Mussel Watch' programme - long-term trends in toxicant accumulation, Marine litter monitoring - e.g., African Marine Litter Monitoring Manual (2020) and Dredge monitoring – assess toxicant composition to inform disposal practice (e.g., linked to London Convention)
- It noted the template for Pilot Testing Implementation Framework, including regional Quality Objectives and Targets:

    - Context
    - Information requirements of pilot site/s, e.g.:
        - Zoning of beneficial uses and sensitive ecosystem
        - Zoning of pollution sources

    - Use recommended Quality Targets to start (interim QT)
    - Information gathering on site-specific Water and Sediment Quality Data
    - Evaluate data against interim QTs for compliance
    - Key Findings and refinement of QTs for pilot site/country

Discussion.

- Mong mentioned that they are doing monitoring in Madagascar according to the capacity they have at hand. There are no standards for receiving waters and their data is compared to the interim target value. Susan mentioned that's practical since it helps understand the system and this would be used have the context of the pollution sources and current movements.
- Ayanda mentioned that South Africa has different departments with different mandates and tend to structures their monitoring to suit their objectives hence making integration and collaboration difficult. Susan mentioned that the problem would be fixed by enabling people to share information, pool resources and monitoring done as a whole.
- Ian asked how far down the percentile could one go in pristine areas without affecting the ecosystem. He added that Seychelles was preparing reviewing the code of practise and regulations and the workshop was very timely for the country's needs.
- Richard mentioned that Tanzania had a stakeholder meeting once in a year to harmonize and iron out water issues and problem in the country.

iv. **Recommendations for Way Forward**

The presentation outlined a number of recommendations as follows;

Policy :

- Contracting Parties (CP) adopt Regional Strategic Framework for C&MWQM, including Guidelines Environmental Quality Targets
- CP adopt Framework & Guidelines at Country-level, as appropriate
- CP formally establish Regional Task Force for C&MWQM (currently project-level task force under WIOSAP)
- CP establish National C&MWQM Task Forces to facilitate and coordinate C&MWQM and status reporting at country-level

Technical;

- Secretariat work with partners to develop capacity building programmes in support of effective implementation of Strategic Framework C&MWQM in WIO Region

- Recommend Nairobi Secretariat facilitate follow-up regional capacity building workshops (linked to technical recommendation)
- Countries bring progress on pilot studies to share amongst one another
- Advisors (e.g. CSIR) assist countries with guidance on improvements, where required
- Countries share problems experienced and further support needs
- Identify possible regional-level support mechanisms to assist countries
- Consider annual capacity building workshops - provide regional platform for continuous support, sharing and learning as pilot studies on Coastal & Marine WQ Management programmes are rolled out to other marine pollution hotspots in countries

Discussion

- Richard mentioned that there was need to make the documents known at the country level with the help of the Nairobi Convention.
- It was mentioned that there was a need for a regional task force for water quality at the convention level.

Closing

There being no other matter, the meeting ended at 13:00Hrs (EAT) with Dr. Bosire thanking all for creating time to attend and contribute in the workshop.

In attendance

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