Strengthening regional regulatory frameworks and national capacities for handling marine biodiversity data in the Western Indian Ocean

–Technical and policy recommendations on data handling and sharing standards–

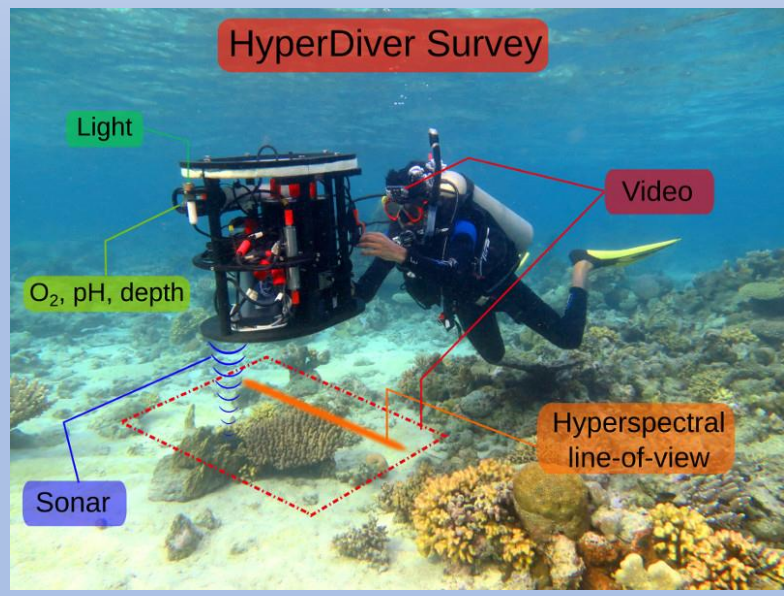
Authors: Christopher Muhando Rushingisha George, Theuri Mwangi, David Obura, Arthur Tuda, Daudi Msangameno, Hauke Kegler, Hauke Reuter.

The Ocean and its biodiversity is one of the human's most important life-support system

- It contains diverse and productive marine ecosystems
- supports essential food sources,
- stabilises the climate and
- economically supports an immense marine and maritime industry
- carries enormous ecological and economic value
- Supports livelihoods of millions of coastal inhabitants.

To sustain the ecological services

- **address potential competing interests** about spatial use,
- **carefully manage** the fragile ecosystems and conflicts
- **Gather relevant or priority data** (regular (automated) through monitoring, scientific studies, citizen science, open-source technology, satellite and other remote sensing efforts) – to ensure evidence-based management.
- **Use New Digital Technologies in data handling**, including opportunities to model and predict changes in ocean and biospheres systems
- **Use faster methods** to analyse and share data and information, e.g., internet-based atlases and similar tools
- **Involve as many stakeholders** as possible in the process of marine data gathering and processing (such as policymakers, scientists, local communities, small-scale fisheries, tourism, maritime sector, etc.)



Issues in providing data

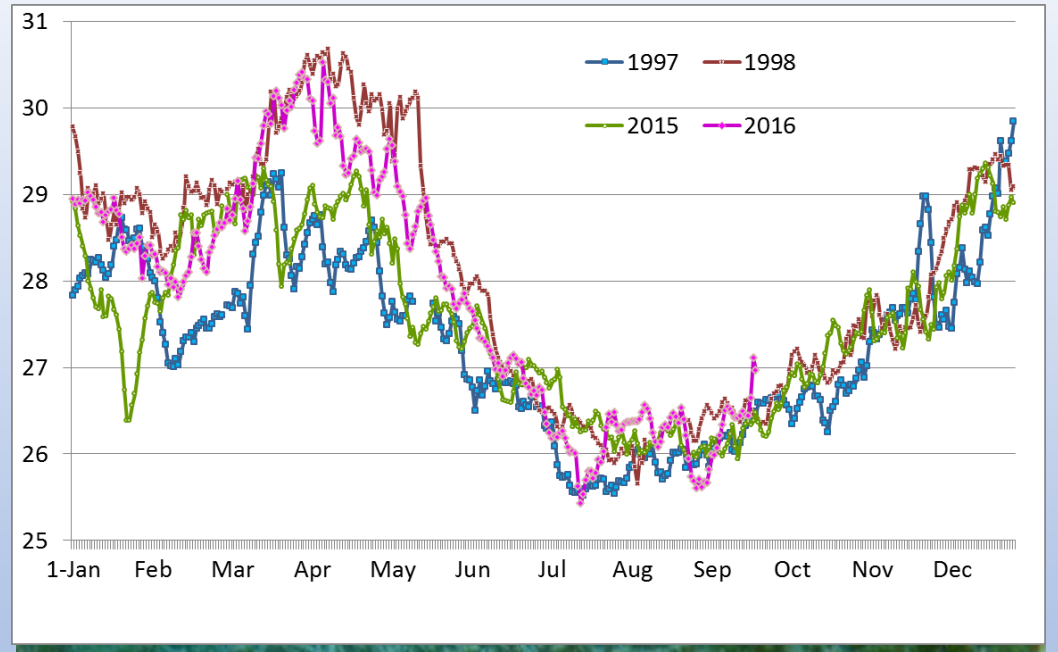
- It is **still difficult to get hold of data and get results in the hands of decision-makers** in a format that is relevant and helpful to make sustainable management decisions.
- There are **technical and logistical constraints**:
  - Inadequate institutional and governmental **policies**,
  - general issues in **knowledge sharing** that hinder the collection and sharing of in-situ biodiversity data.
  - expert **taxonomy knowledge** and detailed guides are missing in many geographic areas
  - Lack of **standard methods**

Issues in providing data

- **The existing marine worldwide operable databases may not provide applicable knowledge at national operational levels**, for individual habitat, e.g., coral reef management.
- Viable and usable marine species and biodiversity **databases relevant at national level are missing** in some WIO countries
- common **monitoring strategies and essential variables** (biodiversity and taxonomic data) **not yet identified and agreed**

Issues in providing data

- As natural calamities, climate change and human pressures increase, **species extinction or reduction in population number is likely to be high** in WIO countries, with **negative effects on ecosystem services.**



The subject matter being addressed

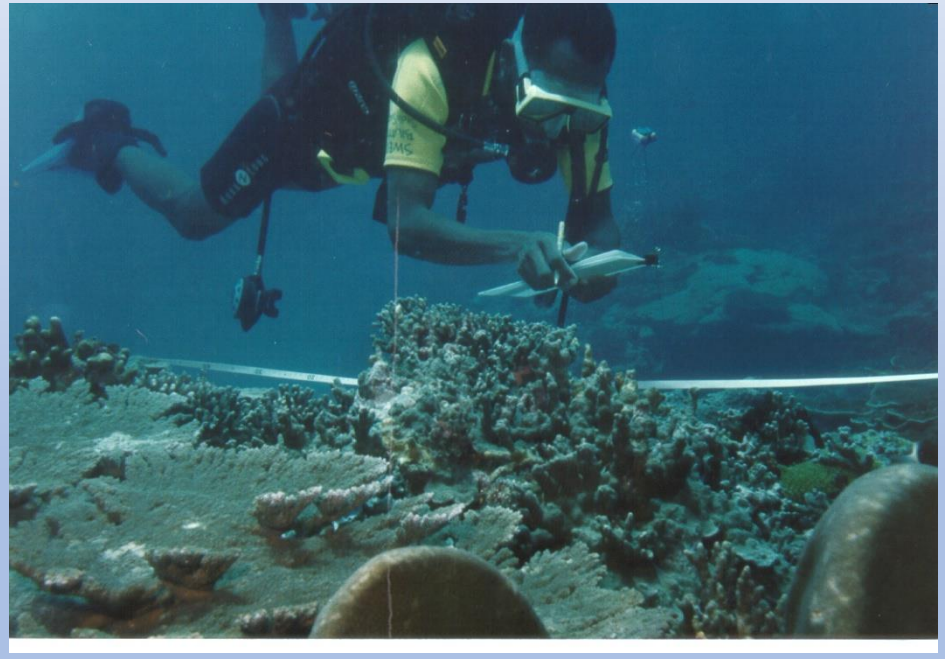
- **Timely, adequate and accurate biodiversity data** is essential for informed and science-based decisions
- Ensure scientific projects generate **primary data and knowledge in acceptable standards**
- Assessment of **potential risks to biodiversity** by development projects including local activities
- **Contributions** to coastal and marine spatial planning **(MSP) and EIA efforts**

The subject matter being addressed …..

- **Reach out and provide simplified data** and information to small fishing communities.
- Resource managers, policy and decision-makers may **need to be trained**
- **At the regional level**, policymakers may use biodiversity **data for regional ocean governance**, i.e. creating strategies to manage and conserve transboundary marine ecosystems.

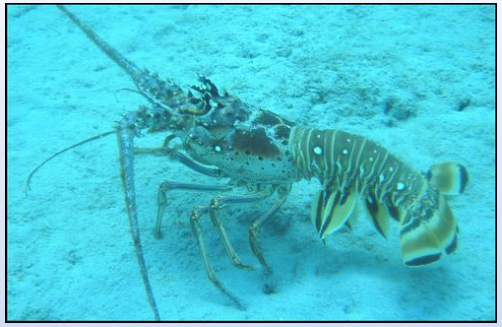
The subject matter being addressed ……

- Add value to **existing monitoring efforts and expand spectrum** of marine biodiversity datasets
- **regional regulatory frameworks** regarding biodiversity monitoring, data management and sharing are in place.
- The proposed framework address themes of the Nairobi Convention, a) it **adds critical information to MSP efforts** and data management, b) **simplify ecosystem monitoring and ecosystem approaches to fisheries.**



The overall aim of this process

- The overall aim is **to develop a roadmap vision** for the Western Indian Ocean region to **become a model region** for the monitoring, handling and sharing of marine biodiversity data for sustainable resource use, in support of the Nairobi Convention and its member states.
- There are many pressing issues in biodiversity data handling and sharing that have not been resolved yet.



Technical recommendations

- We are recommending for the establishment of a **regional expert panel on marine biodiversity** information needs and handling/sharing strategies.
  - **An exchange platform for policymakers and researchers** to co-design and co-implement projects, as well as discuss data needs for adaptive and timely management solution.
  - Create a **database of experts** on marine biodiversity
  - **develop concepts**, observed variables, data collection methods, sampling frameworks
  - **Test concepts and frameworks** in identified model regions
  - **Support the development of technical, taxonomical and methodological capacities**

Policy recommendations

Regionally align biodiversity and taxonomic data collection, reporting and sharing through common frameworks and Formal agreements to facilitate timely data sharing and increase reporting to stakeholders

Enable science-policy interactions to help prepare society to respond to changes in marine ecosystems.

Policy recommendations …..

- **Increase the comprehensibility of research findings**.
- **Workshops to train scientists and data collectors** in effective sharing methods, i.e. compelling narratives, visual tools, field trips, or storytelling techniques.
- **Governments to seek for alternative funding pathways**, e.g. through public-private partnerships.

Concluding Remarks

- We ask national governments start **designating representatives in the proposed regional inter-sectoral expert panel.**
- Those representatives would ideally **be part of already existing initiatives** such as the Nairobi Convention Clearinghouse Mechanism or the National Focal Points of the Convention on Biological Diversity.
- Through regular exchanges this community of practice could co-design the necessary regulatory frameworks and propose **best practices**.

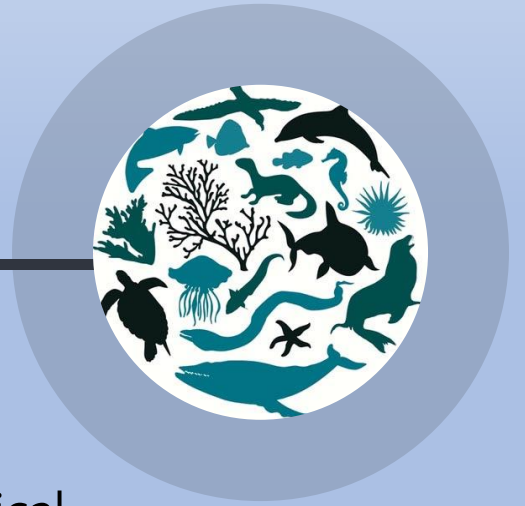
Establish a regional inter-sectoral expert panel

Create a database of experts

Develop regionally aligned frameworks for monitoring, data analysis and training initiatives

Develop technical, taxonomical and methodological capacities of researchers and decision-makers

Improved biodiversity knowledge



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Thank you!

ASANTE SANA!

DANKESCHÖN!