OVERVIEW OF OCEANOGRAPHIC DATA AND RESEARCH FOR IMPROVED OCEAN GOVERNANCE IN THE WESTERN INDIAN OCEAN REGION

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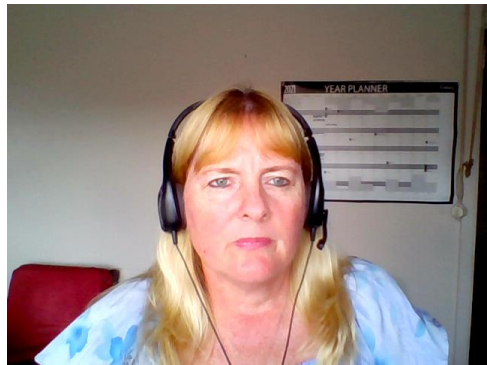
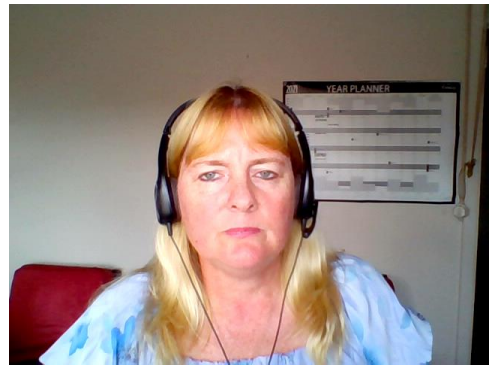
INTRODUCTION

- Ocean governance underlies the concept of Sustainable Ocean Economy which is one of the desirable outcomes for the UN Sustainable Development Goal 14.
- Ocean governance requires knowledge which is obtained from data and information.
- The data we need come from oceanographic and other ocean-related research
- In October 2020 UNEP-ROA hosted the Second Consultative Meeting on the Development of an African Strategy for Ocean Governance
- The meeting recommended that each State should designate a national science and research institute for the blue economy and ocean governance that would undertake research, gather and analyse data to inform policy dialogues, formulation and implementation.



- For the UNEP-NC regional stocktaking workshop on oceanographic research and data in the WIO Region held in Mauritius in May 2019, we prepared a couple of working documents on the status of oceanographic research, data and information for long-term monitoring of the ecosystems in the Western Indian Ocean.
- This paper consolidates the essential messages in those reports necessary for the Science to Policy discourse.



WHO IS CONDUCTING OCEANOGRAPHIC RESEARCH IN THE WIO REGION?

State of the Coast Report

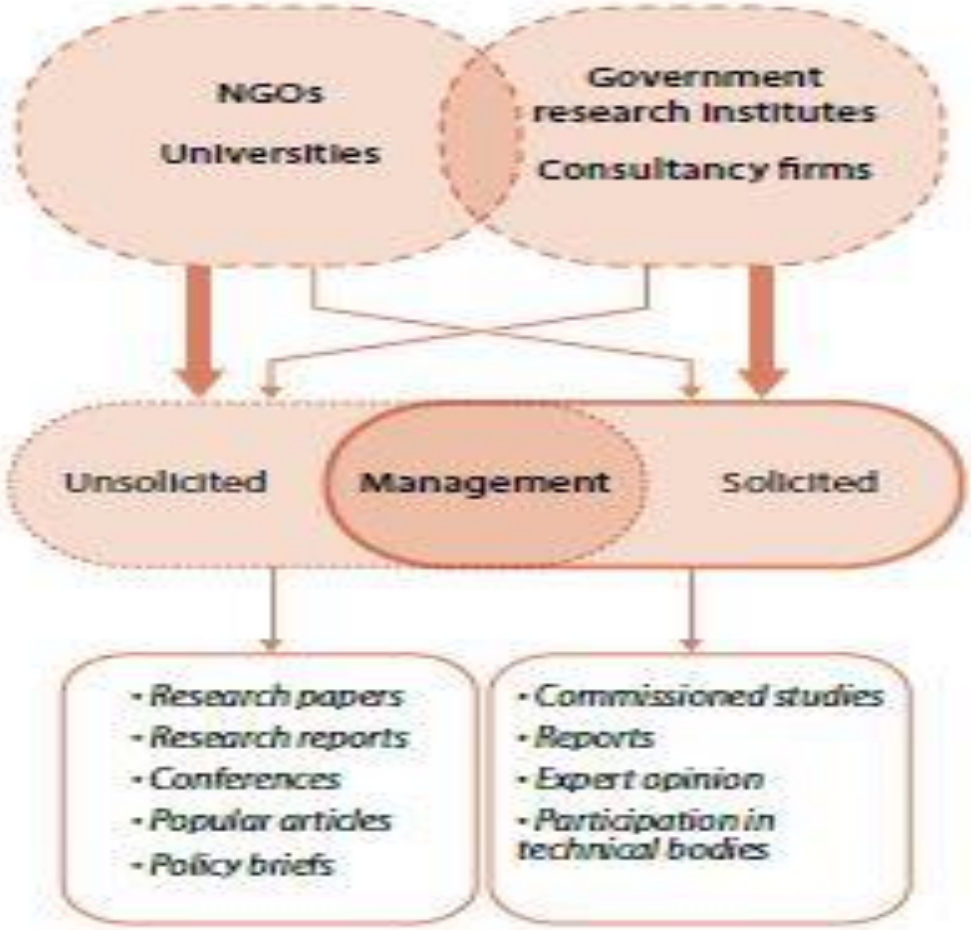
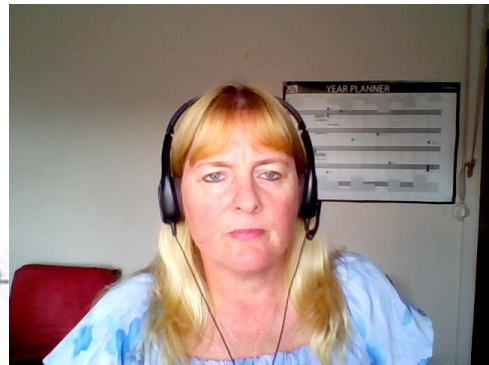
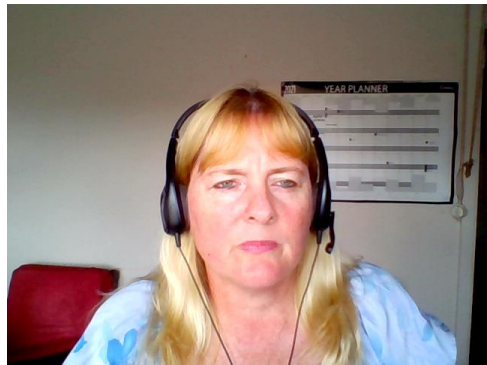


Table 35.3. Research and academic institutions in the WIO region (those with degree programmes in marine sciences are bulleted).

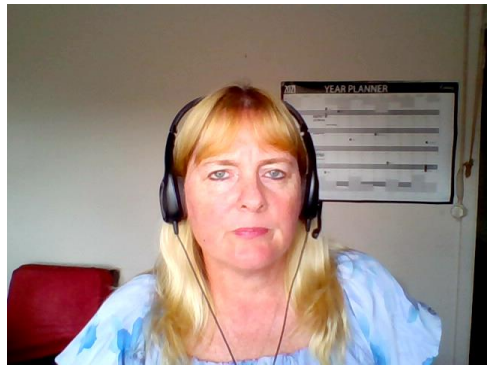


- The national bodies collect fisheries and oceanographic data in home waters and monitor Essential Ocean Variables (EOVs) necessary to establish and/or assess ocean mean-state and variability.
- They work in major disciplines like fisheries science and management, oceanography, ecology, primary production, etc; a few also look at socio-economics, ocean governance, and recently issues related to blue economy.
- At Regional Level, there are donor-assisted initiatives (e.g. the Norway/FAO Nansen Programme, French institutions like IFREMER and IRD) that collect oceanographic data and information mainly using research vessels.
- On a global scale there are institutions (e.g. National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA) both of USA), that collect ocean-related data mostly through the use of satellite technology or buoys.

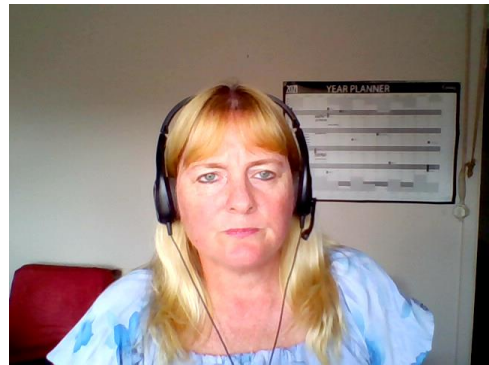


DATA MANAGEMENT FOR OCEAN GOVERNANCE

- From the above, data and information are not scarce in the WIO region but the management and access to these is what can be described as problematic.
- Often the national datasets are generally scattered over more than one national institute and stored on local servers or desktop computers making such datasets not easily discoverable, and often not accessible or readily available.
- Since data collection has cost associated with it, free access is not always attractive or feasible.
- In certain jurisdictions agreements exist to protect organisations involved in data and information gathering and sharing, to regulate the relationships between the parties.

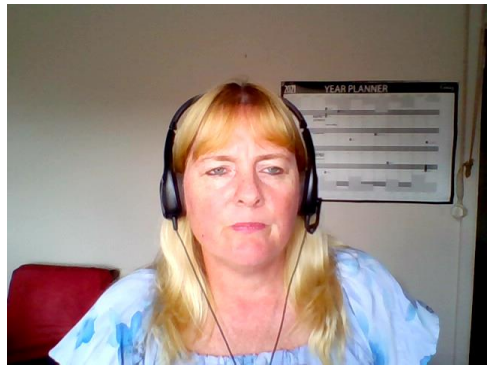


- These agreements are intended to avoid potential uncertainties between parties and they clarify the nature and scope of the relationships.
- Examples are:
  - The Nansen Data Policy (to guide and regulate access to the data collected during the R/V *Dr Fridtjof Nansen* surveys).
  - The ASCLME data management agreement (outlines the principles and guidelines for ASCLME data and information management).
  - WIOMSA data policy to help reduce duplication of investment in data, and also ensure that WIOMSA data contributes to a regional pool of knowledge.

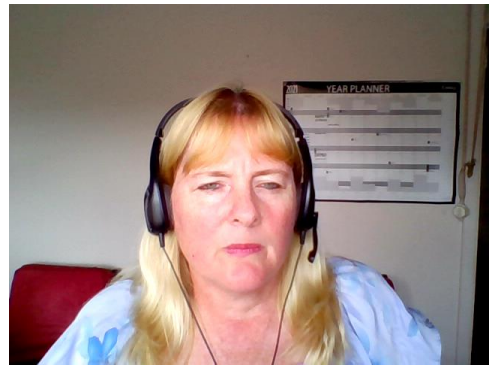


OCEAN DATA CENTRES

- Effective data management requires the services of Data Centres whose primary functions include securing, storing and disseminating data.
- The IOC/UNESCO IODE and ODINAFRICA programmes established national data centres which were further developed during the ASCLME Programme with the mandate to manage all ocean-related data.
- At the Mauritius consultation, it became evident that although almost all the data centres are still functioning, many are facing several challenges that include lack of financial resources and adequate human capacity.

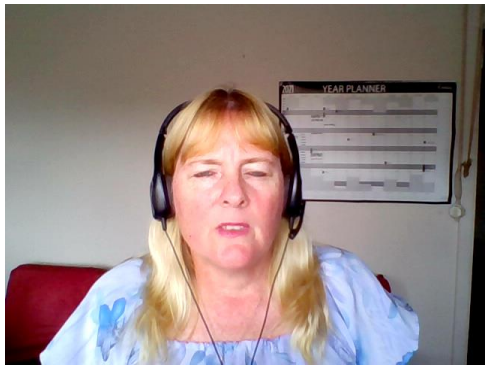


- There was a call to have the data centres function under the SAPPHIRE Project, as specified in the project document.
- The data centres must be made to be demand-driven and there is a need to establish trust in them in order to encourage use of their facilities.
- In line with the African Strategy for Ocean Governance, the data centres need to be financially supported by governments and their operations are to be mainstreamed in the workplans and budgets of the host institutions.



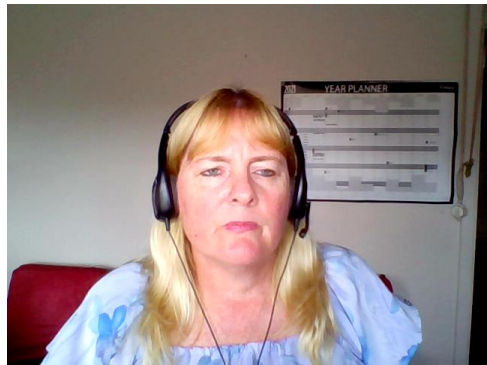
REVIVING THE DATA CENTRES UNDER SAPPHIRE

- Assess the current status of each data center and the facilities; categorise data needs and take stock of the required data for each category.
- Identify sources of data (nationally, regionally, and internationally)
- Agree on a metadata format and prepare the metadata of the data and information.
- Select a data portal (i.e. "a list of datasets with pointers to how the datasets can be accessed".
- Prepare data sharing protocols (with national, regional and international institutions).
- Prepare clear Data Policy (define ownership, access, patent, etc.).
- Prepare communication and data sharing procedures.
- Mainstream management of the data centre within national/institutional workplans and budgets.



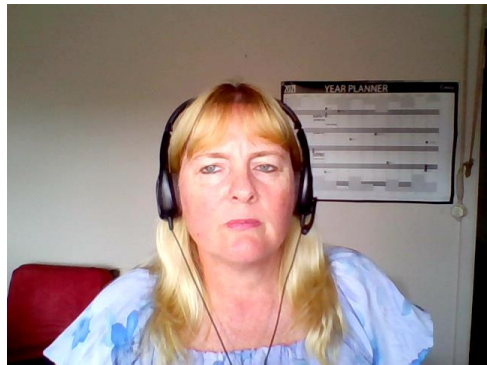
CONCLUSION

- In view of the UN Decade of Ocean Science for Sustainable Development, revitalization of oceanographic data centres in WIO countries is imperative to ensure effective management and sharing of the data we need for the ocean we want.
- The WIO countries need not move to the same level, but they should all be able to improve to enable them meet the demands of their users (government/scientists) (products-driven).
- Data management should be the core function of the data managers and not side jobs over and above scientific duties.
- There is a need for regional data portal; the Nairobi Convention Clearinghouse Mechanism (NCCHM) was proposed as a viable option.



RECOMMENDATION

- The Contracting Parties of the Nairobi Convention should request the Secretariat to support the strengthening of National Data Centres through the following actions:
  - Prepare an action plan for further development and support of National Data Centres as provided under the SAPPHIRE project.
  - Support capacity development initiatives aimed at strengthening the capabilities of the National Data Centres as well as the data managers.
  - Ensure that linkages between National Data Centres and regional mechanisms such as the Nairobi Convention Clearinghouse Mechanism are established for efficient and effective sharing of, and easy access to regionally-relevant information.



Thank You