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**Western Indian Ocean Regional Science to  
Policy Workshop**

*27-29 May 2019*

*Port Louis, Mauritius*

**Kenya Marine Fisheries Research Institute (KMFRI) Experiences  
And Engagement In Oceanographic Data Management And  
Scientific Research  
(28 May 2019)**

In the WIO region, Kenya Marine Fisheries Research Institute has a long history in the interventions initiated for the development of data management and research capacity building. The Intergovernmental Oceanographic Commission of UNESCO and its IODE programme have been key players in this process. The IODE capacity building activities in Africa were started in 1989 with the Regional Cooperation in Scientific Information Exchange (RECOSCIX-WIO) project. This evolved into the Ocean Data and Information Network for Africa and has built on this foundation to bring together more than 40 institutions in 25 African coastal states.

Kenya has taken a formal position on the value of R&D for national development by passing into law the Science, Technology and Innovation Act of 2012, which mandates a 2 per cent GDP spend on R&D. The Kenya Marine and Fisheries Research Institute is listed as an institution to which the act applies.

More universities in the region are now offering postgraduate degree programmes in areas of marine and coastal science and associated resource management disciplines. For instance, in Kenya, the number of universities that teach courses with a marine and coastal focus has increased from one before 1980 (ie University of Nairobi) to more than five.

The Kenya – Belgium Programme in Marine Sciences started in 1985 and involved the Free University of Brussels (VUB) and the KMFRI, resulting in the training of a number of Kenyan students to Masters and PhD level. The programme also supported a number of studies in Kenya undertaken by Kenyan and Belgium scientists. It also equipped laboratories at KMFRI.

There has been some milestones in moving forward the agenda of enabling Science into policy formulation. Since 2001, successive Conference of Parties (COP) have taken a series of Decisions aimed at reinforcing the science-policy dialogue:

- Decision CP 4/9. (Strengthening Partnerships and the Institutional Mechanism of the Nairobi Convention, 2004) directed the Secretariat to take up the offer of WIOMSA to establish the Forum for Heads of Academic and Research Institutions (FARI)
- Decision CP7/17 (Science to Policy Engagements, 2012) requested the Secretariat to hold and encourage partners to support regular science to policy dialogues
- Decision CP 8/12 (Establishment of a Platform for Science to Policy Dialogue) agreed to establish a dialogue platform to strengthen the links between science, policy, and action

### ***Several Initiatives to enhance the WIO regional research and data management***

#### ***Engagement forums***

A Workshop conducted at South Africa 13 March 2019 geared towards Strengthening Ocean Observing in Africa (SOOA). The meeting sought to strengthen GOOS-AFRICA and links with IOGOOS and other GOOS Regional Alliances and ensure that there is coordination and open

communication between East African countries and SIDS to maximise the opportunities. This was also an opportunity to discuss the IOC Ocean Decade to ensure that there is a strong African voice.

### ***Data management***

The Kenya Marine and Fisheries Research Institute (KMFRI), which is also the National Oceanographic Data Centre for Kenya, runs the national OBIS node for Kenya. Websites: <https://obis.org/node/aa56c74b-90ba-461d-b117-2b384571993b>

### ***Capacity building forums***

On the 18th to 27th of April 2016, a workshop was organized by the Kenya Marine and Fisheries Research Institute (KMFRI) and the Flanders Marine Institute (VLIZ) in order to jumpstart the deployment of **RV Mtafiti** and thereby the advancement of marine science in the WIO region. The workshop was sponsored by VLIR-UOS, VLIZ, KMFRI and IOC Africa

The aim of the workshop was to:

- create a critical pool of staff in the WIO-region (and beyond) with the capacity to effectively undertake oceanographic research using RV Mtafiti and to act as scientific campaign leaders for their scientific crew during research cruises;
- ensure the cost-effective use of ship time and guarantee the excellence and quality of data as well as samples collected during surveys and therefore maximize the benefits to be gained from cruises undertaken using RV Mtafiti;
- create awareness of the availability of RV Mtafiti for regional research campaigns and promote the deployment of RV Mtafiti for joint research and education projects.

The OTGA/KMFRI/UNEP Marine Spatial Planning 2018-OceanTeacher course was held at KMFRI on the 10th to 14th of September 2018.

The objective of the training was to Increase collective capacity to respond to change and challenges in coastal and marine environments through further development of science based management tools such as Integrated Coastal Area Management, Marine Spatial Planning, and Large Marine Ecosystem Approach;

The OTGA KMFRI: Research Data Management Training Course was held on the 3rd to 7th July 2017 at Kenya Marine and Fisheries Research Institute, Mombasa Station Mombasa, Kenya. The course objectives were to provide comprehensive training in research data management in order to lay the foundations for a common approach for research data management amongst researchers, repositories and facilities (including libraries) that manage marine data, thereby helping to ensure that the data is accessible, standardized and maintained over time.

## Bio Details

*Dr. Joseph Nyingi Kamau is a senior research scientist and the Assistant Director (Oceanography and Hydrography) at the Kenya Marine Fisheries Research Institute. His research interest is in establishing the fate and pathway of pollutants in the environment. He is a chemical Oceanographer focuses on understanding the underlining processes driving a systems productivity via biogeochemical study. He is part of a consortium headed by Addis Ababa University under the Eastern and Southern Africa Higher Education Centers of Excellence Project (ACE II). He is the principle Investigator (Kenya component) of a regional project funded by the Global Challenges Research Fund (GCRF). The project is entitled "Sustainable Oceans, Livelihoods and food Security Through Increased Capacity in Ecosystem research in the Western Indian Ocean (SOLSTICE-WIO). He is also a honorary member of the Golden key International.*

***HARRISON ONG'ANDA** Joined KMFRI in October 1988. Graduated with a Bachelor of Science Honours in Mathematics and Statistics, 1988 from the University of Nairobi. Received a Master of Science degree in Marine Ecology in 1992, at the Free University of Brussels, Belgium. Has been involved in ocean data management activities since 1995. This includes the IOC-UNESCO International Ocean Data and Information Exchange (IODE) activities, and the UNEP Nairobi Convention Clearinghouse Mechanism. The content management approach in both initiatives bears great similarities such as use of portal platforms, free and open access to data among others. Is presently the Coordinator of the Kenya National Oceanographic Data Center (KeNODC), as well the coordinator of the IOC-UNESCO OceanTeacher Global Academy (OTGA) Regional Training Center (RTC) for the English speaking countries in Africa. Has conducted through the OTGA RTC, training on a number of courses on data and information management including the Marine Spatial Planning held in Mombasa in 2018, GIS and Remote Sensing held in Zanzibar in 2018, Research Data Management held in 2017, among others. Has extensive skills in applications of Remote Sensing and GIS applying to management of marine and costal ecosystems. Is a member of several multidisciplinary research teams in KMFRI and the region including the South West Indian Fisheries Project (SWIOFP) of the Wolrd Bank, and Agulhas and Somali Current Large Marine Ecosystem (ASCLME) project of the UNDP. Has been a member of editorial teams for a number of book publications including the latest Kenya State of the Coast report, 2018. Aspires to continue serving in similar positions and more.*