SAIHC17 MSDIWG Annual Report 2022

To: Members of the IHO Southern African and Islands Hydrographic Commission (SAIHC)

Subject: ANNUAL REPORT: MARINE SPATIAL DATA INFRASTRUCTURE (MSDI) WITHIN THE SOUTHERN AFRICAN AND ISLANDS HYDROGRAPHIC COMMISSION (SAIHC)

19th April 2022

Background, Introduction and purpose

1. During SAIHC15, noting IHO activity under the IHO-MSDIWG, the Commission agreed to establish SAIHC-MSDIWG. UK was elected to chair this working group and compiled initial Terms of Reference (TORs) and Rules of Procedure (ROP), with input and support from the SAIHC group.
   The purpose of this document is to provide a short annual report for the Southern African and Islands Hydrographic Commission (SAIHC 18), as an output identified in the SAIHC-MSDIWG TORs. The report focusses on activity during and since SAIHC 17 with a look forward to SAIHC 18 MSDIWG, which will be held as a hybrid meeting in Maputo from 10th – 12th May 2022.

Terms of Reference (TORs)/Rules of Procedure (ROP)

2. SAIHC recognised the importance for all Member States to communicate and collaborate in support of Seabed 2030 activity. Previously there was no dedicated Point of Contact (POC) within SAIHC for this activity, so the SAIHC MSDIWG was assigned as interim coordinator which was incorporated into the TORs. During SAIHC 17 however, South Africa was endorsed as the coordinator for Crowd Sourced Bathymetry/Seabed 2030. As such, minor amendments to the TORs have been edited in red text and ~~strikethrough~~ . For ease of reference the proposed amended TORs/ROPs are included at **ANNEX A** to this report.

Current status of MSDI within SAIHC

3. The SAIHC MSDI Working Group has achieved some success provided links to training, on line training overviews and MSDI featured previously as a key part of the Hydrographic Governance Workshop.
   As previously reported, there are a number of MSDI and Marine Spatial Planning (MSP) initiatives across the region that have been identified by SAIHC MSDI group. These are highlighted again, if members know of any further developments, please alert the MSDIWG:

a. The Seychelles Marine Spatial Plan (MSP) Initiative – This is a process focused on planning for and management of the sustainable and long-term use and health of the Seychelles Exclusive Economic Zone (EEZ). The EEZ encompasses 1,374,000 km2 of ocean and 115 islands. The MSP Initiative is a government-led process, managed by The Nature Conservancy (TNC) and TNC Canada in partnership with Government of Seychelles – UNDP GEF Programme Coordinating Unit (PCU).
https://seymsp.com/the-initiative/

b. Marine Spatial Atlas for the Western Indian Ocean (MASPAWIO) - An open access geospatial data repository for the Western Indian Ocean.
MASPAWIO provides access to marine spatial datasets, providing data layers useful for marine spatial planning, management and research, from multiple primary and secondary sources, contributing compiled information into other regional and global repositories. This initiative covers 11 key countries in SAIHC/NIOHC region.
http://maspawio.net/

c. African Coastal and Marine Atlas (ICAN) Has a functioning portal - http://www.africanmarineatlas.org/

d. BIOPAMA - The BIOPAMA project aims to build a solid information base for decision making on protected areas in the Africa, Caribbean, Pacific (ACP) region. This repository, based on GeoNode, is part of the BIOPAMA Reference Information System. Here you can discover and use maps, reports, data and other information sources, and upload your own to share with others. The themes of data you can find here cover a broad range of natural resource management and related topics.
Core development is by the Joint Research Centre of the European Commission, based in Italy. Our project partners IUCN are working with regional institutions to set up Observatories, which will use GeoNode to help share important data.

e. Nairobi Convention - Marine Spatial Planning Workshop Held at Kenya marine and fisheries research Institute (KMFRI). Held in September 2018. The aim of the workshop was to enhance capacity in science-based management tools such as Integrated Coastal Zone Management, Marine Spatial Planning, and the Large Marine Ecosystem Approach to promote better responses to challenges in coastal and marine environment.
https://wedocs.unep.org/bitstream/handle/20.500.11822/26353/Marine_Spatial_Planning_Report.pdf?sequence=1&isAllowed=y

These may be just a fraction of what is underway within the SAIHC region and communicating to our commission and providing links to these projects could foster future collaboration.

Current status of implementation within SAIHC

4. Members are encouraged to report MSDI implementation as part of their national report updates at the next SAIHC18.

IHO MSDI activities

5. The IHO-MSDIWG12 last met virtually on 17th and 18th March 2021. Key points to note as follows:

    a. IHO MSDIWG 2021 was an entirely online event given the pandemic's prevalence at that time, which reduced the capacity for discussion around the broader aspects of MSDI.
    b. The group welcomed the presentations from external stakeholders including, but not limited to, Denis Hains on Hydrospatial, Simon Riopel on Arctic (M)SDI, and Jamie McMichael-Phillips on Seabed 2030. External contributions were seen as crucial for maintaining the group's awareness of wider developments allied to or related to MSDI implementations.
    c. The updates from the OGC on the upcoming Federated MSDI (FMSDI) project, S-100 for MSP, UN-GGIM IGIF updates, and the IHO-Singapore Innovation & Tech Lab were welcomed by the group. The group affirmed its ambitious and forward-looking Work Plan to 2024, including an update of C-17 with alignment to IGIF-H and identifying key OGC Standards for the MSDI community.
    d. The link to IHO MSDI WG meeting is https://iho.int/en/msdiwg12-2021 MSDIWG13 will convene as a Hybrid meeting in Singapore. This coincides with SAIHC18 (9 to 13 May 2022).

Training and Capacity Building requirements and opportunities

6. There is nothing new to report from a training perspective since SAIHC17. Please provide your training and capacity building requirements relating to MSDI, either within the national report update, through the SAIHC Capacity Building Coordinator lucy.fieldhouse@ukho.gov.uk or direct to SAIHC MSDIWG Chair Tim.lewis@ukho.gov.uk

Related MSDI activities and successes

7. SAIHC MSDIWG Chair has been working closely with the African Great Lakes & Rivers Sub-Working Group (AGL&RsWG) since SAIHC17. We are pleased to report that following discussions with World Bank representatives and Royal Haskoning, we have successfully retrieved World Bank funded hydrographic surveys of Bukoba, Jinja, Kemondo Bay, Kisumu, Mwanza and Port Bell in Lake Victoria which were carried out in 2018. There will be more details on this during the AGL&RsWG at SAIHC18.
8. SAIHC MSDIWG Chair wrote to members of the AGL&RsWG to better understand any data portal requirements to support this working group. MSDIWG Letter 2/2021 refers. This will be a focus of discussion at the aforementioned Sub-Working Group at SAIHC18.

Future initiatives

9. The Integrated Geospatial Information Framework (IGIF)-MSDI Maturity Framework is being developed in conjunction with the UN, IHO, Open Geospatial Consortium (OGC) and World Bank, with representation from Denmark (IHO MSDIWG Chair), Singapore (IHO MSDIWG Vice-Chair, UN WG- Marine Geospatial Information (MGI) Co-Chair), and the United States (UN WG-MGI Co-Chair).

10. As a compact and accessible document, its intent to provide a more quantitative and prescriptive “Quick Start” or “Stepping Stone” for nations beginning their IGIF-aligned MSDI implementation plans. The current World Bank SDI Diagnostic Toolkit with its proven Terrestrial heritage is being augmented with IHO and OGC insights to maximize its benefits to the Marine community, whilst being aligned with the UN IGIF principles and United Nations Sustainable Development Goals (UN SDGs) as a result. The involvement of the World Bank is crucial in providing answers to the funding question (including business cases), alongside Why (UN), What (IHO), and How (OGC).

Actions and next steps for SAIHC 18

11. SAIHC next steps will be discussed and developed during the SAIHC 18 MSDIWG hybrid meeting.

12. Actions: SAIHC 18 MSDIWG is invited to:

    a. Note this annual MSDI report,
    b. Consider and update the WG on any MSDI activity in the SAIHC region,
    c. Endorse minor amendments to TORs at Annex A,
    d. Provide requirements for data portal through the African Great Lakes & Rivers Sub-Working Group.

Annex A – REVISED (2022) SAIHC MSDIWG TOR and ROP

Terms of Reference for the Southern African and Islands Hydrographic Commission Marine Spatial Data Infrastructure (MSDI) Working Group (SAIHC-MSDIWG)

(Raised during SAIHC15 28-30 August 2018, Seychelles)
(Status - reviewed by and including contributions from SAIHC Members during SAIHC15, revised October 2019 to incorporate coordination of Seabed 2030 activity for SAIHC region)

With referencing to
• IHO Resolution 5 - 2009 on MSDI policy, adopted by the 4th Extraordinary International Hydrographic Conference in June 2009
• 1st HSSC Meeting (Singapore, October 2009)
• Marine Spatial Data Infrastructure Working Group (MSDIWG)
• Guidance for Hydrographic Offices IHO Publication C-17 - Edition 1.0

The SAIHC at its 15th Conference, recognised the need to initiate a study of MSDI in the region to identify areas where maritime SDI implementation is underway and where problems can be foreseen, and how the SAIHC member states see the future development of MSDI in the region and whether co-operation between MS can facilitate this development. ~~During the 16th Conference, the SAIHC recognised the importance for all Member States to communicate and collaborate in support of Seabed 2030 activity. This activity is coordinated by SAIHC-MSDIWG~~.

The Working Group should:
• Identify and analyse the current status of individual MS MSDI implementation.
• Consider MSDI policies within the related international projects e.g. e-navigation, MSP.
• Analyse how maritime authorities can contribute their spatial information and the necessary updates, so information can easily be collated with other information to a current overall picture for the region.
• Focus on how SAIHC in the future can benefit from a regional approach.
• Monitor the specification and development of SDI that could be relevant for the SAIHC region.
• ~~Consider and coordinate MS activity towards Seabed 2030.~~
• Provide support, where possible, to the SAIHC Crowd Sourced Bathymetry (CSB) and Seabed 2030 Coordinator.
• To present a yearly report to the SAIHC at its conference. This report should include a description on the current status, recommendations on how to proceed with the MSDI implementation and if deemed necessary an action plan with specified time schedule for future SAIHC and SAIHC-MSDIWG actions.
• Identify any SAIHC capacity building requirements on MSDI.

Rules of procedures:
• All SAIHC Members and Associate Members are encouraged to participate to the SAIHC-MSDIWG and to contribute to the work of the SAIHC-MSDIWG.
• The SAIHC-MSDIWG should be chaired by one of the Member States elected by the SAIHC MS.
• The SAIHC-MSDIWG should work as far as possible in accordance with existing guidelines and recommendations issued by the IHO and IMO.

• The SAIHC-MSDIWG should consult Task Groups, Committees and Working Groups or other relevant bodies, as deemed necessary.
• The SAIHC-MSDIWG should inform relevant (notably adjacent) RHC's with the aim to coordinate within the other regions as far as possible.
• The work of the SAIHC-MSDIWG will be carried out primarily by correspondence (via e-mails). The members are encouraged to reply without unnecessary delay.
• The SAIHC-MSDIWG Chair, can on request coordinate SAIHC MS views on MSDI topics and present them at the IHO MSDIWG. The SAIHC-MSDIWG Chair can select a representative to present on its behalf as appropriate.