Marine Geospatial Information Management in South Africa

Presented by Alfons Van Craeynest

South African Navy Hydrographic Office

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Marine Geospatial Information Management in South Africa

South Africa has initiated a project to identify spatial data for the marine and coastal sphere in support of the Integrated Geospatial Information Framework-Hydro. The integration of the terrestrial and the marine sphere is a priority to ensure that institutions collaborate and together consider, develop, and build interoperable frameworks, standards and infrastructures for the integration of all types of geospatial information.





South Africa's Ocean Vision

"A productive, healthy and safe ocean that is accessible, understood, equitably governed and sustainably developed and managed for the benefit of all."





Operation Phakisa

- Operation Phakisa launched in South Africa in July 2014;
- a cross-sector programme engaging various stakeholders across public, private sectors and academia;
- to unlock the economic potential of South Africa's oceans;
- ultimate goal of boosting economic growth and create jobs;



The Need for Marine Spatial Planning in South Africa

- Maintain a healthy ocean as a basis for socio-economic development,
- Increase coordination and integration between sectors to reduce conflicts and enhance synergies,
- Provide planning security for public and private sector investment,
- Encourage and attract innovation,
- Contribute to greater food security.

MSP provides the spatial foundation for a sustainable ocean economy.

Working together to make sure the right activity occurs in the right place at the right time.





The South African Marine Spatial Planning Act

- provides a framework for marine spatial planning in South Africa;
- provides for the development and implementation of marine spatial plans;
- provides for governance of the use of the ocean by multiple sectors.

Government Gazette REPUBLIC OF SOUTH AFRICA				
	Vol. 647	Cape Town Kaapstad	06 May 2019	No. 42444
	THE PRESIDENCY		IHHOVISI LIKAMONGAMELI	
	No. 641	06 May 2019	No. 641	06 May 2019
	It is hereby notified that the President has assented to the following Act, which is hereby published for general informa- tion:—		Ngalokhu kwaziswa ukuthi uMongameli usewuvumile loMthetho nosewuzoshicile- lelwa umphakathi:—	
	Act No. 16 of 2018: Marine Spatial Plan- ning Act, 2018		Ino. 16 ka 2018 [,] HMthetho wokuHlelwa KweNdawo	



Marine Area Plans

A Marine Area Plan is a plan developed within a marine area by analysing and allocating the spatial and temporal distribution of human activities in South African Waters to achieve ecological, economic and social objectives.



- South Africa's Marine Planning Areas divided into four smaller bio-geographic areas.
- EEZ is seaward boundary and outer limit of the Marine Planning Areas
- The landward limit is the high-water mark.



South Africa's Marine Spatial Planning Goals





Implementation of MSP in South Africa

- The Marine Spatial Planning National Working Group (MSP-WG) is a technical working group responsible for practical MSP implementation in South Africa.
- The WG consists of members from National Departments, Agencies or other statutory bodies with marine mandates in the following sectors:
- Transport
- Tourism
- Environment
- Mineral and Petroleum Resources
- Energy
- Wild Fisheries and Aquaculture
- Research
- Telecommunications
- Marine Heritage

• Naval Defence - The South African Navy Hydrographic Office actively participates and contributes to the MSP National WG.

Oceans and Coastal Information Management System (OCIMS)

- Decision support for the effective governance of South Africa's oceans and coasts.
- The system forms part of the **Operation Phakisa Oceans Economy Programme** endorsed by the South African Government.
- The South African Navy Hydrographic Office supports the successful implementation of Marine Spatial Planning (MSP) and OCIMS by providing access to well maintained hydrographic data and metadata.



www.ocims.gov.za



Oceans and Coastal Information Management System (OCIMS)

OCIMS

What is OCIMS?

- System of systems A one-stop-shop
- It is NOT a data repository
- Comprises of a Core System
- Decision Support Tools (DeSTs)
- Data searching for any oceans and coastal related information
- Document Library

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The South African Committee for Spatial Information

- Established under the South African Spatial Data Infrastructure Act.
- Facilitates, promotes and safeguards an environment for efficient collection, management, distribution and use of spatial information.
- The South African Navy Hydrographic Office participates in subcommittee meetings and contributes to the maritime theme.

Piloting 10 Base Dataset Themes:

- Administrative Boundaries (determination of an accurate official coastline dataset for South Africa under review HW/LW marks)
- Imagery
- Transport Maritime
- Social Statistics
- Land Use
- Land Cover
- Cadastre
- Hydrology
- Geodesy
- Conservation Areas



Base Dataset Themes

- 14 Global Fundamental Geospatial Data themes include Transport;
- South African National Department of Transport is the Base Data Set Coordinator for the Transport Theme;
- Transport networks cover four modes i.e. road, rail, maritime and civil aviation;
- undergoing assessment to align with the UN-GGIM.





Marine Spatial Data Infrastructure (MSDI)

- South Africa is in the process of establishing an MSDI.
- Requires greater future coordination between activities of the IHO/SANHO and UN-GGIM.
- The UKHO is the Chair of the Southern African and Islands Hydrographic Commission MSDI WG established in 2018. The WG is carrying out initial research into related activity in the region regarding training and support through capacity building.





SEABED 2030 – Crowd Source Bathymetry – Nippon Foundation

The South African Navy Hydrographic Office (SANHO), in collaboration with the International Hydrographic Organisation (IHO), supports the GEBCO Seabed 2030 initiative and its vision to fully chart the world's oceans by 2030. In order to realise the initiative, the SANHO has extended an invitation to various organizations to be part of this global initiative.

The SANHO, as the national custodian of bathymetric data and the official charting authority for the RSA, will be responsible for the managing, processing and rendering of crowd sourced bathymetry (CSB) datasets. SANHO is the Crowd Source Bathymetry/Seabed 2030 Coordinator for Southern African and Islands Hydrographic Commission (SAIHC).

South Africa to participate in a pilot project towards Seabed 2030 by deploying 100 data loggers in South African waters on-board board vessels of opportunity for the collection of bathymetric data.





Organizatio

SEABED 2030 – Crowd Source Bathymetry

Some of the role players identified for data collection:

- Fishing (commercial)
- Recreational boating (fishing and diving charters)
- Government Vessels (SAN and Research vessels)
- Small scale / subsistence fishing community
- Private sector





Thank You!