



AFRIGEO SYMPOSIUM MARINE & COASTAL SESSION REPORT

SESSION 5A: Technical Presentation and Panel on Marine and Coastline, Mining and Oil Exploration, Fishing and Pollution

8th of October 2025 from 2:15pm to 4:30pm

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Report

The Marine and Coastline Management session at the AfriGEO Symposium, was co-organized by GEO Blue Planet, bringing together regional experts, decision-makers, and stakeholders to address pressing challenges facing Africa's coastal and marine environments.

The session highlighted the importance of Earth Observation and Prediction data in supporting sustainable coastal development, marine ecosystem protection, and climate resilience. Through interactive presentations and panel discussions, participants heard presentations on innovative tools and collaborative strategies for monitoring coastal erosion, managing fisheries, and enhancing early warning systems for marine hazards. This was highlighted by high-level presentations on strengthening regional capacity and fostering partnerships to ensure that data-driven solutions are accessible and actionable for coastal communities across the continent. This included the regional cooperation towards sustainable marine and coastal management from UNEP's Regional Seas under the Abidjan Convention; the African Union strategy for our ocean and the United Nations Decade of Ocean Science for Sustainable Development (2021-2030), 'Ocean Decade' strategy for Africa to engage and collaborate outside the traditional communities to trigger nothing less than a revolution in ocean science. Use cases and inspiring example included the African Union's GMES & Africa (MarCNoWA), Marine and Coastal Service operational tools such as early warning alerts for fishermen, illegal fishing detection systems, and oil spill monitoring services to support stakeholders across North and West Africa; Contributions of Earth Observation Data and the Role of West African Regional Coastal Observatory (WARCO) to strengthening coastal resilience in West Africa by ensuring the production, analysis and dissemination of high-quality, relevant, up-to-date, harmonised and easily accessible data, knowledge and information.

Solutions and innovations around the continent and beyond included the partnership approach of the UNEP led Global Environment Monitoring System on ocean (GEMS ocean) with partners to make available relevant data, analysis, and information guiding action to scale up Ocean and Coastal Observation and Monitoring to support decision making and sustainable management of ocean and coastal areas; GEO Blue Planet's Sargassum Information Hub and how it's bringing Sargassum-impacted communities together to share data, research, and knowledge, and ultimately find workable solutions to the challenges posed by the proliferation of Sargassum mats; How the Digital Earth (DE) Africa Coastline Dashboard, technical support and user engagement and support, is driving usage of the DE Africa services and engaging with the DE Africa network of partners across Africa. The Esri ArcGIS Living Atlas of the World and how the public, private and nonprofit sector helps Esri's African user community leverage Geographical Information System (GIS) to address environmental, social & economic challenges, with a focus on sustainable development, agriculture and food security. Ocean Prediction Enhancement in Regions of Africa (OPERA) a new EU sponsored project under the Ocean Decade collaboration centre on OceanPrediction has been introduced as one to enhance scientific and digital capacities in ocean monitoring and forecasting to support the sustainable management of marine resources. Strengthening the ocean prediction capabilities and cooperation at national, regional and pan African levels in sub-Saharan Africa.

The session concluded with a panel on Earth Intelligence for Marine and Coastal Management, centering on three themes: mobilizing citizen and youth participation to supply ancillary data for EO services; enabling regional bodies to drive government uptake of EO tools in resource management; and forging public-private collaborations that make data accessible across sectors for decision-making.

Panelists underscored the need to move beyond short-term pilots towards mainstream national platforms, anchored in clear standards and licensing and reinforced by regional pooling of infrastructure and skills. They highlighted practical collaboration models that keep core datasets and foundational tools openly available, while sustaining innovation through tiered services offering reliability, analytics, and enterprise support. Emphasis was also placed on interoperable APIs, sandbox co-development, and

embedded capacity-building so ministries can operationalize EO for fisheries management, coastal planning, and hazard preparedness. Collectively, these approaches accelerate the journey from data to impact for Africa's coastal communities.

Recommendations

1. Collaboration and cooperation across initiatives is recommended among the various services and innovative solutions to ensure sustainability and impact.
2. It is recommended that regional engagement be actively pursued in the design and integration of Earth Observation (EO)-driven solutions and services across Africa. This approach will foster collaboration, ensure appropriate relevance, and enhance the sustainability and scalability of EO applications tailored to the continent's diverse environmental and socio-economic challenges.
3. Require government ministries to mainstream budgeting EO as core infrastructure, not add-ons; adopt continent-aligned data/metadata standards (SAFE/FAIR) and a simple regional EO marine scorecard to track adoption and impact from time to time.