

NEWS BRIEF



COES WIO participants on a field trip in Kwale. © Technical University of Mombasa



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STRENGTHENING MARINE CONSERVATION CAPACITY IN MOZAMBIQUE: ANAC, WIOMSA AND NAUTILUS SIGN STRATEGIC MOU



Karen Allen, Pejul Calenga and Celia Macamo at the signing ceremony

A major milestone for marine conservation in Mozambique was marked on the 9th of December 2025 in Maputo, during the official launch ceremony of the National Capacity Development Programme for Marine Protected Area (MPA) Professionals.

The event gathered **more than 60 participants**, including representatives from public institutions, civil society organizations, cooperation partners, academia, the private sector and other key stakeholders in the conservation sector.

This national programme will be implemented through a **tripartite strategic partnership** between the **National Administration of Conservation Areas (ANAC, IP)**, **Nautilus Conservation**, and the **WIOMSA**. The initiative aims to strengthen both technical and institutional capacity for the effective management of Marine Protected Areas

in Mozambique, contributing directly to national and international conservation targets and the sustainable use of marine ecosystems.

WIOMSA's Contribution Highlighted

WIOMSA was represented by **Dr. Célia Macamo**, member of the WIOMSA Board, who highlighted the organisation's long-standing work to advance marine conservation and capacity building across the Western Indian Ocean (WIO) region.



In addition, **Dr. Damboia Cossa** presented **WIO-COMPAS**, WIOMSA's flagship professional certification programme for MPA practitioners. She emphasized that WIO-COMPAS:

- **Recognizes competencies** based on real, practical experience
- **Builds skilled, confident, and accountable conservation professionals**
- **Strengthens the professionalisation of the MPA workforce** across the WIO region

She also noted that the first Portuguese-language WIO-COMPAS training was recently held in Mozambique, during which two Mozambican candidates successfully achieved certification — an important foundation for scaling-up national capacity development efforts.

Representing Nautilus Conservation, **Karen Allen** underscored the importance of this Memorandum of Understanding (MoU) in enabling the National Capacity Development Programme to build the skills of individuals,

but also to strengthen the conservation sector by providing practical, locally relevant training. She highlighted that the Programme's training component would be implemented through the Academy of Marine Conservation Leadership, as part-time and accredited technical professional training courses, delivered in Portuguese.

The ceremony concluded with an address by **ANAC's Director General, Pejul Calenga**, who stressed the importance of this partnership in addressing the professional and institutional capacity challenges faced by Mozambique's conservation sector. He emphasized that the programme is grounded in the country's local realities and field-level needs, while ensuring alignment with national, regional and international conservation commitments — including **Global Biodiversity Framework Target 3**.

WIO RESTORE | By Vera Horigue

– SUPERCHARGING RESTORATION WITH CORAL BABIES

A new Coral Research & Development Accelerator Platform (CORDAP)-funded initiative, “Sustaining coral reef restoration outcomes in the Western Indian Ocean through multi-level governance engagement (WIO RESTORE)” is kicking off in the Western Indian Ocean (WIO). Supported by CORDAP’s CAP 2024 programme, the project strengthens coral restoration science and governance in Kenya and Madagascar while building capacity that extends across the wider WIO region.

Acropora species. spawning © Peter Harrison, ACIAR Coral Restoration Project



WIO RESTORE focuses on mass coral larval

enhancement – collecting coral spawn during mass spawning events, rearing millions of coral larvae and reintroducing them to degraded reefs using innovative delivery systems. Led by Southern Cross University (SCU), these methods make restoration more scalable, cost-effective and climate smart.

This approach is proven. First developed and tested in the Philippines, [mass larval enhancement](#) is now used at multiple sites there, on the Great Barrier Reef in Australia and in the [Maldives](#) through another CORDAP-funded project. WIO RESTORE will adapt these methods to the WIO in collaboration with local partners, managers and communities.

This project uniquely integrates cutting-edge restoration science with governance, policy and finance. Alongside field trials, the team will map the institutions, laws and funding structures shaping coral restoration in Kenya and Madagascar and co-develop a regional governance roadmap for equitable, long-term scaling.

The project is led by Dr Arthur Tuda (WIOMSA), with a core partnership including:

- [Prof Peter Harrison](#) and [Dr Dexter dela Cruz](#) – leading larval restoration R&D and delivery innovations;
- [Prof Gildas Todinanahary](#) – guiding field implementation and community partnerships in Madagascar;
- [Dr Juliet Karisa](#) (KMFRI) – anchoring work within Kenyan research and policy; and
- [Dr Vera Horigue](#) (Macquarie University and WIOMSA) and [Atty Yvonne Waweru](#) (Global Ocean Accounts Partnership) – leading governance and policy integration.

A major feature of WIO RESTORE is the south-south collaboration with researchers from the Philippines joining the WIO team to share experience, lessons and training.



For more information about WIO RESTORE

Contact Dr Vera Horigue (Macquarie University) at vera.horigue@mq.edu.au

To learn more about the project, visit the [website](#).

HIFADHI BLU COHORT 1 CONVENES IN MOMBASA

The first Hifadhi Blu cohort meeting was held on 26 to 27 September 2025 in Mombasa, Kenya, bringing together the inaugural four grantee sites – Mombasa Marine Park and Reserve, Kenya; Seychelles Marine Parks (Seychelles Parks and Gardens Authority), Addo Elephant National Park marine protected area (MPA), South Africa; and Mitsamiouli–Ndroudé National Park, Comoros.



Convened immediately ahead of the 13th WIOMSA Scientific Symposium, the two-day workshop served as an important milestone in shaping the programme's emerging community of practice.

Each site presented its project vision, shared innovations and engaged in peer reflection on monitoring, gender integration, co-management and adaptive systems thinking. Project teams compared approaches, discussed shared challenges and identified opportunities for peer-to-peer learning during implementation.

Kenya Wildlife Service presented a highly structured project focused on developing a fully participatory, gender-inclusive management plan for Mombasa Marine Park and Reserve. This includes stakeholder consultations, updated ecological baselines, a GIS-supported resource inventory and a long-term spatial planning process. The team highlighted a detailed monitoring framework with indicators for training, ecological surveys, governance processes and data integration.

SANParks presented an innovative approach to strengthening enforcement and ecological monitoring in the Addo Elephant National Park MPA, an area heavily affected by illegal abalone harvesting. Central to this project is the installation of a fixed radar and thermal-imaging system to detect and track vessel movements at night, allowing for targeted, intelligence-driven patrols. The monitoring plan includes vessel tracking, staff training, SCUBA-based abalone surveys (the first in over a decade) and community outreach in high-risk areas.

The Seychelles Parks and Gardens Authority shared a project centred on strengthening data governance systems across four of Seychelles' iconic marine parks. Its aim is to enhance staff capacity in ecological monitoring, habitat mapping, statistical analysis, enforcement and social research. The monitoring plan integrates indicators across biodiversity, enforcement and social dimensions and highlights its commitment to institutional resilience.

WILDTRUST and Agence Parcs Nationaux des Comoros presented an early-stage, but strategically significant project focused on establishing the first functional co-management system for the Mitsamiouli–Ndroudé National Park. **The focus now is on contracting, clarifying roles and aligning partners.** Teams were trained to use the MARECO Toolkit. Gender integration began immediately, with the co-management committee structured to ensure 50 percent women's representation and youth inclusion.

Several themes emerged across all four sites – the need for feasible monitoring systems, the importance of gender-responsive and community-anchored approaches and strong demand for structured learning exchanges – particularly enforcement, data management and co-management.

SCALABLE IN ACTION

The SCALABLE programme undertook a series of impactful activities from July to September this year, shaping the future of marine and coastal sustainability in the Western Indian Ocean (WIO).



Activities included grantee meetings and a range of capacity development initiatives in Mozambique, South Africa and Zanzibar. By advancing knowledge, fostering science-to-policy linkages and strengthening regional capacity, these efforts are generating a ripple effect of positive change across the region.

Highlights included [working group](#) grantee meetings to review their first year of activities. Participants presented their research progress, highlighted challenges and discussed expected outcomes. The [commissioned research](#) grantees also convened to review progress. Focused on critical themes of the Blue Economy, the grantees shared achievements including workshops conducted in Seychelles, Zanzibar and Kenya, as well as high-level engagements with the Kenya Ports Authority.

A training session titled “Effective Science Communication for Western Indian Ocean Scientists: Bridging the Gap between Science and Society” was held in Maputo, Mozambique, from 28 July to 1 August 2025. Hosted by Eduardo Mondlane University’s Centre of Studies in Oil and Gas Engineering and Technology, it aimed to equip scientists and related professionals from the WIO region with practical science communication skills to make scientific knowledge more accessible, relevant and impactful. A total of 20 participants from nine WIO countries attended, selected from nearly 300 applicants.

Another training session, titled “Building Bridges between Science, Policy and Society: Co-designing Solutions for Ocean Sustainability,” was an immersion into collaborative efforts for sustainable solutions. Held from 11 to 15 August 2025 in Cape Town, it combined expert-led sessions with interactive group work, case study analysis and peer-to-peer learning to foster meaningful engagement and co-creation.

A third training session, titled “Systematic Conservation Planning,” in Zanzibar from 1 to 5 September, aimed to equip a diverse group of conservation technical experts, policymakers and policy specialists with the skills and collaborative frameworks necessary to create and implement systematic marine conservation plans.

These diverse activities and training initiatives exemplify the SCALABLE programme’s commitment to advancing regional knowledge, fostering effective science-policy connections and promoting a sustainable blue economy in the WIO.

BUILDING BRIDGES BETWEEN SCIENCE, POLICY AND SOCIETY | *By Maya Pfaff*

The South African National Biodiversity Institute (SANBI) Research Centre in Cape Town buzzed with energy earlier this year when 23 ocean and environmental professionals from across the Western Indian Ocean (WIO) gathered for a unique five-day journey of discovery, collaboration and creativity.



The course, *“Building Bridges between Science, Policy and Society: Co-designing Solutions for Ocean Sustainability”* was an immersion into collaborating for sustainable solutions.

The WIO is celebrated for its marine biodiversity and vibrant coastal communities. Yet, it faces mounting challenges: overfishing, coastal development, pollution and escalating impacts of climate change. Conventional approaches to addressing these issues have often leaned heavily on science, producing knowledge but not always solutions that resonate locally. This workshop flipped the script.

Funded by WIOMSA-SCALABLE and hosted by SANBI and partners, including Nelson Mandela University, the University of Cape Town, the International Ocean Institute of Southern Africa and Germany, the Leibniz Centre for Tropical Marine Research and IOC-UNESCO, the training aimed to equip participants with the mindset, tools and practical experience needed for co-design.

The programme combined expert-led sessions with interactive group work, case study analysis and peer-to-peer learning. Participants were introduced to principles of systems thinking and transdisciplinarity; tools for stakeholder engagement and balancing power dynamics; methods for integrating indigenous, local and scientific knowledge; approaches for effective communication across diverse audiences; and strategies for embedding long-

term impact into project planning. Drawing on experience, participants role-played a typical consultation meeting, discovering how easily voices can be marginalized and how powerless this feels.

Practical activities brought the concepts to life with the emphasis on knowledge, skills for facilitation, listening and conflict resolution. The group visited the Langebaan Lagoon Marine Protected Area on South Africa's west coast, where they explored the realities of balancing biodiversity protection with community needs and industrial development.

Shifting focus to embedding impact and communication, participants practiced “elevator pitches” to sharpen how they articulate their projects to funders, community leaders or government officials.

The course closed with a sense of excitement and commitment. **Participants gained networks, practical tools and a fresh perspective on their own roles as bridge-builders.** The hope is that this new perspective will be embedded in projects, policies and everyday practice and will contribute to a growing community of practice of co-designing solutions for resolving complex sustainability challenges in the WIO region.

WIOMSA TEAM WINS SECOND PLACE AT OCEANS HACKATHON

| By Thando Mazomba and Obakeng Molelu

On a windy weekend in October, the Cape Town southeast wind ushered in hackers participating in the Oceans Hackathon Cape Town, hosted by Ocean Hub Africa (OHA) in collaboration with WIOMSA.



The WIOMSA team



As part of a global initiative across ten locations and nine countries, this year's global edition involved 57 challenges, more than 350 team members and 500 participants.

The Cape Town edition was one of only two African countries participating in this year's hack, after having been the sole African host over the last three editions; cementing OHA's local site as a strong demonstration and example of African representation in innovation for impact.

The hackathon tested teamwork ability, problem solving, coordination, leadership and communication. The IUCN team won, with WIOMSA second and OHA third. The winning team now moves on to the next stage, travelling to France in the first week of December to compete on an international stage.

The challenges included:

- The **LoCo for Ocean Impact', Blue Pulse, Ocean Hub Africa** challenge asked hackers to develop a data-driven product or service prototype leveraging low-cost underwater observation tools from a remotely operated vehicle with autonomous underwater vehicle capabilities. The prototype needed to generate actionable insights for coastal communities.
- The **Where's my MPA-WIOMSA** challenge addressed the low public awareness and accessibility of information about marine protected areas (MPAs) and local marine management areas in the WIO region. The goal was for hackers to develop an app to make conservation areas visible and relevant, supporting behavioural change and involving local and indigenous peoples in monitoring and protecting MPAs.
- The **PLASTIC2PURPOSE: Turn waste into insight & opportunity, International Union for Conservation of Nature (IUCN)** challenge identified plastic as a major problem and asked for solutions to transform plastic pollution data from the ISLANDPLAS project into insights and opportunities. The goal was to translate data into actionable insights and a sustainable business concept to combat plastic leakage.

GMES & AFRICA CONTINENTAL FORUM: TRANSITIONING TO THE AFRICAN SPACE AGENCY



The Global Monitoring for Environment and Security (GMES) and Africa Continental Forum convened in Cairo, Egypt from 1–3 December 2025 under the theme “GMES & Africa: Shaping the Africa Earth Observation Roadmap as a Pillar of a Sustainable Space Economy.”

The forum brought together earth observation stakeholders, including service providers, policymakers, academic institutions, private sector representatives, civil society organizations and end users to assess progress, share best practices and strengthen continental collaboration. **Eight participating consortia presented their key achievements and contributions to policy development and institutional sustainability** over the past four years. The forum also facilitated new partnerships among African and international stakeholders.

Key themes across all consortia included data availability, decision support tools for stakeholders from community to policy levels, policy and institutional frameworks, improving end user livelihoods, coastal, ocean and terrestrial conservation and resource management and capacity-building spanning school children, university students, small-scale fisheries, researchers and policymakers.

Looking ahead, all consortia addressed concerns about sustaining the user base for developed services. Members assured that services will remain available to end users – particularly small-scale fishers who rely on daily information about weather conditions and fishing zones – as well as decision-makers.

Development of an earth observation roadmap was a priority, with presentations from the European Commission, the African Space Agency and United Nations Economic Commission for Africa. The roadmap focuses on earth observation strategies, resource mobilization and partnership.

As the GMES & Africa Programme concludes, its impact across more than 44 African countries in marine and terrestrial thematic areas is widely celebrated. The challenge ahead is for consortia and countries to build innovative, sustainable and self-reliant African space ecosystems that continue delivering data, information and knowledge to support policy, decision-making and improved livelihoods.

EMPOWERING EARLY CAREER MARINE SCIENTISTS TO COMMUNICATE THEIR RESEARCH FINDINGS

WIOMSA hosted a Scientific Writing, Publishing and Communications Workshop for Early Career Professionals (ECOPs) in the Western Indian Ocean region in September 2025. The workshop, held ahead of the 13th WIOMSA Symposium, aimed to strengthen the capacity of emerging marine scientists and practitioners to effectively communicate their research findings.



A total of 58 ECOPs from nine countries (Comoros, Kenya, Mozambique, Madagascar, Mauritius, Seychelles, Somalia, South Africa and Tanzania) participated in the event. The diverse cohort included Master's and PhD students, postdoctoral researchers and early-career professionals working across universities, research institutes, government agencies and non-governmental organizations. The participants were young women (23) and men (33), reflecting the region's growing engagement of women in marine science.

The workshop was led by a team of experienced trainers, including Prof José Paula, Editor-in-Chief of the *Western Indian Ocean Journal of Marine Science*; Prof Ranjeet Bhagooli of the University of Mauritius; Associate Professor Joseph Maina of Macquarie University; WIOMSA-Macquarie Research Fellow Dr Vera Horigue; and Glenn Ricci from the University of Rhode Island. The training focused on building practical skills in scientific writing, publishing and science communication to enhance

participants' ability to publish their research ethically and effectively.

Significant emphasis was placed on ethics in scientific writing, including responsible authorship, avoiding predatory journals and the emerging role of artificial intelligence tools. Navigating the publishing landscape, open science practices, science communication and translating research into policy were also discussed.

Pre- and post-workshop surveys showed most participants found the training highly relevant, with notable gains in understanding manuscript structure, ethical publishing and science outreach.

WIOMSA's first foray into intensive scientific communication training for ECOPs has laid a solid foundation. **Future efforts will focus on longer, more interactive sessions, peer-to-peer mentoring and systemic approaches to address authorship equity and access issues.**

eDNA THINK TANK WORKSHOP DELIVERS SIGNIFICANT OUTCOMES

*By Frank Mirobo, Camille Gaynus, Otwoma Levy,
Thomas Mkare and Obakeng Mollelu*



Photo: © Sidney Opiyo

An eDNA Think Tank Workshop, held from 25 to 27 September 2025, was co-organized by Black in Marine Science (BIMS) in partnership with the Kenya Marine and Fisheries Research Institute (KMFRI) and WIOMSA.

This three-day event served as a high-impact pre-WIOMSA Symposium activity aimed at accelerating the uptake of environmental DNA (eDNA) technologies in the Western Indian Ocean (WIO) region. It brought together five leading experts and 25 early-career researchers and practitioners and provided a dynamic platform to explore cutting-edge advances in eDNA science, including sampling methodologies, laboratory workflows and data interpretation.

The workshop delivered significant outcomes, including practical skills in eDNA sampling, extraction and data analysis, strengthening the technical capacity of early-career researchers across the region. It facilitated valuable knowledge exchange as experts shared emerging trends, challenges and best practices in eDNA-based biodiversity monitoring. The event also fostered new collaborative

networks among institutions and practitioners, laying the groundwork for future partnerships and joint research. Importantly, it identified key areas for innovation to advance the use of eDNA in ecosystem monitoring, marine policy development, and evidence-based decision-making within the WIO region.

The collaboration initiated during the workshop will continue beyond the event. KMFRI-affiliated researchers will collect additional samples, which will be processed to characterize bacterial, eukaryotic and fish communities, further advancing regional understanding of marine biodiversity through eDNA science.

BIMS continues to strengthen collaborations with different stakeholders across the WIO region and the whole of Africa.



SEAGRASS SCIENCE AND POLICY GAIN MOMENTUM ACROSS THE WIO

One of the Sea Grass sessions



5 SESSIONS dedicated to seagrass	200 PARTICIPANTS	15+ COUNTRIES participated	WIO SEAGRASS STATUS REPORT (2025) pre-launch	Progress from 5 COUNTRIES on Red List of Ecosystems assessments	ROADMAP INITIATED ROADMAP toward a Regional Seagrass Strategy for COP12 (2026).
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Seagrass conservation took centre stage at the 13th WIOMSA Scientific Symposium with five dedicated sessions that brought together over 200 participants from more than 15 countries in the Western Indian Ocean (WIO) region and beyond.

Highlighting scientific progress, policy commitments and regional collaboration, experts, policymakers and community leaders shared new evidence on seagrass extent, ecosystem services, blue carbon potential and governance challenges. The sessions demonstrated the WIO's shift towards translating seagrass science into policy and action.

A mini symposium on “Enhancing Seagrass Management, Conservation and Policy” examined restoration successes, large-scale mapping innovations and community stewardship initiatives. Two special sessions – “Coastal Ecosystems at Risk: Red List of Ecosystems in the WIO” and “Conserving Dugongs and Seagrass Ecosystems” – highlighted ecosystem vulnerability. The ReSEA project revealed significant data and capacity gaps while identifying opportunities for coordinated Red List assessments. The dugong-seagrass session addressed conservation challenges across WIO countries, emphasizing species-habitat linkages critical to dugong survival.

Restoration and community leadership in action

- Restoration pilots across Comoros, Madagascar, Kenya, Mozambique and Tanzania are combining ecological monitoring with community stewardship.
- Community-led conservation in Kenya and Mozambique includes locally managed marine areas initiatives, Beach Management Units and traditional governance systems such as Madagascar's dina.
- Global best practices showcased during the dugong and seagrass session included initiatives like the 2030 Seagrass Breakthrough.

A dedicated session titled “Strengthening knowledge on WIO seagrass” unveiled the WIO Seagrass Status Report and stimulated dialogue on the state of seagrass ecosystems across the WIO. The comprehensive WIO regional synthesis showcased major advances in habitat mapping, ecological assessment and socio-economic valuation, while identifying gaps in data, protection, management effectiveness and national policy integration. “Building a regional seagrass strategy and bridging science-policy”, part of the process to develop a regional strategy for adoption at Nairobi Convention COP12 (2026), outlined gaps in science, policy and finance and set the stage for a robust regional roadmap.

SHIFTING POWER TO PEOPLE WHO KNOW THE OCEAN BEST | *By Shreya Chakrabarti*

Photo: © Peter Thuo, COMRED



At most big marine conferences, the people who live closest to the ocean are rarely in the spotlight. They are often viewed as only storytellers, but they are some of the most crucial conservation practitioners – restoring mangroves, protecting reefs, collecting data and managing fisheries.

Their traditional knowledge, when combined with modern science, is shaping new approaches that sustain both people and nature. But that work is rarely acknowledged, let alone celebrated.

At the 13th WIOMSA Symposium, something different happened. The Community Marine Leaders Hub, a special session co-created by a coalition of 13 locally led marine organizations, invited fishers and community leaders to speak and share their knowledge, priorities and lived experience.

The idea was created by the African Marine Conservation Leadership Programme. It equips senior marine conservation leaders with the skills to understand themselves, better support their teams and catalyse impactful collaborations. Together with [Mwambao](#), [COMRED](#), [LaMCoT](#), [Action For Ocean](#), [Reefolution](#), [Bahari Hai](#) and [Sea Sense](#), they support the protection and co-management of more than 200 000 hectares of marine ecosystems, engage tens of thousands of coastal residents and pioneer new paths for sustainable livelihoods, education and climate resilience.

Fishers shared how traditional knowledge guided their practices and how poetry, art and theatre reflected community resilience; while scientists joined group discussions to help create ideas for inclusive conservation models.

Ibrahim Masuo, Bandari Beach Management Unit Chair, described what is at stake:

“As a crab fisher the mangrove habitats we rely on have deteriorated due to logging. We sensitize fellow crab fishers to care for the burrows and rebuild them for crabs to recolonize. We rely on Indigenous knowledge, which is also science,” he said.

The Hub connected local action to global frameworks, positioning community leadership as central to regional governance and climate goals. Among the outcomes were calls to formalize community participation in marine governance, ensure that women and youth play decision-making roles and establish a regional financing mechanism to channel more resources directly to community-led conservation.

“A united ocean community doesn’t just protect the sea; it secures our shared future. WIOMSA created a space where we were reminded that without the community, the ocean cannot thrive,” said Catherine Nchimbi, Senior Portfolio Manager at Maliasili.

To learn more about the African Marine Conservation Leadership Programme, visit <https://marineconservationleaders.org>

ONE OCEAN, ONE FUTURE: IOC AT THE WIOMSA SYMPOSIUM

Participants during the opening
session of the 13th WIOMSA
Scientific Symposium



The 13th WIOMSA Scientific Symposium, held from 28 September to 3 October 2025 in Mombasa, Kenya, under the theme “One Ocean, One Future: Connecting People, Policy, and Science for a Thriving Western Indian Ocean,” marked a pivotal moment for marine science and ocean sustainability in the region. Nearly 1 400 participants gathered to foster dialogue and collaboration among scientists, policymakers, private sector actors, civil society, early career ocean professionals (ECOPs) and coastal communities.

The symposium delivered key agreements to strengthen regional cooperation, advance ocean science and implement actions to reduce marine pollution and mitigate climate change – affirming its central role in the Western Indian Ocean (WIO). The event centred on the nine priorities of the Ocean Decade Africa Roadmap, with the IOC-UNESCO sub-commission for Africa and the Adjacent Island States (IOCAFRICA) as a key partner, reaffirming its role in driving ocean science, fostering regional partnerships and supporting the United Nations Decade of Ocean Science for Sustainable Development (2021–2030).

Mr Ibukun Adewumi, Head of the IOCAFRICA Secretariat, delivered a compelling opening speech stressing the urgency of acting, developing capacities and enhancing collaboration across sectors. ***“We are the first generation to truly see the size of the ocean crisis, and may be the last to fix it,”***

During the opening, Kenya’s Principal Secretary for the State Department of Blue Economy and Fisheries, Hon. Betsy Muthoni Njagi, stressed that “science without policy is powerless, and policy without science is empty,” urging leadership to address pollution, climate change, biodiversity loss and resource scarcity.

Prof Shaukat Abdulrazak, Kenya’s Principal Secretary for Science, Research and Innovation, reinforced the need for the “socialization of science,” ensuring knowledge benefits all stakeholders. Mr Paul Orina, Director General of Kenya Marine and Fisheries Research Institute advocated for “science unusual” – innovative, community-focused research delivering practical solutions.

IOCAFRICA held two dynamic and insightful special sessions during the Symposium.

In collaboration with the Flanders Marine Institute, the session titled “The UN Decade of Ocean Science: Milestones and gaps in bridging the science–policy–society interface in Africa” showcased the role of National Decade Committees (NDCs) as essential structures for implementing the Ocean Decade, while also highlighting ongoing initiatives in the region that contribute to translating science into policy and society.



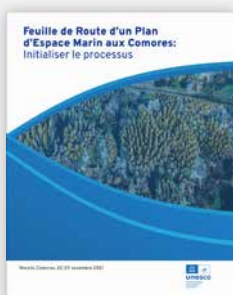
Ibukun Adewumi addressing the participants at the special sessions

MARINE SPATIAL PLANNING ROADMAP LAUNCHED FOR COMOROS | *By David Mwoma*



Stakeholders gathered to celebrate a major milestone in advancing Comoros' Blue Economy and marine conservation

The IOC-UNESCO's sub-commission for Africa and the Adjacent Island States (IOCAFRICA), marked a major milestone at the 13th WIOMSA Scientific Symposium, launching the Marine Spatial Planning (MSP) Roadmap for the Union of Comoros.



[Read the full report here](#)

Roadmap for a Marine Plan in the Comoros: Initiating the process

The roadmap will help Comoros define a shared vision for its Blue Economy by outlining concrete actions and establishing timelines to coordinate sustainable use of marine and coastal resources. It fosters collaboration among institutions, communities and stakeholders, ensuring inclusive and integrated governance. The roadmap aims to harmonize economic growth with environmental protection and social well-being. The roadmap was developed through close partnership between the General Planning Commission (CGP) of Comoros, the Comoros National Commission for UNESCO and the Faculty of Science and Technology at the University of Comoros, with support from the Swedish Agency for Marine and Water Management.

IOCAFRICA and its partners will support the implementation phase of the MSP process in Comoros. The next steps include capacity-building workshops, stakeholder consultations and pilot mapping exercises to translate the roadmap into an operational framework. These efforts will guide the identification of priority coastal and marine areas for management, strengthen cross-sectoral coordination and ensure the roadmap's alignment with national goals in Blue Economy growth, biodiversity conservation and disaster preparedness.

IOCAFRICA extends its appreciation to Mr Zac Maritim, the lead author of the publication, whose dedicated work and technical leadership were instrumental in ensuring the report's scientific rigour and practical relevance.

A CLEAR PATH CHARTED FOR ADVANCING MARINE OECMS



The Western Indian Ocean Consortium (WIO-C) convened its first in-person Technical Working Group meeting on Other Effective Area-based Conservation Measures (OECMs), followed by a mini-symposium during #WIOMSA2025. Together, these events marked a major step towards supporting the countries of the Western Indian Ocean (WIO) as they embark on their individual journeys to explore marine OECMs.

The Working Group brings together member organizations (such as WCS, WIOMSA, IUCN, WWF, CORDIO, Fauna & Flora, RARE and MIHARI) with technical experts and partners. Its purpose is to guide the identification, validation, recognition and management of OECMs – an increasingly important component of national ambition to reach Target 3 (30x30) of the Kunming–Montreal Global Biodiversity Framework.

The group discussed its terms of reference, established task teams, country focal points and set priorities for 2025 to 2026. Members emphasised the need to balance ambition with practicality: while many WIO countries are already exploring OECM pathways and a few are progressing with national frameworks and pilot assessments, there is still uncertainty about recognition processes, evidence requirements, the benefits of OECMs to local actors and how OECMs fit within existing legal and institutional frameworks.

Researchers and practitioners at the mini symposium presented new findings from Kenya, Tanzania, Mozambique, South Africa and Mauritius, highlighting community-based

conservation, co-managed fisheries, restoration activities and marine spatial planning processes with potential relevance for OECM recognition.

The working group agreed to develop a Policy Brief on Advancing Marine OECMs in the region. This document will be co-created with national teams of OECM experts and will be submitted to the Nairobi Convention Secretariat ahead of COP 12 in 2026. At the heart of the policy brief are a structured set of national profiles designed to provide a clear and comparable picture of each WIO country's status quo in terms of its OECMs process.

As the WIO region moves toward COP 12, momentum around OECMs is growing, but so is the need for clarity, evidence and coordinated action. Through the Working Group's collaborative process, the mini-symposium's scientific insights and the development of the regional Policy Brief, the WIO-C is supporting countries navigate this emerging field while ensuring that OECMs contribute to a more connected, inclusive, equitable, and resilient marine conservation landscape across the region.

ACCELERATING REGIONAL ACTION TOWARD 30×30 IN THE WIO



The highly anticipated special session introducing the Western Indian Ocean Marine Conservation Programme (MARCOP) was held at the 13th WIOMSA Scientific Symposium.

With fewer than 1 900 days until 2030, the session highlighted a central message: reaching 30×30 in the Western Indian Ocean (WIO) region will require the scaling of area-based conservation and strengthening the quality of protection, governance and capacity across the region.

MARCOP was presented as a science-to-policy-to-management pipeline connecting data, monitoring, reporting and transparency systems to national and regional planning processes. The initiative aims to close the region's approximately 1.8 million km² marine protection gap, while ensuring expansion is anchored in the "4+1 Es": effectiveness, ecological representation, ecological connectivity, equity and rights and embedded policy frameworks.

Dr Arthur Tuda of WIOMSA emphasized how the platform's holistic approach positions it as a key mechanism to coordinate national action, strengthen governance and enable transparent reporting across the WIO. Presentations by regional experts highlighted extensive scientific evidence and governance diagnostics that collectively paint a clear picture: the WIO has momentum but persistent gaps could undermine progress without coordinated action. Spatial assessments, including the WIO Marine Protected Area Outlook Report (2021), show that only about 7 percent of the region's marine area is currently protected across 143 marine protected areas. Scaling to 30 percent will require protected area expansion and strengthened management effectiveness.

To find out how you can get involved, visit <https://marcop.wiomsa.org/how-you-can-get-involved>

Recommendations for COP 12 and regional implementation

- Establish a WIO Target 3 Data & Information System with harmonized baselines, indicators and open data tools to support national reporting and monitoring, reporting, and verification for financing.
- Embed biodiversity-inclusive conservation planning within marine spatial planning, including spatial analyses of climate refugia and ecological corridors.
- Recognize community-managed areas as OECMs through clear inclusion criteria and safeguards for free, prior and informed consent, tenure rights, grievance mechanisms and gender equity.
- Institutionalize interagency coordination and embedding the "4+1 Es" to guide sustainable investment.

A key outcome of the session was the call to formally recognize MARCOP as a regional coordination and implementation platform under the Nairobi Convention. This will sustain regional momentum, consolidate science-policy linkages and support long-term capacity development and governance improvements beyond 2030.

MARCOP – a United Nations Ocean Decade Action is a regional coordination and implementation platform to help WIO countries achieve Target 3 of the Kunming-Montreal Global Biodiversity Framework. To learn more about MARCOP, visit <https://marcop.wiomsa.org>

INTERDISCIPLINARY APPROACHES FOR MARINE RESILIENCE | *By Sarah Bareigts*



The BRIDGES x WIOMSA School brought together 12 international experts and 19 participants, including early-career researchers and practitioners from across the Western Indian Ocean (WIO) ahead of the 13th WIOMSA Symposium for training focused on strengthening interdisciplinary approaches for marine social-ecological systems facing increasing global pressures.

The training combined interactive lectures, practical exercises, case studies from BRIDGES sites and field activities and deepened participants' understanding of socio-ecological system dynamics, governance tools, data practices and methods for effective stakeholder engagement.

To learn more about the
BRIDGES x WIOMSA School, visit
<https://www.bridges-wio.com/bridges-x-wiomsa-2025-school>

The four sessions were led by a diverse team of experts:

- Social-ecological modelling led by **Stéphanie Mahévas** and **Quentin Schull**, worked on modelling octopus fisheries in Comoros and coastal artisanal fisheries in Mayotte, highlighting the challenges of representing complex systems.
- Marine spatial planning with **Brice Trouillet**, **Philile Mbatha**, **Pascal Thoya** and **Rodolphe Devillers** focused on participatory exercises.
- Tools and practices for environmental and social data, with demonstrations by **Shauna Mahajan** (Ellinor.org), **Isabel Urbina-Barreto** (photogrammetry) and **Julie Furiga** (open science and data management).
- Stakeholder engagement led by **Philile Mbatha**, **Nina Rivers** and **Ella-Kari Muhl** focused on transdisciplinarity, inclusive participation and power dynamics.

BRIDGES organizes at least one training school each year, with the next session in La Réunion and Comoros in December 2025, focusing on scientific data management.

ADVANCES IN DEEP-WATER RESEARCH

| *By the African Network of Deep-water Researchers*



The Challenger 150 African Network of Deep-water Researchers (ANDR) hosted a mini-symposium during the 13th. WIOMSA Scientific symposium, bringing together regional researchers to showcase recent advances in deep-water research and their relevance for science, policy and sustainability.

Under the theme “Science as the foundation for decision-making”, the event highlighted recent ocean observations, including work by early career ocean professionals. The mini-symposium aimed to raise awareness of deep-water research, facilitate connections among researchers, strengthen existing networks and identify future research priorities.

Topics ranged from seafloor mapping and deep-sea biodiversity to capacity development, technological innovation, ecosystem assessment and the risks of deep-sea mining.

Ongoing efforts by the ANDR to strengthen capacity for deep-water research in the WIO were presented by Kirsty McQuaid of Nelson Mandela University in South Africa. These initiatives focus on connecting researchers with

opportunities for funding, training and collaboration; promoting knowledge exchange; supporting development of African-led deep-water research proposals; and facilitating regional and international collaborations. Several specific examples of these activities are highlighted on the ANDR [webpage](#).

By connecting emerging discoveries and technologies to governance and conservation priorities, the session demonstrated how deep-water science underpins evidence-based decision-making.

To read more about ANDR’s mini symposium, visit <https://challenger150.world/andr-at-the-13th-wiomsa-scientific-symposium>

WIMS STRENGTHENS CONNECTIONS AND RE-ENERGIZES



Sarah Ater, Country Representative for Kenya, presenting during the risk assessment workshop

Dr. Jacqueline Uku and Prof Lantoasinoro Ranivoarivelo received the 2025 WIOMSA Fellow Membership Award

The 13th WIOMSA Scientific Symposium provided a special opportunity for the Network of Women in Marine Science (WiMS) members to reconnect in person after a long period of mostly online exchanges. It marked an important step toward revitalizing the network's activities and strengthening its role in supporting women's leadership and visibility in marine science.

The WiMS Steering Committee met on 30 September 2025 to discuss the network's future. The committee emphasized that network members should develop proposals in response to funding calls to implement projects, making WiMS more active. The discussion also highlighted the importance of strengthening communication across the network, building on the success of the Womentoring programme and creating more opportunities for collaboration and exchange across countries.

Pre-Symposium workshop

Ahead of the WIOMSA Symposium, WiMS and the Swedish Agency for Marine and Water Management (SwAM) organized a two-day workshop which aimed to strengthen the capacity of female marine scientists by adapting the "Risk and negative side effect assessment in conservation projects" tool to the WIO context.

WiMS also hosted a "womentoring" debriefing session on 2 October 2025, bringing together mentors and mentees from the six-month pilot Womentoring project (April to October 2025) for roundtable discussions. Participants shared positive feedback, noting that the programme's biggest impact is strengthening skills such as leadership, confidence and emotional support. In the next phase, WiMS plans to add additional professional development workshops on writing, presentations, interviews and coding skills and to increase in-person interactions and peer support for mentors.

As WiMS grows, we are happy to have helped the formation of WiMS Liberia whose seven members participated in the WIOMSA Symposium for the first time.

Outstanding contributions to marine science and leadership

WiMS was strongly represented during the 13th WIOMSA Scientific Symposium, with several of its members recognized for their outstanding contributions to marine science and leadership across the WIO region. Professor Lantoasinoro Ranivoarivelo (Madagascar) and Dr Jacqueline Uku (Kenya) received the 2025 WIOMSA Fellow Membership Award, the Association's highest scientific distinction in recognition of their significant and lasting contributions to marine science, interdisciplinary research and capacity building in the region.

- **Winnie Okoth** and **Nancy Oduor** from Kenya were awarded second and third places for Best Oral Presentation.
- **Vilma António Machava** from Mozambique was awarded first place for Best Poster Presentation.
- **Sheena Talma** (Seychelles) received the Emerging Scientist Award 2025.
- **Dr Flower Ezekiel Msuya** was honoured with the Legacy Award 2025

WiMS members elected to WIOMSA Board of Trustees

Several WiMS members were elected to the 9th WIOMSA Board of Trustees: Marie May Jeremie (Seychelles) as President; Nina Wambiji (Kenya) as Vice-President, Celia Macamo (Mozambique) as a board member and Blandina Lugendo (Tanzania) as Treasurer.

AFRICAN OCEAN DECADE TASKFORCE MEETS IN CAPE TOWN

| By Edwin Mwashinga



The African Ocean Decade Taskforce is convening in Cape Town this week to review progress in implementing the Ocean Decade Africa Roadmap and the broader [SEAWARD Africa Programme](#). The in-person meeting aims to reflect on achievements, identify lessons learned over the past five years, and plan strategies to enhance impact moving forward.

Key activities during the meeting include:

- **Evaluating successes and challenges** in the Decade's implementation
- **Developing new strategies, structures, and partnerships** to accelerate ocean science and sustainable development
- **Drafting a two-year operational workplan and partnership engagement strategy**
- **Strengthening collaboration with existing Ocean Decade structures** such as NDCs, DCCs/DCOs, and ECOPs
- **Discussing governance frameworks** for the Decade Coordination Office for Africa

This gathering represents a critical step in shaping the future of ocean science across the continent. The Taskforce encourages partners, institutions, and stakeholders to collaborate in driving innovative solutions for Africa's ocean economy and environmental sustainability. Together, these efforts aim to advance sustainable development and foster transformative impact in Africa's oceans.

SCALING DIGITAL INNOVATIONS IN KENYA'S MARINE SMALL-SCALE FISHERIES

| By Japhet Kaadzo Tembo, Emmanuel Mbaru and Alexander Tilley

Marine small-scale fisheries (SSF) are vital to Kenya's economy, food security and cultural heritage, yet they face mounting pressure from climate change and population growth. These challenges are compounded by limited data on fishing activities across time and space.



A community fisher participates in the installation of VMS at Mtwapa BMU in Kilifi. Photo: @Japhet Tembo

The very diversity that defines SSF also makes them difficult to monitor. However, as **technology becomes more affordable and accessible, digital tools offer a promising solution to modernize fisheries management systems.** These innovations can strengthen co-management institutions such as Beach Management Units (BMUs) and empower local communities with timely, reliable information for decision-making.

A good example is the use of digital tools to generate reliable fisheries-dependent data. Vessel monitoring systems (VMS), when integrated with platforms like Peskas – a near-real-time open-source monitoring and analytics system for SSF – can combine vessel tracking data with catch records and produce spatially and temporally filtered data on fishing activity, methods and habitats.

Kenya is using a VMS installed on SSF fishing vessels that collects high-resolution data on vessel movements. Additionally, at selected landing sites, trained data enumerators use tablets installed with Kobo Toolbox to record fish catch data from VMS-equipped vessels. To date, 150 Pelagic Data System (PDS) VMS devices have been installed in 150 small-scale fishing vessels across 28 designated landing sites in Kenya's five coastal counties – Kwale, Mombasa, Kilifi, Tana River and Lamu.

Additionally, 30 tablets have been distributed to the enumerators to support catch data collection for integration into Peskas. The automated analytics of these data provide fishers, managers and researchers with valuable insights into fishing effort, gear use, fisheries status, catch rates, economic efficiency, fisher interaction and habitat preferences, as well as limits that can potentially guide fisheries management and livelihood investments. **This initiative is being implemented by WorldFish**

under the Asia-Africa BlueTech Superhighway project on Digital Coast, in collaboration with Kenya Fisheries Service and the County Government Department of Fisheries.

The implementation of Peskas is envisioned to transform SSF in Kenya through mapping potential fishing zones by analysing vessel movement and catch data and helping identify high-yield fishing areas, reducing search time, fuel costs and ecological pressure on overfished zones. The data will also empower communities to establish Community Management Areas, enabling co-management of marine resources.

Additionally, data co-generated will provide crucial insights for marine spatial planning and supporting habitat protection. Currently, the VMS has recorded over 7 000 high-resolution fishing trips, which are being integrated with catch data through the Peskas pipeline dashboard to generate valuable insights.

Fishers, once sceptical, are now sensitizing other fishers to embrace the technology, viewing it as a tool “by fishers, for fishers”. One firsthand account comes from Mr Gitonga, a fisher and boat owner at the Mtwapa BMU. He described how the Peskas tracker application helped him locate and rescue his boat at sea after his crew had left the landing site early in the morning for fishing but had not returned by 21.00. Mr Gitonga was able to pinpoint their location and send assistance.

FAO's Voluntary Guidelines for Securing Sustainable SSF emphasize the right of small-scale fishers to access marine resources, participate in decision-making and benefit equitably from development. In Kenya, these rights are slowly gaining traction through the Peskas digital solution. With data-backed evidence, SSF communities are now better positioned to claim their rightful space in national Blue Economy plans.

KEY CONSIDERATIONS FOR ADOPTING OCEAN ALKALINITY ENHANCEMENT | *By George Rushingisha*



Ocean acidification is one of the most serious consequences of rising carbon emissions. As atmospheric CO₂ levels increase, the ocean absorbs about 25 percent of these emissions, making seawater more acidic. This increasing acidity threatens coral reefs, fisheries and coastal livelihoods by weakening the ability of marine organisms to build shells and skeletons, disrupting marine food webs and undermining the overall health of ocean ecosystems.

Ocean Alkalinity Enhancement (OAE) is being explored as a strategy to counteract local acidification, while also removing carbon dioxide from the atmosphere and storing it for tens of thousands of years. However, ocean-based carbon removal strategies do not affect acidity in the same way. Some have little or no influence on local pH, some may help reduce acidification and others could worsen local conditions. This variation makes careful evaluation essential, especially prior to application in vulnerable and biodiverse regions such as the Western Indian Ocean (WIO).

Carbon to Sea and the International Alliance to Combat Ocean Acidification organized a COP30 side event in Belém, Brazil, to discuss the opportunities and risks of OAE and related approaches. The meeting emphasized that ocean-based climate solutions must remove carbon while protecting ocean health and strengthening coastal resilience.

Dr Rushingisha George, senior research scientist at the Tanzania Fisheries Research Institute (TAFIRI) has conducted ocean acidification research in the WIO since 2019, with long-term monitoring at TAFIRI supported by WIOMSA and the International Union for Conservation of Nature (IUCN) Tanzania office. He also led the development of the WIO Ocean Acidification Action Plan under the Nairobi Convention, scheduled for implementation from 2025 to 2035.

Dr George emphasizes that adopting OAE technology in the WIO region requires a thorough, context-specific assessment beyond whether OAE works in principle. It should examine environmental, social, economic and practical factors to

determine if OAE can support local resilience without creating new risks, including impacts on marine organisms such as corals and commercially important fish.

Broader system-level effects also need examination. OAE may alter ocean chemistry beyond deployment areas and influence ocean-atmosphere CO₂ exchange. In WIO's connected coastal systems these changes could cascade across ecosystems. Answering these environmental questions requires locally relevant research and monitoring. Carefully designed, small-scale experiments should be the first step in understanding ecological responses under WIO conditions.

Alongside environmental impacts, feasibility is a crucial consideration, raising questions about logistics, the availability and transport of materials, deployment infrastructure and the capacity to monitor and maintain OAE sites over time. **It is important to ask whether OAE can realistically move from small pilot projects to a scale that meaningfully reduces the impacts of ocean acidification across the WIO's environments.** Scalability is essential. Pilot projects should follow a phased approach, only expanding when there is clear evidence of safety and effectiveness. None of this is possible without sufficient capacity in the region. Capacity-building in the WIO is needed in specialized equipment and reliable laboratories, as well as field infrastructure and human capacity.

Ultimately, any decision to adopt OAE in the WIO must be evidence-based, transparent and grounded in local priorities, with a clear focus on safeguarding ocean health and the communities whose lives and livelihoods depend on it.

STRENGTHENING REGIONAL OCEAN GOVERNANCE THROUGH INTEGRATED OCEAN ACCOUNTS

| By the Nairobi Convention Secretariat

At the eleventh Conference of Parties to the Nairobi Convention in 2024, member states adopted a decision to strengthen regional ocean governance in the Western Indian Ocean. This milestone reflects years of work on the Regional Ocean Governance Strategy (ROGS), designed to improve cooperation among regional actors in managing shared ocean resources.



Mandated by the African Ministerial Conference on the Environment, the ROGS aims to coordinate across governments, Regional Economic Communities, the private sector and technical institutions. To support its implementation, Contracting Parties asked the Secretariat and partners to develop methodologies and tools for ocean and natural capital accounting, to build knowledge and capacity and harmonize their use in tracking sustainable Blue Economy and ocean governance (Decision CP11/14).

To support this work, the Nairobi Convention together with the Global Ocean Accounts Partnership (GOAP), the University of New South Wales' Centre for Sustainable Development Reform and the Africa Community of Practice held a regional webinar on 4 November 2025 hosted by IOC-UNESCO's sub-commission for Africa. The webinar brought together experts, policymakers and technical partners to examine how ocean accounts (integrated records of environmental, economic and social data) can support ROGS implementation, facilitate science-to-policy processes and strengthen monitoring of ocean health and Blue Economy performance.

Participants discussed how standardized ocean accounting can provide common metrics for ocean health and economic performance, strengthen evidence for policy coherence, enable countries to align national Blue Economy initiatives with regional and global goals and support the establishment of the Regional Ocean Accounts Framework envisioned in the ROGS.

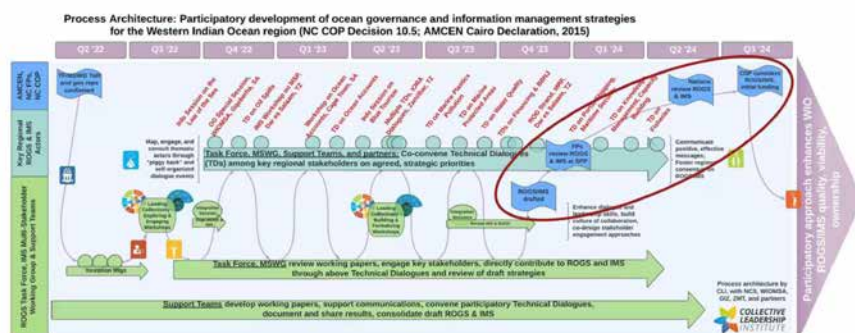
Through case studies from Kenya (Pwani University) and Mozambique (National Institute of Statistics) and interactive exchanges, the webinar advanced understanding of how ocean accounts can inform sustainable ocean governance.

The Nairobi Convention is leveraging an upcoming European Union-funded Southwestern Indian Ocean Programme to support regional capacity-building, establish standardized ocean accounting methodologies and indicators and foster long-term strategic planning for ROGS implementation. Integrating ocean accounts into ROGS enables coordinated regional action, allowing countries to track progress, attract sustainable investment and fulfil global ocean conservation commitments.

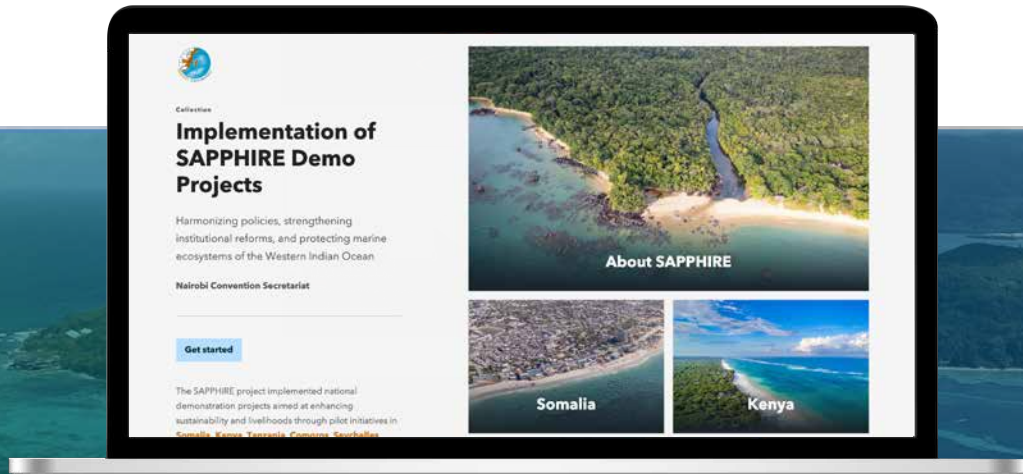
For more information, contact Dr Tim Andrew, Nairobi Convention Secretariat

Process Architecture:

Co-development of the Regional Ocean Governance Strategy (ROGS) in the WIO



IMPLEMENTING THE SAPPHIRE PROJECT: REGIONAL BEST PRACTICES AND LESSONS | *By the Nairobi Convention*



Large Marine Ecosystems across the world are facing growing pressure from climate change, biodiversity loss and pollution. Because these ecosystems span national boundaries or lie beyond any single country's jurisdiction, protecting them demands strong, coordinated ocean governance.

Through the implementation of the SAPPHIRE project, the Western Indian Ocean (WIO) region has set out to strengthen exactly that. Funded by the Global Environment Facility, implemented by the United Nations Development Programme and executed by the Nairobi Convention from 2017 to 2025, the SAPPHIRE project supports governments, communities, partners, regional bodies and the private sector across the WIO. Its work focuses on building institutional capacity, improving policy alignment and promoting sustainable resource use, including alternative livelihoods that reduce dependence on natural ecosystems.

The SAPPHIRE project implemented national demonstration projects aimed at enhancing sustainability and livelihoods through pilot initiatives in Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and South Africa.

With SAPPHIRE project support, Comoros finalized a new National Fisheries Policy in 2024, marking a turning point toward sustainable, inclusive fisheries governance. It tackles illegal, unreported, and unregulated fishing; promotes sustainable fishing gear; enhances safety at sea; strengthens training and capacity development; and introduces community co-management of fisheries resources.

The Diani-Chale Marine National Reserve south of Mombasa, Kenya, enhances fisheries productivity, bolstering food security and livelihoods for vulnerable coastal fishing communities. By 2023, with the help of the

SAPPHIRE project, it had developed a climate-smart co-management framework, co-created innovative fisheries management plans and nature-based enterprises with communities, demonstrated the feasibility of reducing mangrove pressure through alternative livelihoods, and established ecological mangrove restoration projects.

A recently completed SAPPHIRE initiative has given Mogadishu, Somalia, a glimpse of a cleaner, more sustainable future. In late 2024, the Ministry of Environment and Climate Change, Benadir Regional Administration and the UNEP-Nairobi Convention Secretariat launched the Coastal Clean-Up and Sustainable Waste Management Project, introducing waste bins in coastal zones, engaging communities in sustainable practices and conducting awareness workshops and media outreach.

Off Mozambique's Inhaca Island, where communities rely on fishing amid declining stocks, the SAPPHIRE project launched a community-based mussel aquaculture initiative as a sustainable alternative. The first harvest exceeded expectations at nearly 3 tonnes. Thirty residents, including 17 women, were trained in mussel cultivation, including site preparation, seeding, harvesting and marketing.

To read more about the SAPPHIRE project, visit

<https://storymaps.arcgis.com/collections/59e7a64e526843b6a8c31d4cacbca499>

KENYA HOSTS FIRST COASTAL OCEAN ENVIRONMENT SCHOOL

| By Cosmas Munga



The Coastal Ocean Environment School in the Western Indian Ocean (COES-WIO) is a summer school initiated by the University of Michigan building on their experience of running similar programmes in Ghana and Nigeria. The inaugural COES-WIO 2025 school was co-hosted in Kenya by the Technical University of Mombasa (TUM), Pwani University and the Kenya Marine and Fisheries Research Institute (KMFRI).

Planning began in 2023, led by Prof. Brian Arbic of the University of Michigan, in collaboration with the Kenyan partners. Originally designed as a national programme for Kenyan participants, the school attracted additional partners including WIOMSA, IOC-UNESCO and early-career professionals and evolved into a regional programme drawing participants and instructors from across the WIO region and beyond. Its objectives are to:

- **enhance regional capacity** in ocean science, especially among early-career professionals;
- **provide hands-on, practical training** in key thematic areas of coastal and marine environmental research;
- **foster interdisciplinary collaboration and networking** among ocean scientists, researchers and policymakers across Africa;
- **promote the exchange of knowledge** and best practices in sustainable marine resource management;
- **attract professionals from across the globe** to work in partnership with the rich network in the WIO region; and
- **strengthen partnerships** among academic institutions and research organizations within the WIO region.

The first COES-WIO summer school had five hands-on themes: small-scale fisheries, mariculture and post-harvest management; chemical and physical oceanography; climate change and physical processes; marine pollution and plastics; and ecological survey techniques and data management. These themes were selected to build capacity in the WIO region among early-career professionals, post-graduate and undergraduate participants.

The week-long summer school trained a total of 75 participants drawn from across the WIO region and beyond, with 17 countries represented.

Participants during a field exercise in Kwale



REGIONAL TRAINING ON SATELLITE-DERIVED BATHYMETRY

| By Amon Kimeli, Daina Mathai, Noah Ngisiang'e and Amy Anfinrud

Kenya Marine and Fisheries Research Institute (KMFRI) hosted a week-long regional training workshop on satellite-derived bathymetry (SDB) for the Western Indian Ocean (WIO), bringing together experts and ocean mapping practitioners from eight WIO countries: Kenya, Tanzania, Mozambique, Madagascar, Comoros, Mauritius, Seychelles and Somalia.



The hands-on workshop, part of a Nippon Foundation-funded initiative to compile and harmonize multiscale bathymetric data for global ocean-mapping efforts, was co-organized with TCarta LLC (USA), a supplier of SDB data for near-shore areas around the globe, and supported by ESRI. It focused on building practical skills in SDB workflows, validation and integration methods. TCarta's global facilitation of SDB training has built valuable remote sensing mapping skills, resulting in significant data contributions to the Seabed 2030 project, including data-sparse, remote and challenging environments worldwide.

Accurate bathymetric data is essential for safe navigation, disaster risk reduction, climate resilience, marine biodiversity conservation and sustainable Blue Economy planning. Traditional survey methods face significant limitations, resulting in only 27.3 percent of the global seafloor being mapped, with the Western Indian Ocean (WIO) particularly under-mapped.

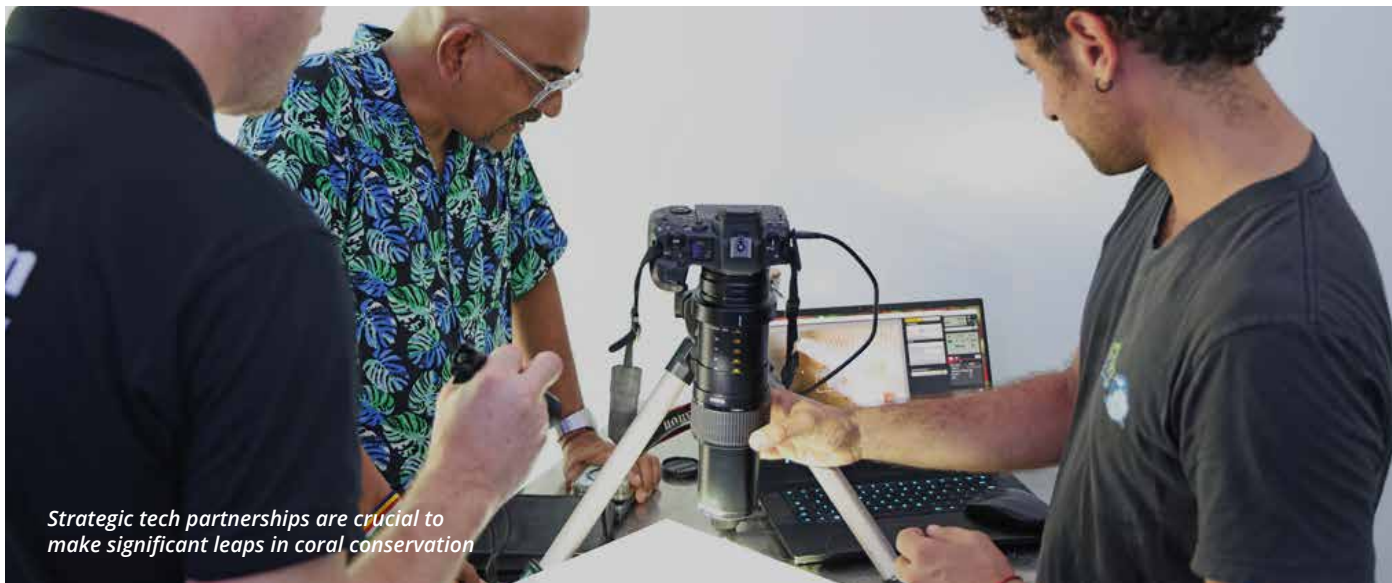


The WIO-SDB training gave participants a solid grounding in SDB principles, satellite data acquisition and processing workflows, and demonstrated how SDB can help fill critical gaps in nearshore bathymetric coverage.

Initiatives such as Seabed 2030, launched by the Nippon Foundation and GEBCO, have brought global attention to the challenge of mapping the global seafloor. The ambition to achieve a complete map of the world's seabed by 2030 has seen WIO governments, hydrographic offices, research institutions and international partners working together to achieve this.

KMFRI — Advancing Marine Science for a Sustainable Blue Economy

CORAL SPAWNING SUCCESS | By Liz Mwambui, Nature Seychelles



Strategic tech partnerships are crucial to make significant leaps in coral conservation

The Assisted Recovery of Corals (ARC) facility – Nature Seychelles’ land-based coral aquaculture centre on Praslin, Seychelles, recently achieved a groundbreaking milestone. In collaboration with Coral Spawning International, it successfully documented coral spawning in a controlled environment for the first time. This is a significant turning point in the battle for coral reef survival in Seychelles and Western Indian Ocean region.

Recreating coral spawning conditions in a controlled, land-based environment is no mean feat and the spawning was a piece of history in the making for all present. The plan for the newly created spawn was to conduct experiments on how to seed the reef.

“Coral spawning seemed complex and unimaginable, considering a small number of people have witnessed it happen, especially here in Seychelles. When the corals actually started to spawn, it looked like something surreal and magical,” said Priya Didon, the aquaculture officer at the facility.

For years, Nature Seychelles has been successfully using asexual reproduction through fragmentation to grow corals for restoration.

With financial support from Canon, it established a coral spawning lab at ARC to incorporate sexual reproduction in its restoration efforts. The lab is poised to supercharge these efforts by generating thousands of genetically diverse, resilient offspring, key to advancing coral reef restoration beyond traditional reef gardening.



The NGO will use spawning to seed the reef



Canon has donated imaging equipment to capture spawning in never seen before details

“We always knew we'd need to shift our strategy for coral reef restoration eventually. The successful spawning outside of their natural habitat marks a pivotal transition to sexual reproduction, which is the core of evolution,” Dr Nirmal Shah, Chief Executive of Nature Seychelles, explains.

Looking ahead, Dr Shah is determined not to give up. He views the ARC facility as a local answer and a hub for regional and global knowledge.

BRIDGES MISSION TO MAYOTTE | *By Sarah Bareigts*



The BRIDGES research programme visited Mayotte from 5 to 9 October 2025, to deepen exchanges with local scientific and environmental stakeholders. The aim was to discuss their work and ongoing projects, their vision and avenues for collaboration with BRIDGES in the fields of fisheries, biodiversity conservation and capacity sharing.

The BRIDGES team met with the Marine Nature Park to discuss local fishing practices and related conservation and management challenges and with the Maritime Academy to explore professional training needs within the fisheries sector.

BRIDGES also convened a multistakeholder meeting that brought together representatives from key environmental and non-governmental organizations, innovation clusters, academic partners and professional fishing groups. The discussions highlighted existing activities, strategic priorities and possible areas where BRIDGES could offer enhanced scientific, educational or collaborative support.

A session was held with researchers and lecturers from the University of Mayotte (already involved in the BRIDGES programme) focused on research on the island, the future Master's degree supported by BRIDGES and planned for 2027, upcoming thematic and field schools and new PhD opportunities funded by BRIDGES from 2026 onwards.

The mission concluded with field visits to small-scale fisheries, observations at a landing site and discussions with local scientific observers and fishers.



LAUNCHING A NEW ERA OF SEA-LEVEL MONITORING AND COASTAL RESILIENCE | *By David Mwoma*



Participants at the SEAMARCS workshop in Mombasa

The Strengthening Sea-Level Monitoring and Data Management in East Africa for Coastal Resilience and Community Safety (SEAMARCS) project launched with a three-day workshop in Mombasa from 24 to 26 September 2025.

The Strengthening Sea-Level Monitoring and Data Management in East Africa for Coastal Resilience and Community Safety (SEAMARCS) project launched with a three-day workshop in Mombasa from 24 to 26 September 2025.

Supported by the Flanders-UNESCO Science Trust Fund, the initiative marks a critical step towards building coastal resilience in Kenya, Seychelles, Mozambique and Madagascar through enhanced ocean observation and data sharing.

SEAMARCS, led by the Intergovernmental Oceanographic Commission (IOC) sub-commission for Africa and the Adjacent Island States (IOCAFRICA), UNESCO's IOC Tsunami Resilience Section and the Global Sea Level Observing System, brings together experts, institutions and international partners to strengthen data collection and decision-making. The project will deploy the innovative Sea-Level Station-in-a-Box across the region, expanding monitoring networks and improving data quality.

A key component is the new data portal, which will centralize sea-level information from all participating countries and make it accessible for quality control, analysis and collaboration. The initiative is implemented in close partnership with the Flanders Marine Institute

and national institutions across the region, ensuring local ownership and long-term sustainability.



From left: Dr Paul Orina (CEO, Kenya Marine and Fisheries Research Institute), Hendrik Lou Dierick (the Honorary Consul of Belgium in Mombasa), Francisco Tjess Hernandez (representative of the Flanders Government), Ibukun Adewumi (Head of IOC-AFRICA) and Bernardo Aliaga (head of Tsunami Resilience Section, IOC)

Participants agreed on a clear roadmap, including technical training in Mozambique and Seychelles to strengthen local data management skills; country-led workshops to bridge the gap between scientists and policymakers; and sustained support from UNESCO and partners to maintain momentum and institutional capacity.

By turning ocean data into timely, usable insights, SEAMARCS is helping communities adapt to a changing climate and build safer, more sustainable futures.

SEAWEED FOR THE CLIMATE: SEYCHELLES' AQUACULTURE POTENTIAL | By Sebastiaan Bas de Vos

If future research confirms strong bioactive potential, Seychelles could play a meaningful role in producing a natural feed additive to reduce global methane emissions.



Asparagopsis taxiformis is a species of red seaweed gaining global attention for its ability to drastically reduce methane emissions from cattle when added to their feed in small quantities. Given that methane is one of the most potent greenhouse gases, this seaweed is increasingly recognized for its significant potential in climate change mitigation. With growing international interest and investment in *Asparagopsis* farming, the study addressed a pressing question for Seychelles' growing Blue Economy: can the local strain of *Asparagopsis* be successfully cultivated in the country's naturally warm tropical waters?

Published research suggests that this seaweed struggles to grow at temperatures above 24 °C. This presents a challenge in Seychelles where seawater temperatures typically range from 25 °C to 31.5 °C, raising concerns about whether the seaweed can survive and thrive sufficiently to support farming.

To investigate this, controlled laboratory experiments were conducted by collecting the Seychelles strain of *Asparagopsis* and cultivating it under temperature conditions ranging from 24 °C to 32 °C. The growth trials found acclimated samples achieved a steady growth rate of about 4 percent per day, even in warm waters up to 32 °C, indicating that the local strain may be naturally adapted to local conditions, making it a viable candidate for aquaculture in the region.

Two months after the growth trials, bromoform (the compound responsible for *Asparagopsis*' methane-reducing properties) was measured. The concentrations were lower than expected. However, this may reflect storage limitations rather than true biological constraints. Further testing using fresh or optimally preserved samples is recommended to observe whether they can produce commercially viable quantities of the compound.

The study's findings confirm that *Asparagopsis* growth is possible in high temperatures, opening the door for new opportunities in sustainable seaweed farming to support local livelihoods, while requiring minimal land and having limited environmental impact. If future research confirms strong bioactive potential, Seychelles could play a meaningful role in producing a natural feed additive to reduce global methane emissions, aligning with national and international climate goals.

With proper planning, seaweed aquaculture could be incorporated into the country's Blue Economy strategy, offering a low-impact industry that benefits coastal communities without harming marine ecosystems.



READ THE FULL PAPER:
[Available here](#)

REPRODUCTIVE CHARACTERISTICS OF THE BIG BLUE OCTOPUS | *By Amini Ismail Hamad*



Reproductive timing offers a valuable reference for determining when to implement management closures – the most widely used conservation measure in Zanzibar.

Community members weigh octopus catch following the opening of fisheries closure season. © MWAMBAO, Zanzibar

Rising exploitation rates of the big blue octopus, *Octopus cyanea* (Gray, 1849) threaten its sustainability in Zanzibar and the wider Western Indian Ocean (WIO) region.

In Zanzibar, *Octopus cyanea* comprises approximately 99 percent of total octopus catches and the species is crucial for coastal livelihoods and food security. Yet, escalating fishing pressure has placed significant strain on local stocks, while key biological aspects of this species remain understudied.

This knowledge gap hinders the development of effective management strategies. To address this, the study examined the reproductive biology of *Octopus cyanea* at four sites on Unguja Island (Paje, Kizimkazi, Chwaka Bay and Nungwi). The findings revealed that the *Octopus cyanea* population in Zanzibar is dominated by female individuals, which reach sexual maturity at a significantly larger body size than males. Mature individuals of both sexes are present in the population throughout the year, indicating continuous reproductive activity.

Despite year-round spawning, the population of *Octopus cyanea* exhibits two distinct peak spawning periods in June and October each year. During these peak periods, mass spawning events correlate with periods of high food availability and optimal habitat conditions. This synchronicity suggests an adaptive strategy aimed at maximizing the survival of offspring in favourable environmental conditions.

The study provides essential baseline information for strengthening octopus management in Zanzibar. It shows that reproductive timing offers a valuable reference for determining when to implement management closures – the most widely used conservation measure in Zanzibar.

Aligning closures with reproductive peaks can help to minimize harvesting pressure on *Octopus cyanea* and associated prey species, thus enhancing the long-term sustainability and recovery of the octopus population.



READ THE FULL PAPER:
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NEW PUBLICATIONS

READ THE LATEST WIOMSA PUBLICATIONS

WIOMSA and its partners recently published several reports, atlases, books and manuals advancing marine science and sustainable ocean governance in the Western Indian Ocean (WIO). Most were launched at the 13th WIOMSA Scientific Symposium (September 2025, Mombasa, Kenya). These publications address marine biodiversity mapping, nature-based solutions, critical habitat assessment and marine litter, offering valuable insights for scientists, policymakers and coastal communities alike.



13th WIOMSA Symposium report

The official report from the 13th WIOMSA Scientific Symposium (#WIOMSA2025), held in Mombasa, Kenya in September 2025, is now available. It covers the event's goals, key discussions, outcomes and future priorities for the WIO region. The Symposium brought together over 1 290 participants from 43 countries to advance ocean science, policy and community engagement. The report includes participant survey insights, key recommendations and pathways for sustainable ocean governance.

[Read the full report](#)

Beneath the blue

Discover *Beneath the Blue*, an atlas of marine topography and soft-sediment biodiversity in the WIO. Funded by WIOMSA's Marine and Coastal Science for Management (MASMA) programme, and managed by the Oceanographic Research Institute, it brings together extensive data on soft sediment habitats and their fauna in the western area of the WIO. Launched at #WIOMSA2025, the atlas draws on contributions from partner countries and research vessel surveys, providing valuable insights for decision-makers, scientists and the public.

[Access the atlas](#)

Constructed wetlands for sustainable wastewater treatment

Explore constructed wetlands as an eco-friendly solution for municipal wastewater treatment in the WIO. This recently published book was launched at #WIOMSA2025. It draws on three decades of experience, highlighting successful applications and challenges, and promoting sustainable practices to protect marine and coastal ecosystems.

[Find more about the book](#)

WIO critical habitats outlook

This publication, developed through the Global Environment Facility-funded Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities (WIOSAP) project under the Nairobi Convention, supports Sustainable Development Goals 14.2 and 14.5, aligns with the Aichi Biodiversity Targets and advances innovative marine conservation approaches in the WIO.

Building on regional efforts to halt biodiversity loss, it contributes to global goals such as restoring 30 percent of degraded ecosystems by 2030. Developed with partners including WIOMSA, the Outlook reviews key habitats, assesses current protection and identifies opportunities for expanding conservation.

[Find more about this publication](#)

WIOJMS special issue on demersal biodiversity in the WIO

The “Soft sediment, rich life: Demersal biodiversity in the WIO,” issue delves into the fascinating ecosystems of soft-sediment seabeds. It features research from the WIOMSA MASMA-funded WIO-Benth Project, covering topics from Madagascar’s demersal communities to the impact of trawling in South Africa. The publication draws on data collected during scientific surveys aboard the research vessel *Dr. Fridtjof Nansen*, conducted through the Food and Agriculture Organization of the United Nations-led EAF-Nansen Programme, with Mozambique, Madagascar and South Africa. [Find more about this publication](#)

WIOJMS Volume 24, Issue 1

The latest issue of the *Western Indian Ocean Journal of Marine Science*, Volume 24, Issue 1 (2025) is now available. It is filled with innovative research, insightful discoveries and important contributions from marine scientists across the WIO region. [Find more about this publication](#)

A focus on marine litter

This WIOMSA–Sustainable Seas Trust report highlights five years of coordinated marine litter monitoring across seven countries, building harmonized data, community ownership and tools such as the *African Litter Monitoring Manual*. The programme shows how evidence can drive action, strengthen regional collaboration and support global commitments such as the United Nations Plastics Treaty. [Read the full report](#)

Marine mammals in the WIO

Urgent conservation challenges for cetaceans in the WIO are highlighted in Issue 16 of the WIOMSA magazine . Launched at #WIOMSA2025, it features articles about cutting-edge research and community-led efforts and calls for increased awareness and collaborative action to protect whales, dolphins and porpoises from pollution, habitat loss and climate change.

[Find more about this publication](#)

Ocean literacies in the WIO

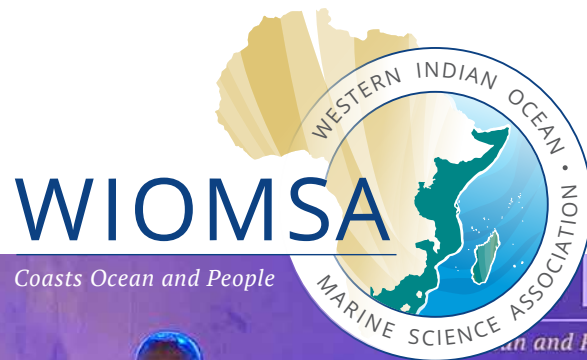
The latest WIOMSA Magazine, *Ocean Literacies in the Western Indian Ocean*, is now available. This issue broadens the concept of ocean literacy by highlighting Indigenous, local and artistic perspectives, showing how traditional knowledge and storytelling strengthen ocean stewardship. It highlights the importance of African-led visions in building a more equitable and resilient future for the region’s marine ecosystems.

[Read the full issue](#)

WIOMSA Annual Report 2024

Highlights of WIOMSA’s *2024 Annual Report* include the launch of four SCALABLE Working Groups, support for early-career researchers, capacity-building for nearly 900 people, leadership in ocean acidification policy and the milestone achievement of Scopus indexing for WIOJMS.

[Read the 2024 Annual Report](#)



Merry Christmas

BEST WISHES FOR 2026

FROM THE **BOARD OF TRUSTEES AND STAFF OF WIOMSA**

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