

MARCH 2024

VOLUME 34 NO 1

# NEWS BRIEF



*Diver Reef Evaluating Assisted Monitoring (DREAM) monitors sea water parameters at Nature Seychelles' coral reef restoration project. © Nature Seychelles.*

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# A NEW COMMITTEE APPOINTED FOR THE SCALABLE PROGRAMME

In February, the WIOMSA Board of Trustees appointed seven members to the new Programme Committee of the “Sustainable Blue Future in the Western Indian Ocean – Institutional Strengthening through Science, Capacity, and Assimilation for a Sustainable Blue Future (**SCALABLE**)” programme. At the Programme Committee’s first meeting on 8 March, Prof Lena Gipperth was appointed as chair and Ian Bryceson as vice chair.

## MEMBERS OF THE PROGRAMME COMMITTEE

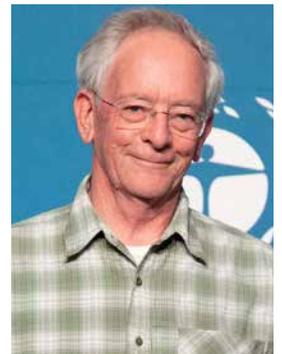
### Professor Lena Gipperth

works in the Department of Law at the University of Gothenburg, Sweden. Her research interests are within the fields of environmental law, primarily marine governance, water management and biodiversity, in relation to the legal implementation of environmental quality objectives. She is Director for the Center of Sea and Society at the University of Gothenburg, a cross-faculty center supporting marine/maritime research and education. Lena has been involved in a number of multidisciplinary and transdisciplinary research projects, accessible [here](#). She served as the chair of WIOMSA’s Cities and Coasts Programme Committee from 2018 to 2023 and as a member of the Marine and Coastal Science for Management (MASMA) Programme Committee from 2015 to 2018. She is also a Trustee of the WIOMSA Trust. works at the Department of Law, University of Gothenburg. Her research interes



### Professor Ian Bryceson

is a marine ecologist, focusing on coastal fisheries and aquaculture, resilience, vulnerability and people’s struggles for their rights. He studied biological oceanography at the University of Washington and completed his PhD at the University of Dar es Salaam in 1977 on phytoplankton ecology. He has worked for many years at the University of Dar es Salaam and the Norwegian University of Life Sciences, among other universities. His research is mainly concentrated in eastern Africa and the western Indian Ocean, but also includes multiple studies in Southeast Asia and Norway. He has published 175 scientific articles, chapters, books and reports. Ian is a founder member of WIOMSA and has served on its Programme Committee for Marine Science for Management since 2004.



## Dr Alice Newton

is a Professor in the Department of Marine and Environmental Sciences at the University of Algarve, Portugal. Her professional activity consists of research, consulting, teaching at undergraduate and postgraduate levels and research supervision. Dr Newton is a member of several scientific agencies and committees including Portugal's Institute of Marine Research and the Marine and Environmental Research Center. She is a council member of the Estuarine and Coastal Sciences Association and a member of the European Engagement Partner of Future Earth Coasts; RAMSAR Mediterranean Wetlands Scientific and Technical Network Climate Change Specialist Group; the Future Earth Ocean Knowledge Action Network development team; and the Executive Committee of Integrated Marine Biosphere Research.



providing innovative tools to uplift marginalized sections of society, Dr Fraser works to rectify the lack of information currently displayed in decision-makers' management planning.

## Leif Norrgren

is Professor Emeritus in Aquatic Ecotoxicology in the Department of Animal Biosciences at the Swedish University of Agricultural Sciences, and affiliated to the Centro de Ciências do Mar, Centre of Excellence in Marine Sciences, in Portugal. He has a background in fish pathology and diseases, environmental pollution with a focus on acidification, heavy metals, domestic and industrial effluents and novel treatment technologies to improve water quality in sewage treatment processes. Prof Norrgren has been a Swedish expert in several Organisations for Economic Co-operation and Development groups, with the goal to develop international guidelines for the regulation of chemicals.



## Dr Jessica Fraser

is a full-time Senior Lecturer at the Nelson Mandela University (NMU) Business School in Gqeberha, South Africa. Dr Fraser's focus is on developing responsible leaders in strategic operations, lean supply chain management, ports and shipping management. The intellectual property embargo placed on industry-based research, means that she has ventured towards affiliations with the Indian Ocean Rim Association and the Coastal Marine Research unit of the NMU. This broadens her research scope to combine oceans economy research with a transparent view on measuring impact. A firm believer in equal opportunity and



## Mwakio Tole

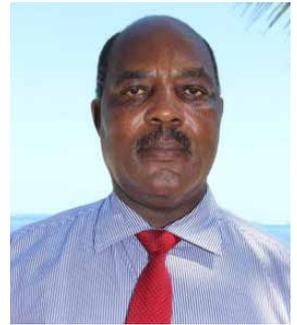
is Professor of Environmental Geochemistry in the Department of Environmental Sciences at Pwani University in Kilifi, Kenya. He obtained his PhD in Geochemistry from the Pennsylvania State University and has taught at the University of Nairobi, Moi University, Kenyatta University, and Pwani University over the years. He served as the Founding Deputy Vice Chancellor (Administration, Finance and Planning) of Pwani University (2013–2018) and Deputy



Principal (Administration and Finance) of Pwani University (2009–2013). In these positions he developed human resource and finance policies that set foundations for the culture and work ethic of the University. He served on the first Council of the Kenya National Environment Management Authority (NEMA), and later on the Board of NEMA. His major area of research interest is pollution and energy studies, as well as coastal environmental issues. Prof Tole has published extensively on water, soil and air pollution, geothermal energy exploration and the environmental impacts of geothermal energy exploitation.

### **Dr Pius Yanda**

is a professor at the Institute of Resource Assessment in Dar es Salaam, Tanzania. He holds a PhD from the University of Dar es Salaam. He led the process to establish the Climate Change Centre and PhD and Master's degrees on climate change at the University of Dar es Salaam. He has served as a lead author for the Intergovernmental Panel on Climate Change (IPCC) and in 2015 was nominated to be vice chair for the IPCC Working Group II. Dr Yanda has published extensively in peer-reviewed journals.



## **WIOMSA SECRETARIAT HOLDS ANNUAL PLANNING SESSION**

The WIOMSA team held its annual strategy and planning session in Zanzibar in January 2024. With the help of Management Consultant Damaryce Ndira, the team reviewed its performance in the past year, discussing solutions that worked and areas for improvement. The week-long planning session aimed to align organizational goals and to create a comprehensive road map for effective implementation of the association's strategic plan.



# SUPPORTING EARLY CAREER SCIENTISTS



## The latest MARG I Research Grant recipients

**WIOMSA’s Marine Research Grants (MARG) are an important mechanism to support emerging scientists to conduct research and build research capacity. The MARG I programme provides a platform for WIOMSA to work with universities and marine research institutions to advance scientific capacity and make marine science opportunities accessible to young people in the western Indian Ocean region.**

For the 2023–2024 grant application, WIOMSA partnered with the International Union for Conservation of Nature and the Global Monitoring for Environment and Security and Marine and Coastal Operations for Southern Africa and the Indian Ocean (MarCOSIO) to develop a joint call for proposals. The focus of the call was for proposals aligned with the nine priority decade actions as defined in the [Ocean Decade Africa Roadmap](#); projects that promote and strengthen the contributions of seagrass to socioecological resilience and blue economy development in the WIO region; and proposals that contribute to training and capacity building using Earth observation data and technologies in southern and eastern African marine and coastal domains.

### Unique review process

A total of 120 proposals were received, 60 from males, 53 from females and two from candidates who preferred not to stipulate their gender. The highest number of proposals was from Kenya, followed by Madagascar and Tanzania. The review of proposals involved a unique two-step process that consisted of an initial expert review and a shortlisting of the top candidates, followed by interviews with the candidates conducted by a panel from the WIOMSA Secretariat. Following the interviews, 14 proposals were accepted for funding.

## LIST OF MARG I RECIPIENTS (2023–2024)

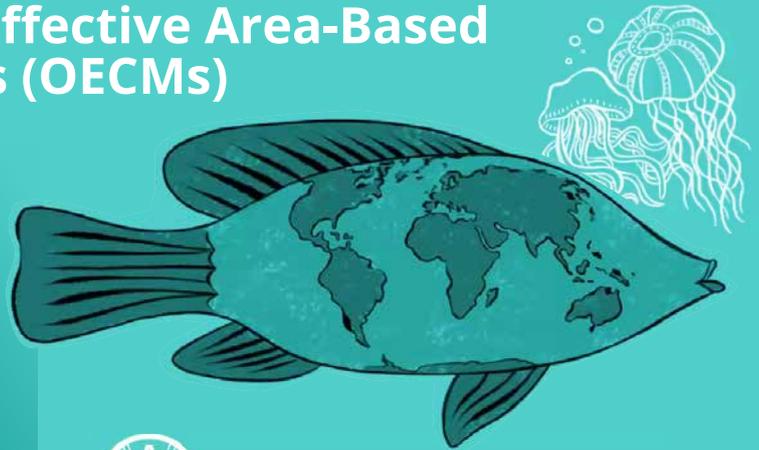
COUNTRY	NAME	NAME
Mauritius	Hanna Kureemun (PhD)	The public domain in small island states. A comparative legal study between Mauritius and Seychelles
Kenya	Cliford Owino (Master's degree)	Illuminating hidden harvest: The place of communities' local and indigenous knowledge for enhanced conservation of mangrove resources in Lamu
Kenya	Maurine Kerubo (Master's degree)	Macroplastic sedimentary profile and abundance in selected marine macroinvertebrate ( <i>Penaeus indicus</i> and <i>Panaeus monodon</i> ) and PAHs pollution along the Kenyan Coast.
Tanzania	Nashwa Mussa (Master's degree)	Role of geographical information systems and remote sensing in developing sustainable forest rehabilitation and restoration intervention strategies in Jozani Forest, South District, Unguja
Madagascar	Zafimamatrapehy Deutz Regis (PhD)	Participatory bioeconomic modelling of small-scale fisheries. The case of mud crab fisheries in Madagascar
South Africa	Simangele Sithole	Leveraging blue carbon to develop sustainable financing solutions for marine protected area management in the western Indian Ocean region
Tanzania	Jackson Lendoya Saiperaki (Master's degree)	Unlocking seagrass genetic diversity and connectivity for informed restoration and sustainable marine management in the western Indian Ocean (SeagrassGen)
Comoros	B Ali Boina Nadjim (Master's degree)	Dynamics and functioning of seagrass beds of Comoros islands
South Africa	Nokwanda Hendricks (PhD)	Occurrence and ecological risk assessment of microplastics and nano plastics in marine environment: Algoa Bay and Cape St Francis Bay, South Africa
Madagascar	Ms Mirasoa REHOVORASAMBEAZY (Master)	Analysis of sediment discharge impact on seagrass estuarine diversity, case studies from Madagascar
Madagascar	Mirasoa Rehovorasambeazy (Master's degree)	Analysis of sediment discharge impact on seagrass estuarine diversity, case studies from Madagascar
Mozambique	Torres Armando Taimo (PhD)	The effects of restoration and environmental change on mangrove macrofauna in southern Mozambique
Mozambique	Luisa Jaquelina Banze (Master's degree)	Assessment of the occurrence of toxic microalgae in bivalve mollusc harvesting and cultivation areas in Inhaca Island
Somalia	Liban Isse Farah (Phd)	Stock status and some population dynamical parameters of Somalian marbled grouper ( <i>Epimetheus fuscoguttatus</i> , Forsskål, 1775) and camouflage grouper ( <i>Epinephelus polyphekadion</i> , Bleeker, 1849)

# VIRTUAL EVENT LOOKS AT “OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES” IN THE SOUTHWEST INDIAN OCEAN

Access the webinar recording [here](#).

## Introduction to Other Effective Area-Based Conservation measures (OECMs)

In a landmark virtual event, the countries of the western Indian Ocean (WIO) region explored fisheries-related other effective area-based conservation measures (OECMs). Hosted by the Food and Agriculture Organization of the United Nations (FAO) and WIOMSA, the “Introductory Webinar on Fisheries-Related OECMs in the WIO” attracted stakeholders from across the globe on 20th March 2024.



Food and Agriculture Organization  
of the United Nations

The agenda encompassed a comprehensive overview of OECMs, highlighting their pivotal role in biodiversity conservation and showcasing successful case studies from around the world. Esteemed panelists, including FAO representatives Amber Himes-Cornell and Juan Lechuga Sanchez, provided invaluable insights into the conceptual framework of OECMs and practical guidance on their identification within fisheries contexts. Additionally, Jim Anderson offered an insightful overview of area-based management measures in the WIO region, underscoring the importance of localized conservation strategies tailored to regional needs.

**One of the webinar’s key highlights was Maya Pfaff’s elucidation of the integration of OECMs within the framework of the Global Biodiversity Framework’s ambitious target of protecting 30 percent of the planet’s oceans by 2030 (30x30).** Pfaff’s recommendations, grounded in the context of small-scale fisheries, provided a roadmap for navigating the path towards achieving this critical conservation milestone. Moreover, the establishment of the Community Management Areas working group, as introduced by Maya Pfaff, signifies

a concerted effort towards grassroots engagement and community-driven conservation initiatives.

With over 250 attendees from diverse backgrounds and regions, the webinar facilitated robust discussions and knowledge exchange, underscoring the pressing need for collaborative action in addressing the challenges posed by marine conservation in the WIO region. Leading the regional representation, Kenya boasted a substantial contingent of 75 participants. The WIO was further represented by participants from Tanzania, South Africa, Mozambique, Madagascar, Comoros, Somalia, Mauritius, La Reunion, Seychelles and Mayotte. Despite the inherent complexities and challenges, participants demonstrated a shared commitment to leveraging OECMs as a powerful tool for safeguarding marine biodiversity and ensuring the sustainability of fisheries resources.

As the webinar ended, it became evident that the collective expertise, insights and determination of participants have laid a solid foundation for advancing fisheries-related OECMs in the WIO region. On 16 to 18 April, FAO and WIOMSA will convene with WIO government representatives with mandates for fisheries and environmental management in Mombasa, Kenya, to map a route towards the identification of fisheries-related OECMs in the WIO region.

# CHARTING A COURSE FOR SEAGRASS CONSERVATION AND RESEARCH IN TANZANIA

| By *Blandina Lugendo*



**In a remarkable gathering of minds and expertise, the School of Aquatic Sciences and Fisheries Technology (SoAF) at the University of Dar es Salaam (UDSM), successfully convened an extraordinary workshop to synthesize the current state of seagrass knowledge in Tanzania.**

Held at the scenic Tanga Beach Resort in Tanga from 4 to 5 March, this event was made possible through the generous support of WIOMSA. It brought together 17 seagrass experts from esteemed institutions such as SoAF, the Institute of Marine Sciences, the College of Natural and Applied Sciences at UDSM, the Tanzania Fisheries Research Institute (TAFIRI), Sokoine University of Agriculture (SUA), the Marine Protected Areas Research Unit and the Wildlife Conservation Society.

The workshop provided a platform for participants to present their ongoing or completed research projects on various aspects of seagrass, including social economics, the impact of anthropogenic pollution, mapping and geographic information system techniques, blue carbon, ocean acidification, microbiology, molecular genetics, fisheries, seagrass ecology and restoration efforts. The presentations highlighted the diverse and interdisciplinary nature of seagrass research, suggesting its importance in understanding and conserving marine ecosystems. They also illuminated the complexities of seagrass conservation, which encompasses not only the protection of these crucial habitats but also the myriad life forms they support, including the fish species fundamental to local and global food security.

**These underwater meadows, often undervalued in conservation dialogues, are now getting the attention they critically deserve.**

The workshop was not just a forum for sharing knowledge but also a catalyst for action. The participants laid out a roadmap for the future, emphasizing the need for establishing seagrass restoration sites and developing comprehensive monitoring guidelines tailored for Tanzania. These initiatives are crucial for the sustainable management and conservation of seagrass habitats, which play a vital role in supporting marine biodiversity and providing ecosystem services. In a significant move to coordinate and enhance seagrass research and conservation efforts in the country, the workshop participants agreed to form the Seagrass Working Group for Tanzania. This group will be hosted at SoAF UDSM, with Dr Blandina Lugendo serving as the coordinator, assisted by Dr George Rushigisha from TAFIRI and Dr Liberatus Lyimo from SUA.

**The Seagrass Working Group is now active on social media platforms, including Instagram, X and Facebook, under the name [Seagrassers\\_TZ](#).**

This online presence will enhance communication, collaboration and outreach efforts.

# WIOMSA AT THE 2024 INDIAN OCEAN RIM ASSOCIATION'S INTERNATIONAL DAY CELEBRATIONS

| By Obakeng Molelu

On 7 March, the University of South Africa and the Department of International Relations and Cooperation (DIRCO) hosted the celebration of the Indian Ocean Rim Association (IORA) International Day in Pretoria, South Africa.

The theme was: *Enhancing Sustainable Indian Ocean for Future Generations: Our Ocean Our Life.*



The celebration marked a milestone for the establishment of IORA which over 27 years has evolved into the primary regional organization spanning Africa's southern and eastern coasts to the Gulf, South and Southeast Asia, and Australia. **Its membership has grown from 14 to 23 states, with 12 Dialogue Partners, including four permanent United Nations Security Council members.** The Jakarta Concord of 2017 outlines key objectives across six priority areas (maritime safety and security; trade and investment facilitation; fisheries management; disaster risk management; tourism and cultural exchanges; and academic, science and technology cooperation) and two cross-cutting areas (blue economy and women's empowerment).

At the celebration, I spoke on behalf of the youth and early career researchers of the Indian Rim region. I used the opportunity to inform the academics and delegates from IORA member states that networks such as the Western Indian Ocean Early Career Scientists Network (WIO-ECSN) and the soon to be launched IORA Early Career Professional network are working energetically to establish channels for

empowerment and communication for early career ocean professionals (ECOPS) in the WIO and IORA regions. They are also finding ways to showcase their innovative solutions to various environmental problems, addressing the triple planetary crisis and how to use the blue economy to create sustainable livelihoods in coastal settlements while ensuring biodiversity conservation. Lastly, I raised the fact that more work and commitment is required to fill the employment and limited opportunity gaps for the youth. Looking to the private sector and engaging them in science is an essential step to effective youth and ECOP participation in the IORA region.

The IORA Day celebration also provided an opportunity to network and to begin looking to partnering and collaborating with marine scientists beyond the WIO region. DIRCO was very interested in the work of WIOMSA and its influence in the western Indian Ocean region. WIO-ESCN looks forward to being a part of IORA and encouraging more marine scientists to join the Indian Ocean Rim Academic Group to conduct research within the six priority areas outlined by the Jakarta Concord of 2017.

# WIOMSA ATTENDS AFRICA'S BLUE ECONOMY INNOVATION SUMMIT | *By Obakeng Molelu*

Ocean Innovation Africa is a platform that showcases African initiatives and brings together international entrepreneurs, investors, scientists, businesses and leaders working towards creating a positive impact on our Oceans. The Ocean Innovation Africa summit took place from 20 to 22 February in Cape Town, South Africa.



**On Day one of the summit,** I participated in the panel for Decision-Ready Data for Coastal Zone Management which was organized by Digital Earth Africa (DEA). In the session, DEA presented on their freely available analysis-ready maps and courses.

**On day two,** the fireside discussion featured [Dr Arthur Tuda](#), [Torsten Thiele](#) and [Dr Nassim Oulmane](#) who all contributed their unique perspective on carbon and biodiversity metrics in blue economy development.

**Over the three days,** we were exposed to remarkable blue innovations and blue tech solutions coming from the African continent. Young innovators were eager to demonstrate their solutions, such as innovative seaweed farming and the use of machine learning to track the movement

of sardines so as to assist in decision-making about the removal of shark nets, the timing of dive tourism and to inform fishers about the arrival of sardine shoals. Investors also had an opportunity to present their offerings, including catalyst funds that provide venture building support and loans with flexible repayment plans and a preference for women-led start-ups.

Participants from UN Climate Champions, United Nations Economic Commission Africa, International Union for Conservation of Nature, WWF, Indian Ocean Commission, the German development agency GIZ, and representatives from more than 20 countries attended the summit.

### EXPERTS MEET IN MOMBASA AHEAD OF COP 11

| By Yvonne Waweru



**The meeting of the Bureau of the Nairobi Convention was held on 10 to 14 March in Mombasa, Kenya. It was attended by four of the five Bureau members, namely Madagascar (Chair of the Bureau), Tanzania (Vice-Chair Work Programme), Seychelles (Vice-Chair Resource Mobilization) and Kenya (Rapporteur).**

Also in attendance were several technical experts from the western Indian Ocean (WIO) region who contributed expertise on a broad range of themes including ocean governance, marine spatial planning, marine water quality, marine conservation and information management, among others.

**The meeting was important for the upcoming Nairobi Convention eleventh Conference of Parties (COP 11) which shall be hosted by Madagascar in August 2024.**

The priority agenda item was the finalization of a regional integrated programme in response to Decision 1.3 of the ninth Conference of Parties which requested the Secretariat to: *“develop a regional integrated programme for the full implementation*

*of the strategic action programmes developed under the WIO-LaB project, the Agulhas and Somali Current Large Marine Ecosystem project, the Southwest Indian Ocean Fisheries Commission and the Climate Change Strategy for the Nairobi Convention Area, and their extension beyond the lifespan of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities and the Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonization and Institutional Reform project, for the efficient and harmonized delivery of the project outputs and outcomes”.*

To achieve this objective, Members of the Bureau and experts were engaged in interactive sessions that discussed priority components and themes that

should be included in the integrated programme. The finalization of the integrated work programme comes at a time when significant advances on blue economy implementation have been made by Nairobi Convention countries, including the use of marine spatial planning and innovative financing mechanisms such as blue bonds and debt swaps which were well covered in the discussions. Based on the ten-year integrated programme, a draft Nairobi Convention Work Programme for the period 2025 to 2028 was also discussed and developed.

Additionally, there was a session on areas that should be included as COP 11 decisions. This was informed by the draft Nairobi Convention Work Programme (2025 to 2028), outcomes of the 2023 Science to Policy meeting that was held in Maputo, Mozambique, and ongoing global and continental policy processes.

One of the crucial take-aways from the Mombasa meeting is the need to implement global commitments, including the Kunming Montreal Biodiversity Framework, Biodiversity Beyond

National Jurisdiction Treaty, the newly adopted Global Framework on Chemicals and the ongoing negotiations on an international treaty on plastics. The meeting also emphasized the need to adopt integrated approaches in programme implementation, such as source to sea approaches, and the importance of forging partnerships with important stakeholders such as the private sector and local communities.

It took a lot of dedicated effort to get the Nairobi Convention draft integrated Work Programme, draft Work Programme (2025–2028) and decision areas for COP 11 close to the finish line. This would have been challenging without the dedication of the Bureau and the support from the Nairobi Convention Secretariat, technical experts and the financial support of a broad range of donors. The outputs of the meeting were presented at the Focal Points meeting which was held on 27 March 2024 in Durban, South Africa, and will be finalized before COP 11.

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***At the close of the Mombasa meeting, one thing was clear: to address the many sustainability challenges we face in the WIO, from biodiversity loss to climate change, countries will need to draw from the full community of actors and stakeholders working on these issues at global, continental, regional, national and local levels.***

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## CORAL REEF CONSERVATION: INSIGHTS FROM A CAPACITY DEVELOPMENT WORKSHOP

*Participants brainstorming solutions to the barriers for coral reef conservation and restoration*



**Coral conservationists from the global south convened in Mombasa, Kenya, in March to identify barriers and develop a workplan to improve capacity for coral reef conservation and restoration.**

To grow the capacity for successful coral conservation and restoration in the global south, CORDAP (Coral Research and Development Accelerator Programme) hosted a workshop in Mombasa from 12 to 15 March. The workshop brought together representatives from academia, industry, conservation, restoration and government from 19 countries of the global south (the nations of the world which are regarded as having a relatively low level of economic and industrial development and are typically located to the south of more industrialized nations).

The workshop shed light on the pivotal importance of capacity development in moving forward coral conservation and restoration endeavours. Conservationists face numerous challenges in many mid- and low-income nations, where coral reefs are often abundant and essential for the well-being of local communities. From the array of participating countries, common challenges surfaced around access to research resources and conservation infrastructure, underscoring the

urgent need to invest in human capital alongside technological innovation. And, despite the availability of international grants to fund coral conservation initiatives, projects originating from the global north often receive a disproportionate share of funding compared to those from the global south – where the need is most acute. This discrepancy is the result of language barriers, a lack of grants for baseline research and monitoring, and because many grant evaluations prioritize factors such as existing facilities and access to innovation, which are frequently limited in less economically developed nations, thus exacerbating disparities in resource allocation.

**Over four intensive days, participants worked to identify the most pressing challenges impeding capacity development in coral reef conservation and restoration in the global south and devise actionable strategies to surmount these obstacles.** The workshop facilitated multiple exchanges, predominantly focused on group brainstorming and discussion,

amplifying the voices and perspectives of a diverse, gender-balanced group of participants from the global south working in different sectors within the research and conservation fields and spanning the full spectrum of career stages.

**Day one of the workshop was dedicated to identifying the barriers and revealed a remarkable consensus among the participants. These barriers were nested within six overarching categories:**

“collaborations (international, cross-sector, scientists+policymakers, community engagement); “project management”; “capacity development”; “funding”; “facility, tools, research, and innovation”; and “policy and governance”. Through a collaborative voting process, participants homed in on the most pressing challenges within each category, laying the groundwork for targeted interventions and solutions. Building upon this foundation, **day two was dedicated to solution-focused endeavours.** Participants worked in groups to strategize potential solutions for each identified challenge. **Day three saw these solutions crafted into actionable plans for implementation,** emphasizing detailed stakeholder engagement, the timeline and the necessary resource allocation.

Central to the workshop’s objectives was translating the discussions and action plans into tangible outcomes. **Day four thus pivoted towards crafting strategies to amplify the visibility of these action plans** and, more generally, outputs derived from the group discussions, ensuring that the momentum generated within the workshop would translate into real-world impact. Some suggestions were to summarize the discussions in a scientific publication and develop a road map that could inform CORDAP and other funding agencies.

**As the kick-off event for what CORDAP and its partners envision will be a long-term programme, the CORDAP Capacity Development in the Global South workshop stands as a beacon of hope and progress in the global effort to conserve coral reefs.**

Recognizing that investing in the people doing the work is as crucial as investing in the conservation actions themselves, the workshop emphasized the importance of empowering communities with the resources needed for success. CORDAP hopes the bonds forged and insights gained during this transformative event will continue to reverberate, catalysing sustained action and innovation in coral reef conservation worldwide.



Participants present the result of their discussions to the whole group

**This article was written by the workshop attendees: Rocha de Souza M, Amir FH, Amri AY, Babu I, Bhagooli R, Dempsey AC, Djakiman C, Faruk O, Gamage I, Geneid Y, Golbuu Y, Gube D, Hutahaeen A, Karisa J, Kaullysing D, Knoester E, Licuanan WY, Lourenço C.R., Mana R, Matairakula U, Mayfield AB, Mbutia K, Mendoza-Quiroz S, Montoya-Maya P, Mwasangu D, Nassongole B, Nduati C, Ochoa GM, Ogega N, Osuka E K, Perera P, Ramachandran R, Roch C, Tuda A, Wambugu J, Yranzo Duque, A.**

# RCMRD LAUNCHES A REGIONAL CENTRE OF EXCELLENCE

| *By Pascal Thoya*



**On 22 March a Regional Centre of Excellence (RCoE) was inaugurated by the Regional Centre for Mapping of Resources for Development (RCMRD).**

The inauguration, which took place at the RCMRD headquarters in Kasarani, Kenya, is regarded as a significant development in environmental and resource management for the eastern and southern African region.

The RCoE aims to leverage the successes of the Biodiversity and Protected Area Management Programme (BIOPAMA) by further promoting the conservation and sustainable management of biodiversity and natural resources in protected areas and their surrounding communities across Africa, the Caribbean and the Pacific regions. It plans to extend its support to 24 countries in eastern and southern Africa, including Botswana, Comoros, Djibouti, Eritrea, Eswatini, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, South Sudan, Sudan, Tanzania, Uganda, Zambia and Zimbabwe. The RCoE will provide these countries with current, relevant information to aid in the sustainable management of forests, biodiversity and marine ecosystems.

The RCoE inauguration received robust backing from pivotal BIOPAMA partners, including the European Union, the European Commission's Joint Research Centre, the Environmental Systems Research Institute and the International Union for Conservation of Nature. This broad support underscores the collective commitment to enhancing environmental conservation and management in the region.

**The event was attended by Honourable Soipan Tuya, Kenya's Cabinet Secretary for the Ministry of Environment, Climate Change and Forestry who was the main guest. Hon. Tuya commended the RCMRD for spearheading the RCoE, recognizing its crucial role in empowering the countries of eastern and southern Africa to address environmental challenges more effectively.**

By focusing on overcoming data-related hurdles, the initiative aims to facilitate the development of informed policies for environmental stewardship and climate action.

## REGIONAL NEWS

RCMRD launches a regional centre of excellence

...continued

A capacity building workshop was conducted as a lead-up activity to the RCoE inauguration. It focused on various data tools essential for environmental management, showcasing the contributions of RCoE partners. The emphasis was on the transformative potential of digital data

and earth observation technologies. These tools are pivotal for advancing resource management and monitoring, highlighting the RCoE's strategic approach to leveraging technology for environmental sustainability.



Pascal Thoya and Obakeng Molelu  
at the BIOPAMA workshop

### WIOMSA continues to support the RCMRD

WIOMSA has maintained a long-standing partnership with the RCMRD and this collaboration is set to advance further with the inauguration of the RCoE, whose current objectives include some focus on marine ecosystems. At the inauguration event, WIOMSA outlined its significant programmes that are poised to enhance the RCoE's objectives. These initiatives include the integration and application of data, information and knowledge, as well as capacity building in key areas such as ecosystem assessments, marine conservation planning and the management of marine protected areas. The synergy between WIOMSA and the RCMRD under the RCoE framework aims to strengthen marine conservation efforts and the sustainable management of marine resources in the WIO region.

## SCIENCE TO THE PEOPLE

| by Sarah Ater, Jacqueline Uku, Susana Kihia and Nina Wambiji

**In 2024, the collaboration between Kenya Marine and Fisheries Research Institute (KMFRI) and Alliance Française Mombasa in taking science to the community entered its second year.**



*Panel discussion at the Science Café on 26 January 2024*

This year, through the Mombasa Ocean Festival (MOF), Alliance Française Mombasa has begun to work with targeted schools who now have an opportunity to interact with scientists at KMFRI through the “Students meet scientists” initiative. This event gives scholars an opportunity to experience the day-to-day life of a scientist by visiting KMFRI. In addition, KMFRI and Alliance Française Mombasa are teaming up with the Wildlife Clubs of Kenya and the County Government of Mombasa to deliver an even more impactful edition of MOF. A wide range of marine outreach activities is being designed for different target groups for the MOF which takes place from 3 to 8 June 2024.

Meanwhile, the Science Cafés, which provide an opportunity for researchers to share their work with the public, also entered their second year in 2024.

**Each Science Café is unique, accommodating individual researcher’s preferred mode of delivery and allowing the participants to engage directly with the presenters and with each other.**

Some Science Cafés have featured art exhibitions, spontaneous poetry and music from the audience as well as virtual presenters and outdoor big screen films. In 2023, ten Science Cafés were held, reaching an audience of well over 400 people. In 2024, we are planning to host 11 Science Cafés on the last Friday of each month.

**The first Science Café of 2024 was held on 26 January and was called “The Sea Turtle Movie Night”. It featured two turtle movies followed by a panel discussion moderated by Jacqueline Uku of KMFRI.** During the discussion, Juma Adero (producer of the film *If turtles could talk*) shared his experience in making the turtle film; Victoria Firth (a mural artist who has done turtle illustrations in Watamu) talked about working as a professional artist and Joey Ngunu (a researcher on turtles at the Local Ocean Conservation (LOC), highlighted some aspects of turtle research and the challenges that turtles face.

After meeting as panellists at the Science Café, Juma Adero and Joey Ngunu are presently collaborating in the creation of a more comprehensive turtle conservation film for the LOC. The LOC will also be support a visit to their office in Watamu by a school, in response to a request by a junior school student who participated in the Science Café.

**“Tuna, the ‘gold’ of the sea”, was the feature talk for the second Science Café held on 23 February.** Fisheries scientists from KMFRI, Gladys Okemwa and Edward Kimani delivered **keynote presentations** and were joined by an expert panel featuring Doreen Simuyu of South West Indian Ocean Tuna Association, George Maina of The Nature Conservancy and Asma Awadh of the World Wide Fund for Nature (WWF-Kenya). They shared insights and their experiences of the Kenyan tuna

fishery. The engaging session highlighted the progress made in researching the Kenyan tuna fishery, at both the small-scale and industrial scale. Lessons were shared on the innovative considerations for collaborative and sustainable management of the tuna fishery; and the economic potential of tuna value addition. The discussions offered fresh perspectives on all things “tuna” and emphasized the need for data-based decision-making in the fishery’s management.

Science Cafes were planned for 22 March and 26 April. The March event focused on advances in seagrass research, conservation and monitoring, in celebration of World Seagrass Day held annually on 1 March. Panellists included the seagrass research team from KMFRI – Lilian Daudi, Charles Muthama and Amy Mumo.

#### Participants at the Science Café on 23 February 2024



# DREAMING BIG: SEYCHELLES PIONEERS CONSERVATION TECHNOLOGY THROUGH INNOVATIVE PARTNERSHIP

| By Liz Mwambui

Daniel Hugelmann - OceanLabs Seychelles (L) and Dr Nirmal Shah (R) Nature Seychelles |



Nature Seychelles has joined forces with two local companies OceanLabs Seychelles and Kingsgate Electronics to pioneer locally-made, cutting-edge conservation technology. As a result of this revolutionary collaboration, two devices have been co-designed and co-produced entirely in Seychelles, named NEST (Nest Electronic Surveillance of Turtles) and DREAM (Diver Reef Evaluation Assisted Monitoring), as well as the installation of an innovative microwave internet carrier for fast and efficient transfer of large packets of data, including videos from Cousin Island Special Reserve.

**“This is a significant milestone, since it is the first time technology has been locally engineered in Seychelles for conservation,” said Dr. Nirmal Shah, Chief Executive of Nature Seychelles. “I saw a gap in our conversation toolkit and met up with a brilliant young Seychellois, Daniel Hugelmann of OceanLabs to discuss custom-made devices tailored to our needs. These devices represent a new avenue for conservation entities and technology companies to collaborate to solve conservation challenges.”**

“Our collaboration with Nature Seychelles has yielded remarkable results. By combining cutting-edge technology with state-of-the-art techniques such as 3D printing, we have created tailor-made devices that meet the unique needs of Nature Seychelles’ users and their specific environments,” Mr. Hugelmann said. “Our iterative process of joint discussions, engineering work, prototyping, and fieldwork is a testament to our commitment to producing reliable real-world solutions. Through collaboration and hard work, we can achieve extraordinary results that benefit us all, right here in Seychelles.”

The devices are part of Nature Seychelles' Smart Island System initiative, which aims to enhance monitoring of terrestrial and marine activities on Cousin Island. Nature Seychelles received financial backing from tech giant Huawei and the International Union for Nature Conservation's Tech4Nature project, a global partnership to scale up success in nature conservation through digital technology innovation.



*NEST automatically monitors and transmits turtle nest environmental data*

**Both NEST and DREAM have been rigorously tested in the field over the past few months, showing their effectiveness in real-world conservation scenarios.**

DREAM, a fully automated sensor platform, monitors sea water parameters. Currently deployed by the Reef Rescuers in the coral reef restoration project on Cousin and Praslin Islands, DREAM autonomously collects data during dives while attached to a diver's air tank. The collected data, including pH, light, and dissolved oxygen levels, enhances the understanding of water quality at project sites and helps to identify threats such as algal overgrowth. The data is automatically

uploaded post-dive and can be accessed through a user-friendly web interface.

**The data provided is very valuable in view of the current bleaching alert for the Western Indian Ocean.**

Similarly, NEST is being used during the 2023-24 Hawksbill turtle nesting season. The device automatically monitors and transmits turtle nest environmental data, including temperature, humidity, and oxygen. All three factors impact the incubation length, hatchling sex, embryo survival, and other physical characteristics of sea turtles. It detects movement inside the nest, which could indicate a disturbance or a hatching event.

Another Smart Island System funded innovation is a 5GHz microwave link and wireless network installed by Kingsgate Electronics connecting the Nature Seychelles CORAL building on Praslin and Cousin. It provides a robust and high bandwidth internet connection to bolster current and future conservation efforts. These include uploading data from the NEST device as well as a future project for live video streaming from wildlife cameras at strategic locations in the Special Reserve.

**The collaborative partnership between these 3 organisations illustrates the power of local innovation in advancing conservation and paves the way for future initiatives.**

**For more information please contact:**

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# NEW VOKCE PROJECT WILL ASSESS ENVIRONMENTAL STRESSORS ALONG THE KENYAN COAST

| By Jacqueline Uku, Agnes Muthumbi and Marie-Alexandrine Sicre



***Over a five-year period, a project entitled “Vulnerability of Kenyan Coastal Ecosystems Under Climate and non-Climatic Stress” will undertake case studies to determine the impacts of climate and non-climatic stressors in port development (Mombasa, Lamu and Shimoni) and coastal land use changes (Gazi and Malindi) in Kenya.***

The project is funded by the Centre National de la Recherche Scientifique and coordinated by Marie-Alexandrine Sicre of France, and Jacqueline Uku of Kenya. The partnership is supported by Prof. Agnes Muthumbi of the University of Nairobi.

The aim of the project is to develop research capacity in Kenya and the western Indian Ocean region in the field of climate science and assessment of non-climate stressors through joint supervision of PhD students, summer schools and visits by Kenyan students and researchers to laboratories in France.

## **Researchers from France and Kenya presented high-level research findings at a workshop in September 2023**

The project was initiated in September 2023 with a kick-off meeting held in Mombasa from 4 to 6 September in which researchers from France and Kenya presented high-level research findings

in areas related to climate reconstructions over the past centuries through the use of corals and marine sediments in order to assess key drivers of droughts; and establishing baseline contamination of polyaromatic hydrocarbons (PAHs) released by harbour activities and maritime traffic, and better quantifying microplastics contamination.

Following the kick-off meeting, a field sampling expedition took place on 7 September 2023 at Mwache Creek. Sampling activities were carried out at 11 designated stations positioned longitudinally along Mwache Creek. A total of 22 samples were collected for the measurement of PAHs, with replicate surface samples obtained from each of the 11 stations. In addition, 10 cm long cores were gathered from 10 out of the 11 stations to analyse microplastics. A 38 cm core was extracted using a UWITEC corer, and sub-samples were obtained at 0.5 cm intervals, resulting in a total of 65 samples. The measurement of Pb-210 activity is planned

## REGIONALNEWS

*New VOKCE project will assess environmental stressors along the Kenyan coast*

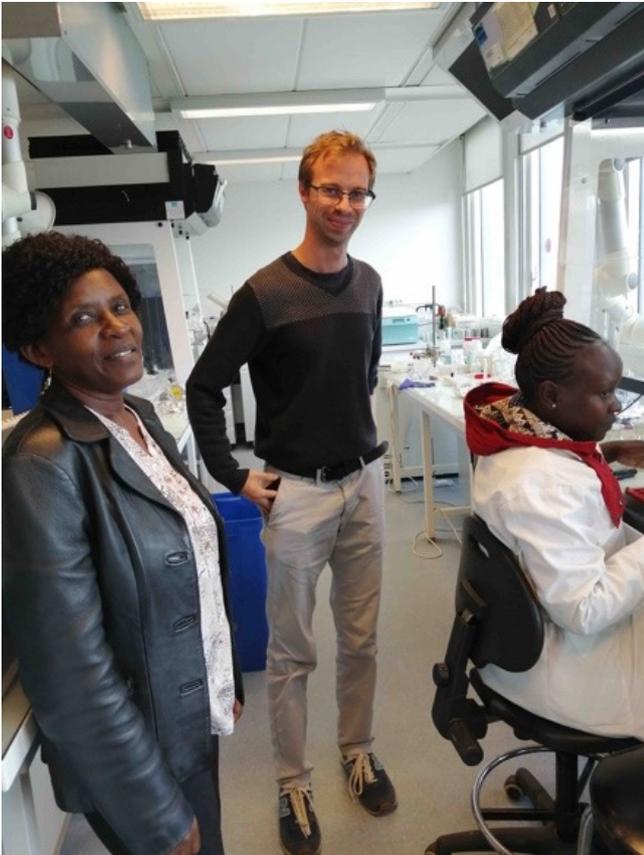
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to evaluate historical sedimentation rates. Both the surface sediments and the core sub-samples have been shipped to France for analysis, to be conducted by Maurine Kerubo, the project's PhD student from the University of Nairobi.

The next project activity will be to organize a summer school in Mombasa in July/August, targeting students who will have completed their first year of a Master of Science program and are interested in either climate studies or assessment of non-climate stressors that impact coastal ecosystems,

or sediment geochemistry to evaluate impactful processes like erosion on coastal ecosystems. The advertisement for these opportunities will be circulated in March/April 2024.

The VOKCE meeting was followed by a visit in mid-September by Prof. Agnes Muthumbi of the University of Nairobi, and PhD student Maurine Kerubo to LOCEAN the main partner French laboratory located at Sorbonne University, Paris.



*The lab visit to France was supported by PAMOJA, a bilateral collaboration between France and Kenya that is in addition to the international research project, VOKCE.*

### Contacts:

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**Dr Jacqueline Uku:** [jacquiuku@gmail.com](mailto:jacquiuku@gmail.com)

### UNDERSTANDING THE CONTRIBUTION OF SMALL-SCALE FISHERIES TO THE SDGS | *By Rodolphe De Villers*



*Fish2Sustainability Group*

**Small-scale fisheries, a category that includes artisanal and recreational fisheries, are at the core of most coastal communities of the southwest Indian Ocean (SWIO) region. They employ about 500 000 people and land around 80 percent of the region's fish catches.**

Small-scale fisheries are the backbone of most coastal economies, providing incomes that contribute to the well-being of rural community households, which do not always have alternative livelihood options. With the rapid global decline of the ocean's health, the changing climate impacting fish distribution, and the increase in human populations requiring larger amounts of food, the sustainability of many fisheries is in jeopardy. As such, the sustainability of small-scale fisheries in the SWIO is the focus of attention of numerous scientific studies.

Fisheries is far from the only sector in crisis and the United Nations is coordinating an international initiative that aims to monitor and improve the sustainability of many components of our societies through the use of 17 Sustainable Development

Goals (SDGs). For instance, SDG1 and SDG2 aim to help eradicate poverty and hunger, respectively. SDG3 aims to improve health and well-being, and SDG4 aims to improve education. Each SDG has several associated targets that are regularly assessed and can be used to orient public policies to ensure progress towards those targets. Fisheries is typically associated with SDG14 ("Life below water") through a number of its targets, such as target 14.4 on sustainable fishing and target 14.5 on the protection of coastal and marine areas. For this reason, the fisheries sector has often been approached solely through the lens of its contributions to SDG14. However, small-scale fisheries are known to provide employment, food and revenues that can improve health and well-being, thereby contributing much more broadly to the SDGs.

Our project called Fish2Sustainability designed and tested a new method of measuring and understanding the diverse contributions that the small-scale fisheries sector makes to the SDGs. The project, led by the French national research institute IRD, involved an international team of 30 experts from 12 countries (including Madagascar, Kenya and La Réunion/France) who worked closely for two years with local partners involved in the fishing sector. A review of the scientific and technical literature helped us identify targets related to 12 of the 17 SDGs associated with small-scale fishery activities. We designed a scoring method that can be used to elicit knowledge from experts and stakeholders, helping us assess how specific fisheries in a given region contribute to the targets of the 12 SDGs identified. With the help of our partners, we tested the method in many case studies in Africa (Kenya, Madagascar,

and Nigeria) and Latin America (Colombia, Ecuador and Mexico). This approach helped characterize how those fisheries contribute to the 12 SDGs and highlighted how different fisheries (e.g. subsistence vs commercial fisheries) make very different contributions.

**The method and tools we developed were recently published in the international journal “[Sustainability Science](#)” and shared as [open data](#) so they can be used by other groups around the world to study their fisheries.**

We hope this method will help users better understand the diverse contributions of small-scale fisheries to the SDGs and help countries reach SDG targets by promoting sustainable fishery practices.



*Fish2Sustainability Group*

# STRENGTHENING RESILIENCE POTENTIAL ASSESSMENTS FOR CORAL REEF MANAGEMENT

| By Mishal Gudka

Coral reefs are one of the most diverse and valuable ecosystems in the world but are also amongst the most threatened. Protecting these and other ecosystems for the future requires evidence and data to make the best decisions. As global warming and other issues like pollution and overfishing continue to damage coral reefs, a priority is to identify the reefs that are likely to survive these threats – a characteristic known as “resilience”.



*A resilient reef should have a variety of hard corals and be a home to all types of fish including sharks. © Tom Vierus / Ocean Image Bank*

Coral reefs are one of the most diverse and valuable ecosystems in the world but are also amongst the most threatened. Protecting these and other ecosystems for the future requires evidence and data to make the best decisions.

**As global warming and other issues like pollution and overfishing continue to damage coral reefs, a priority is to identify the reefs that are likely to survive these threats – a characteristic known as “resilience”.**

Reef resilience is measured by coral reef researchers and managers using data on reef health and threats in a “resilience potential assessment”. These assessments can be used to support decision-making, such as prioritizing

which reefs may need more protection, and what actions can be taken to provide this.

Our study looked at how these assessments have been carried out around the world to determine whether they are being implemented in a way that produces the most reliable information possible. We looked specifically at the analytical aspects of the assessments, and not how they were used in practice.

Most resilience assessments collect data that are very useful for coral reef management, despite the fact that they are often conducted with limited funding and time. However, we found several areas where assessments could be strengthened, and we provide recommendations that can be followed by anyone looking to do their own assessment.

Dr David Obura monitoring  
a heavily bleached coral reef.  
© Keith Ellenbogen



Our review highlights the importance of taking steps to ensure assessments are meaningfully and reliably related to resilience. This can involve comparing the condition of reefs relative to ideal or historical states, for example. Another important but rarely completed step, is to test how well the results link to the actual resilience of coral reefs. This can be achieved by monitoring coral reefs during a disturbance, like a bleaching event, to see whether reefs that were predicted to perform better from assessments are in fact more resilient. Despite these shortcomings, assessments generally do a good job of including data that cover a range of aspects of a coral reef's functioning. For example, hard corals are very important because they build the habitat and structure for the rest of the species that live on reefs, and we found that all assessments included a measure of hard coral. However, other things like the reef fish community and population, were not always represented.

As science moves towards more data sharing and collaborations, we encourage assessors to also make underlying data accessible and available to a wider audience. This can allow data to be re-analysed to improve the accuracy of resilience potential assessments, or to contribute to broader assessments which inform local and national actions and policy, such as marine spatial planning.

**The recommendations we suggest, which draw from other established ecosystem assessment frameworks, would lead to outputs that more closely align with the actual resilience of reefs.** This will enhance the reliability of the information provided to decision-makers, and ultimately lead to more effective coral reef management.



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

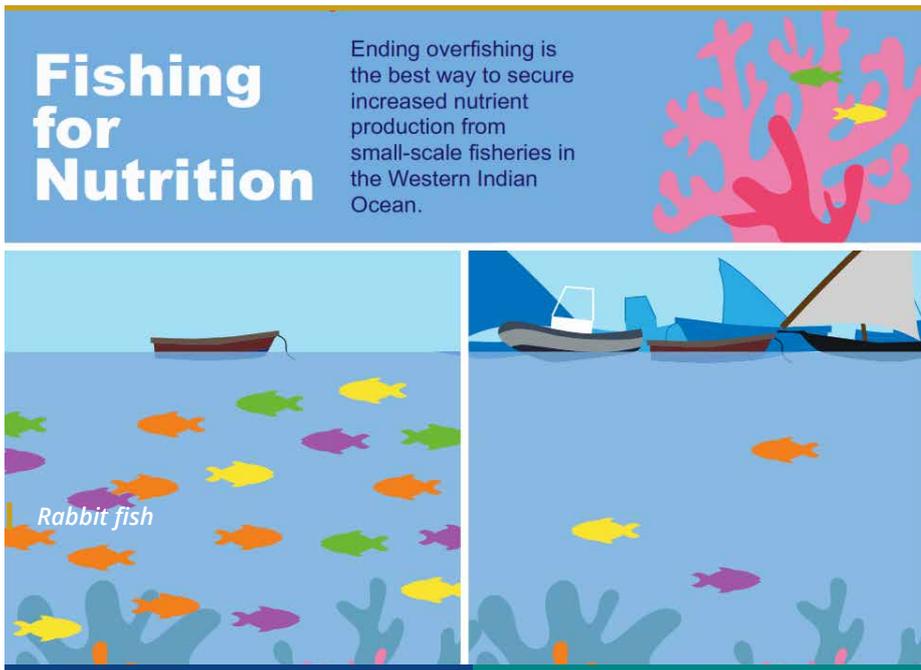
# NUTRITION LOST TO OVERFISHING ESTIMATED IN THE WESTERN INDIAN OCEAN | *By Tim McClanahan*

## Fishing for Nutrition

Ending overfishing is the best way to secure increased nutrient production from small-scale fisheries in the Western Indian Ocean.

### Overfishing drives lost nutrient production in WIO artisanal fisheries;

- Enhancing nutrient production depends on restoring biomass to sustainable levels;
- Modest increases in nutrient density are associated with fish functional traits; and
- Overfishing causes countries in the WIO to lose the equivalent of thousands of daily meals.



Rabbit fish

**Recent advances in estimating the nutrition of fish at the species level have created the possibility of managing fisheries to maximize nutrient delivery. Combining this information with large-scale estimates of fish production by artificial intelligence algorithms has now allowed for estimates of nutrient delivery. These estimates suggest that nutrient production is influenced by fish species and body sizes and that maximizing sustained yield production is the best way to increase nutrient delivery.**

The paper uses large datasets and a machine learning algorithm to evaluate dietary nutrient production in the nearshore artisanal fisheries of the WIO. It finds that in the western Indian Ocean (WIO), thousands of child nutrient portions are being lost to overfishing. Artisanal fisheries produce significant amounts of selenium, omega-3 and zinc, and achieving biomass-based management targets would significantly increase these benefits. Increased nutrient densities were associated with catches made up of predominantly low- and mid-trophic level species with smaller body sizes and higher growth coefficients, but that were still above the threshold for sexual maturity. Whereas existing approaches to nutrition-sensitive fisheries

management sometimes advocate maximizing nutrient densities (quality) rather than yields (quantity), the study finds that both aspects of nutrient production are important and restoring biomass will be a key management strategy to support nutrition-sensitive governance.

### READ THE FULL PAPER:

Galligan, B.P. & McClanahan, T.R. 2024. Tropical fishery nutrient production depends on biomass-based management. *iScience*.

[Available here](#)

### WIOMPAN HOSTS MENTORSHIP WORKSHOP

| *By Deidre de Vos*



**In February, the Western Indian Ocean Marine Protected Areas Professionals Network (WIOMPAN) concluded a mentorship workshop in Cape Town, South Africa. The event marked a significant step forward in the western Indian Ocean region's efforts to enhance the effectiveness of marine conservation areas.**

With support from the Office Français de la Biodiversité, Expertise France and other key partners, the workshop brought together 17 mentors from Kenya, Madagascar, Mauritius, Mozambique, South Africa and Tanzania. These mentors represented a diverse range of backgrounds and were drawn from government, non-governmental organizations, the private sector and research institutes.

#### **The workshop's objectives were clear:**

- Build a register of competences and expertise for easy access by site managers.
- Co-define the work modalities of the mentorship pool.
- Co-develop a database of existing resources in the region and globally.

By anchoring skills and competencies to the WIOCOMPAS certification programme, developed by WIOMSA and the University of Rhode Island, the workshop identified that the 17 mentors collectively had approximately 89 skills essential for effective marine conservation management.

The workshop also showcased existing mentorship opportunities such as WIOCOMPAS, the Green List programme, the Conservation Coaches network and the VARUNA tutorship programme. These initiatives provide essential support and training for marine protected area practitioners in the region.

Looking ahead, WIOMPAN outlined a comprehensive plan for its mentorship programme. Key elements include formal agreements between mentors and mentees, mentor-mentee pairing based on expertise and needs, regular communication channels, training opportunities and annual mentor meetings.

Integration with existing initiatives, fundraising efforts, ongoing training for mentors and personal relationship-building were highlighted as critical strategies for success. WIOMPAN also stressed the importance of incentives to encourage mentor participation, such as financial support, recognition and networking opportunities.

Overall, the WIOMPAN Mentorship Programme aims to foster professional development and capacity building for marine protected area managers across the western Indian Ocean. With clear modalities and enabling conditions in place, this initiative holds promise for enhancing marine conservation efforts in the region.

**WATCH THIS SPACE!**  
**Our mentors will soon be showcased on the WIOMPAN website!**



# ANNOUNCEMENTS

## CALL FOR APPLICATIONS:



# Nature-based tourism in the Blue Economy: Immersive Training

13-17 May 2024



**APPLY NOW!**

## Introduction

**WIOMSA, the Ministry of Tourism, Zanzibar and the African Leadership University's School of Wildlife Conservation are offering a regional capacity building workshop/training for practitioners who engage in nature-based tourism in the blue economy in the western Indian ocean (WIO) region.**

Nature-based tourism contributes significantly to sustainable development. It can contribute to poverty reduction, economic growth, biodiversity conservation and critical global accords like the 2030 Agenda for Sustainable Development. Its unique ability to provide blue jobs and growth while protecting wildlife, marine and coastal ecosystems make it an appealing option for WIO countries looking to develop blue economies.

## Aim

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The aim of this regional capacity building workshop/training is to bring together 20 to 25 participants from the WIO region to present, discuss and provide guidance for nature-based tourism in the blue economy.

### **The regional capacity building workshop/training will focus on achieving the following primary objectives:**

- Bring together relevant stakeholders in the WIO to discuss different aspects of nature-based tourism within the blue economy.
- Produce a regional report to raise awareness and increase knowledge on the topic of nature-based tourism in the blue economy.
- Develop a roadmap to unlock nature-based tourism in the blue economy in the WIO, as well as a plan for consistent, comparable data collection on the topic.
- Develop a broader plan for engagement around the blue economy and understanding and communicating its value.

The programme will cover numerous themes, including the coastal tourism business, conservation trends, community engagement and more. It will be interactive and experiential, incorporating a mix of lectures, workshops, field visits and hands-on activities to provide participants with a comprehensive understanding of the subject matter.

## Participants

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Stakeholders working in the WIO, specifically in the area of nature-based tourism from government, community organisations, non-governmental organizations and the private sector.

## Workshop location and dates

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The training programme will be held in Zanzibar from 13 to 17 May 2024 and will take place over four full days, including a field outing.

## Application

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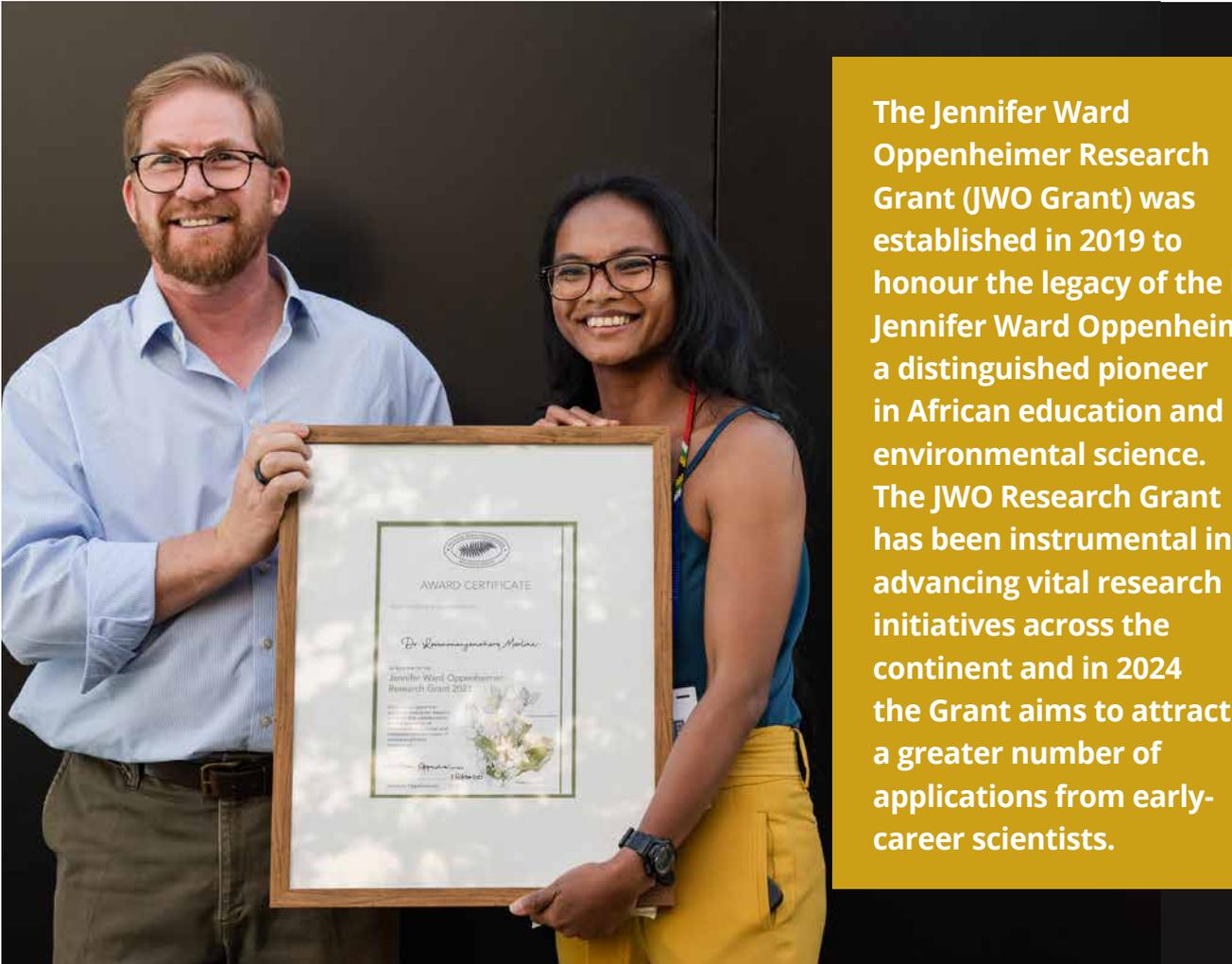
Applications are accepted from nature-based tourism practitioners working in the WIO region.

### **Applicants must fit the following criteria:**

- Must be engaged in/employed in nature-based tourism in the blue economy in the WIO region.
- Should be able to contribute to a regional technical report on nature-based tourism and the blue economy. Shortlisted applicants will be asked to submit abstracts for their contributions.
- Women meeting the above qualifications are strongly encouraged to apply.

**Applications will be received until 10 April 2024 through [this link](#).**

## THE JENNIFER WARD OPPENHEIMER RESEARCH GRANT SEEKS ANOTHER TRAILBLAZING RECIPIENT



The Jennifer Ward Oppenheimer Research Grant (JWO Grant) was established in 2019 to honour the legacy of the late Jennifer Ward Oppenheimer, a distinguished pioneer in African education and environmental science. The JWO Research Grant has been instrumental in advancing vital research initiatives across the continent and in 2024 the Grant aims to attract a greater number of applications from early-career scientists.

Over the past five years, early-career scholars and scientists specializing in various environmental disciplines such as biodiversity, microplastics and disease vectors have eagerly sought this grant to explore innovative research topics aimed at addressing the unique challenges confronting Africa's natural environment.

Cutting-edge research not only sheds light on pressing environmental issues but also actively contributes African perspectives to international discussions on sustainability. Last year, Dr Lovanomenjanahary Marline, a renowned bryologist from Madagascar, exemplified the grant's impact by securing USD150 000 for her ground-breaking research which explores the

potential of bryophytes and lichen in monitoring critical environmental and human health risks such as biodiversity loss, climate change and air pollution.

The JWO Grant has evolved into a significant source of support for researchers and individuals committed to fostering a better, more economically and environmentally sustainable Africa. This programme not only drives positive change but also empowers early-career scientists to address the pressing climate crises of our time. In its sixth year, JWO is calling upon early-career African scientists to apply and put forward their ground-breaking research for a chance to make a lasting impact.

## Grant eligibility

1. The lead applicant should be an **early-career African scientist with strong links to a credible African institution** and proposing to conduct research on the continent.
2. The 2024 JWO Research Grant encourages transdisciplinary research applications that demonstrate a **strong link to biodiversity and conservation**.
3. **The applicant must hold a degree (PhD)** and should have no more than **seven years of work and/or research experience** post-degree (excluding career breaks, including family-related breaks).
4. The institution must have a proven ability to **manage funding** and subscribe to good financial grant practices.
5. The institutional affiliation may be **academic, research, government, NGO, or for-profit organization**.

## Grant award

**The 2024 JWO grant of \$150,000 (USD) will be awarded to one successful applicant.** The grant will support a research programme of up to three years. There will be an annual call for new applications (previously funded research will not be eligible), and the grant recipient will be announced at the Oppenheimer Research Conference on 10 October 2024.



Applications are open from  
2 April 2024 to 3 May 2024.



To apply for the grant,  
please follow this [link](#)

# AN OCEAN ACIDIFICATION PROGRAMME FOR THE WESTERN INDIAN OCEAN

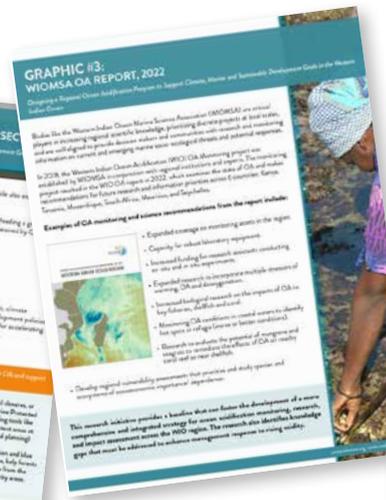
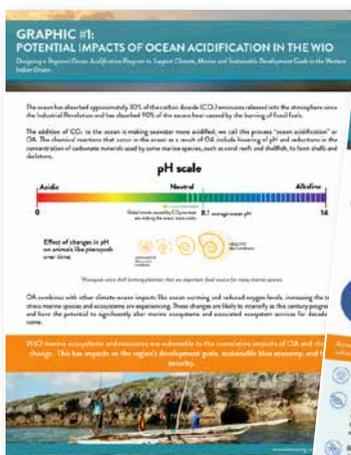
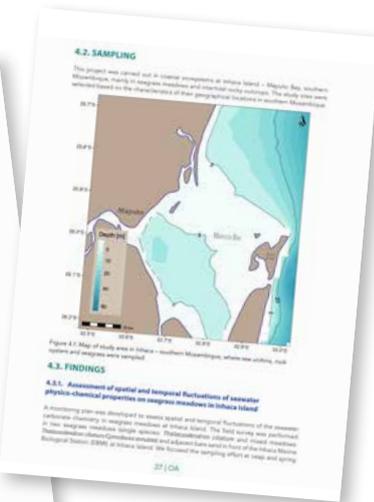
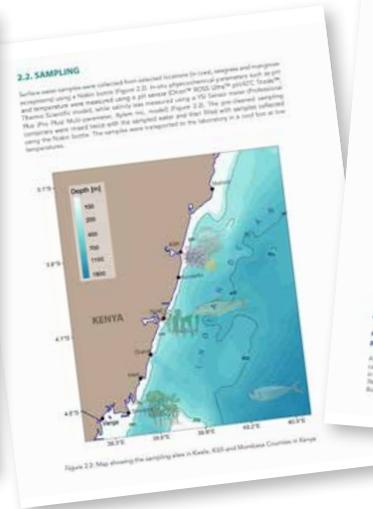
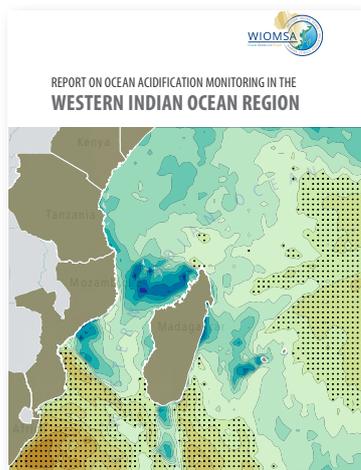
The International Alliance to Combat Ocean Acidification ([OA Alliance](#)) and WIOMSA have been collaborating on a joint policy communications project, **“Mapping OA Monitoring and Research Recommendations to Policy in Africa.”**

The policy communications project flows from the Western Indian Ocean Acidification (WIO) Ocean Acidification Monitoring project established by WIOMSA in conjunction with regional institutions and experts. The monitoring project resulted in the 2022 [WIO OA report](#), which examines the state of ocean acidification and makes recommendations for future research and information priorities across

**six countries: Kenya, Tanzania, Mozambique, South Africa, Mauritius and Seychelles.**

The policy communications project was undertaken to help managers, decision-makers, policy leads and funding entities better understand the linkages between OA science & monitoring to achieving and implementing climate, marine and development priorities across the WIO region and the continent.

Access and share the [first set of graphics](#) titled, **“Designing a Regional Ocean Acidification Program in the WIO.”**



## READ THE LOGBOOK OF THE BLUE SCHOOL



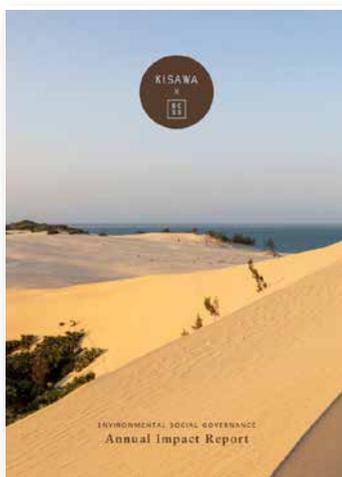
Embark on the Marion Dufresne, an emblematic vessel of the French oceanographic fleet, and discover the logbook of the *École Bleue Outremer* “Cap océan Indien”. The publication is a poetic and collaborative work that retraces an unprecedented adventure, open to discovery, diversity and sharing!

Creatively designed by IFREMER and published in close partnership with the French Directorate General for Overseas Territories **and supported by the French Institute of Research for Development, WIOMSA, the University of La Réunion, the Centre Universitaire de Formation et de Recherche de Mayotte (Mayotte University Training and Research Centre) and maritime and art schools from France and French territories**, the Blue School enabled 75 students and pupils, mainly from the Indian Ocean area, to live and share a unique experience in July 2022.

Download the [log book](#)

## KISAWA SANCTUARY CELEBRATES ITS ACHIEVEMENTS

| By Ekaterina Kalashnikova



The 2023 Impact Report of the Kisawa Sanctuary celebrates a year of profound achievements in sustainability and community engagement. These include the 3D mapping of coral reefs and the establishment of sustainable supply chains. The Sanctuary’s impact also extends to the empowerment of local communities through education, healthcare and cultural enrichment.

The Kisawa Sanctuary is founded on the ethos of purpose-driven hospitality. Central to this concept is the symbiotic relationship between Kisawa and the Bazaruto Centre for Scientific Studies (BCSS), in which marine research intertwines with hospitality to create a unique model of conservation. Through innovative initiatives like the Resort-to-Research (R-2-R) programme, every guest contributes directly to marine science, fostering a new paradigm of nature-positive hospitality. Kisawa’s commitment to transparency is exemplified through openly shared data platforms and strategic partnerships with leading research institutions, driving impactful research in marine science.

Access the report [here](#)