



**BRIDGES Research Program**  
Fisheries and Biodiversity  
in the Western Indian Ocean

**SCIENTIFIC KICK-OFF**  
**SESSIONS SUMMARY**

**25-26 September 2024**  
**Reunion Island**



## **CONTENTS**

<b>SCIENTIFIC PROGRAMS</b>	<b>2</b>
RECOS PROJECT'S SCIENTIFIC COMPONENT	2
ADVANCING INCLUSIVE CONSERVATION IN THE SOUTHWEST INDIAN OCEAN	4
CORDIO'S RESEARCH AND CONSERVATION IN THE WESTERN INDIAN OCEAN	6
<b>NETWORKS AND SYNERGIES</b>	<b>9</b>
GREAT BLUE WALL	9
WESTERN INDIAN OCEAN MARINE SCIENCE ASSOCIATION (WIOMSA)	11
WESTERN INDIAN OCEAN MARINE PROTECTED AREAS PROFESSIONALS NETWORK	13
VARUNA_MPA PROJECT	16
<b>SOUTH-WESTERN INDIAN OCEAN MPA'S SPECIFIC CHALLENGES</b>	<b>19</b>
REUNION ISLAND NATURE MARINE RESERVE	19
MAYOTTE MARINE PARK	21
MOHELI NATIONAL PARK	23
COMOROS PROTECTED MARINE AREAS	26
FRENCH SOUTHERN LANDS – SCATTERED ISLANDS	28
GENERAL DISCUSSION	30
<b>OPORTUNITIES FOR REGIONAL COOPERATION</b>	<b>32</b>
AGENCE FRANÇAISE DE DEVELOPPEMENT GROUP	32
OFB – FRENCH BIODIVERSITY AGENCY	34
GENERAL DISCUSSION	36



# SCIENTIFIC PROGRAMS



## RECOS PROJECT'S SCIENTIFIC COMPONENT

ADELE DE TOMA - INDIAN OCEAN COMMISSION (IOC)

### Context

The RECOS project, implemented by the Indian Ocean Commission (IOC), aims to strengthen the resilience of coastal populations to climate change by restoring marine coastal ecosystem services. The project, which began at the end of 2021 and will run until the end of 2026, is part of an intergovernmental cooperation framework between five member states, namely Comoros, Mauritius, Seychelles, Madagascar and France via Reunion Island. This presentation highlights the scientific and technical components of the project, as well as collaborations with various regional stakeholders.

### Key figures

- **Total project budget:** 10 million euros (8.5 million euros from AFD and 1.5 million euros from FFEM co-financing).
- **Project duration:** 5 years (2021-2026).
- **Number of IOC member states:** 5.
- **Number of pilot projects financed:** 6 (3 in Madagascar, 1 in Seychelles, 1 in Mauritius, 1 in Comoros).
- **Grant amounts for pilot projects:** between 500,000 and 700,000 euros each.
- **Number of additional projects funded:** 7, with smaller grants + 1 experience-sharing program.
- **Number of thematic working groups:** 4, each focusing on specific issues related to coastal ecosystem management.

### Governance and resilience of coastal ecosystems

The RECOS project has two main focuses: regional and national governance of marine coastal ecosystems, and the implementation of concrete actions in the field.

- The first focus aims to strengthen governance by supporting member states in the implementation of regional conventions, in particular the Nairobi Convention and its Protocol on Integrated Coastal Zone Management (ICZM). A regional protocol was validated last year, with signatory countries in the process of ratifying it.



- The second axis focuses on pilot projects aimed at restoring marine coastal ecosystem services, with particular emphasis on the resilience of coastal populations.

### Pilot projects and concrete actions

- The six pilot projects financed by RECOS are distributed as follows: 3 in Madagascar, 1 in the Seychelles, 1 in Mauritius, and 1 in the Comoros.
- In Madagascar, the projects include initiatives to sustainably manage small-scale fisheries and strengthen marine protected areas (MPAs) in collaboration with local NGOs such as Blue Ventures and WCS.
- Projects also aim to promote sustainable management practices for mangroves and seagrass beds, with an emphasis on environmental education.
- In addition to the pilot projects, a call for projects has been launched to fund 7 further initiatives, including 4 in Madagascar, 2 in the Comoros and 1 in Mauritius.

### Scientific and technical component

- The scientific and technical component of the RECOS project provides scientific support for field activities and contributes to knowledge management and assessment of coastal socio-ecosystem activities. It is essential for establishing a framework for scientific consultation and exchange between IOC member states.
- A scientific committee has been set up, made up of national referents and regional experts, to guide the work of the four thematic groups.
- The working groups' missions include knowledge sharing, providing expertise on pilot sites, producing capitalization materials, and identifying research programs.
- The project is also funding master's internships, 1 post-doc and 2 doctoral theses to build local capacity and produce reliable data on coastal ecosystems.

### Challenges and prospects

- One of the major challenges identified is the need to decompartmentalize research themes to better integrate social, environmental and economic aspects.
- Members of the scientific committee stressed the importance of linking research programs to priority issues in the field, favouring applied research that meets the needs of decision-makers.
- At the end of the RECOS project, advocacy will be built on the results obtained, particularly with regard to the effectiveness of MPA management.
- Continuity of action and scientific collaboration is envisaged, even after the end of the project, to ensure capitalization of results and scaling-up of identified best practices.



In conclusion, the RECOS project represents an ambitious and collaborative initiative aimed at strengthening the resilience of coastal ecosystems in the Indian Ocean region. Through an integrated approach combining governance, concrete actions and scientific research, the project aims to create sustainable impacts for coastal populations and promote responsible management of marine resources.

## ADVANCING INCLUSIVE CONSERVATION IN THE SOUTHWEST INDIAN OCEAN

SHAUNA MAHAJAN - WWF

### Context

The Western Indian Ocean (WIO) region is facing significant environmental and socio-economic challenges, including climate change, overfishing, and political instability. In response, the World Wildlife Fund (WWF) has developed a comprehensive strategy to foster sustainability through community engagement, integrated ocean governance, and the promotion of a sustainable blue economy.

### Key figures

- WWF operates in five national offices: Kenya, Tanzania, Madagascar, Mozambique, and South Africa + partner-driven work in Seychelles, Comoros and Mauritius.
- Collaborates with over 300 coastal communities and various stakeholders, including governments and the private sector.
- Focuses on four main pillars: community engagement, integrated ocean governance, regional fisheries, and sustainable blue economy.
- Approximately 70% of WWF's work in the region is dedicated to coastal community engagement.
- The organization has developed a platform called Eleanor to standardize data collection on environmental governance across 53 sites in the SWIO.

### Community Engagement and Capacity Building

- WWF emphasizes the importance of securing community rights to govern and manage local resources, which is a critical aspect of their conservation strategy.
- Capacity development initiatives include training programs focused on monitoring and enforcement of fisheries management laws, particularly in Tanzania, where beach management units and collaborative fisheries management areas have been established.
- The organization has developed octopus fishery closure guidelines to enhance sustainable practices.



- WWF recognizes the need for ongoing evaluation of capacity-building impacts, currently relying on quantitative indicators such as the number of individuals trained and the ecological effectiveness of management regimes.
- A partnership with Duke University aims to conduct in-depth research on community perceptions of capacity-building efforts, providing qualitative insights to complement existing quantitative data.

### Integrated Ocean Governance

- WWF is actively working on operationalizing sustainable marine spatial planning frameworks, particularly in the northern Mozambique Channel.
- The organization aims to formally recognize community-managed areas as Other Effective Area-Based Conservation Measures (OECMs), which is crucial for enhancing biodiversity conservation.
- Efforts to expand Marine Protected Area (MPA) networks are underway to ensure ecological representation and connectivity, with a strong focus on locally managed marine areas (LMMAs).
- WWF promotes sustainable practices in ocean economic sectors to protect the natural value of the region, recognizing the interdependence of ecological health and community livelihoods.

### Regional Fisheries Management

- WWF's fisheries work focuses on strengthening national governance frameworks and operationalizing key global agreements to combat illegal, unreported, and unregulated (IUU) fishing.
- The organization emphasizes the role of civil society in advocating for better fisheries management and governance.
- Capacity-building initiatives for governments in the region aim to enhance their ability to implement effective fisheries policies and engage with local communities.
- WWF uses yellowfin tuna as a flagship species to address broader regional fisheries challenges, adopting a holistic approach that considers ecological and socio-economic factors.

### Sustainable Blue Economy

- WWF is committed to fostering a sustainable and inclusive blue economy, which encompasses the development of local businesses and enterprises that prioritize environmental sustainability.
- The organization collaborates with financial institutions to promote environmental, social, and governance (ESG) practices, aiming for a trickle-down effect that benefits ecosystems and communities.
- National Blue Economy plans are being developed across the region to integrate sustainability into economic development strategies.
- WWF's initiatives include incubating small-scale, resilient enterprises that contribute to local wealth and food security.



## Monitoring, Evaluation, and Learning (MEL)

- WWF's MEL strategy goes beyond traditional accountability measures, focusing on learning and adapting practices based on insights from research and community feedback.
- The organization aims to streamline data collection processes across its national and regional programs to better inform decision-making and policy development.
- Peer-to-peer learning events have been facilitated to enhance collaboration and knowledge sharing among partners and stakeholders.
- The Eleanor platform has been developed to standardize data collection on environmental governance, allowing for more effective adaptive management and collaboration among NGOs and researchers.

## Conclusion

The WWF's comprehensive approach to fostering sustainability in the Western Indian Ocean highlights the importance of community engagement, integrated governance, and the promotion of a sustainable blue economy. By leveraging partnerships and focusing on capacity building, WWF aims to address the pressing challenges facing the region while enhancing the resilience of coastal communities. The ongoing collaboration with various stakeholders, including academic institutions and civil society organizations, will be crucial in achieving shared goals and ensuring the long-term health of the marine environment.

## CORDIO'S RESEARCH AND CONSERVATION IN THE WESTERN INDIAN OCEAN

JOSHUA RAMBAHINIARISON – CORDIO

### Context

This presentation highlights the CORDIO's extensive work in marine conservation across the Western Indian Ocean, particularly focusing on coral reefs, fisheries, and apex predators like sharks and rays. The discussion emphasized the importance of collaboration with local communities, NGOs, and academic institutions to ensure sustainable management of marine resources. The conversation also touched on the integration of scientific research into policy-making to enhance conservation efforts.

### Key figures

- **Organization:** Cordio (NGO)



- **Location:** Based in Mombasa, Kenya, with operations in Mozambique, Tanzania, Madagascar, and Comoros.
- **Established:** Late 1990s, following the first massive coral bleaching event.
- **Key Projects:** Global Coral Reef Monitoring Network (GCRMN) for the Western Indian Ocean, National Coral Reef Assessments (NCRA).
- **Research Focus:** Coral reefs, small-scale fisheries, shark and ray populations.
- **Community Engagement:** Participatory research with local fishers, leading to changes in fishing practices.
- **Data Platforms:** MASPAWIO (Marine Spatial Atlas for the WIO - open access data repository), Coral Bleaching Monitoring Portal.

### Coral Reef Monitoring and Conservation

- Cordio has been actively involved in coral reef monitoring since its inception, particularly after the significant coral bleaching event in the late 1990s.
- The organization coordinates the GCRMN for the Western Indian Ocean, engaging with various partners across the region to monitor coral health and biodiversity.
- In 2019, Cordio led a red listing of ecosystems for coral reefs, assessing vulnerability across different regions. The results indicated that many coral reefs are critically endangered, endangered, or vulnerable.
- The data collected feeds into national assessments (NCRA) to inform policy and management recommendations.

### Small-Scale Fisheries and Community Engagement

- Cordio conducts research on small-scale fisheries, recognizing their vital role in providing food for coastal communities while also exerting pressure on coral reefs.
- A notable participatory research project involved basket trap fishers in Kenya, where 16 fishers trialed increasing the mesh size of their traps. This led to:
  - An increase in the mean weight of fish caught.
  - A rise in the monetary value of the catch.
  - A reduction in the number of species caught, focusing on target species.
- The success of this trial prompted the entire fishing community to adopt the new practices, demonstrating the effectiveness of involving local stakeholders in research and conservation efforts.

### Shark and Ray Conservation

- Cordio has identified a growing interest in the conservation of sharks and rays, which are crucial apex predators in marine ecosystems.
- The organization participated in a global assessment of reef shark populations, revealing that many species are depleted in the region.
- Research indicated that local fisheries primarily catch juvenile and threatened shark species, highlighting unsustainable fishing practices.





- Cordio is coordinating a shark conservation strategy in Kenya and Comoros, aiming to establish important shark and ray areas (ISRA) to protect critical habitats.
- The organization collaborates with the IUCN Shark Specialist Group to map these habitats, contributing to broader marine spatial planning efforts.

### Data Sharing and Science to Policy

- Cordio emphasizes the importance of data sharing and transparency in marine conservation efforts.
- The organization manages several data platforms, including MASPAWIO, which serves as an open-access repository for marine data, allowing scientists and policymakers to access and utilize the information.
- Cordio's commitment to turning scientific research into actionable policy is evident in its collaborations with local governments and beach management units (BMUs) in Kenya.
- The organization uses platforms like SeaSketch to assist local authorities in marine spatial planning, ensuring that data is readily available for informed decision-making.

### Collaboration with Academic Institutions

- Cordio actively collaborates with universities in the regions where it operates, bridging the gap between academic research and practical conservation efforts.
- Partnerships with local universities, such as the University of Comoros and Pwani University in Kenya, facilitate the integration of local knowledge and research into conservation strategies.
- This collaboration ensures that research questions are relevant to local contexts and that findings are effectively communicated to stakeholders.

In conclusion, Cordio's multifaceted approach to marine conservation in the Western Indian Ocean showcases the importance of collaboration, community engagement, and data-driven decision-making. By integrating scientific research with local practices and policies, Cordio aims to foster sustainable management of marine ecosystems, ensuring their health and resilience for future generations.



# NETWORKS AND SYNERGIES

## GREAT BLUE WALL

THOMAS SBERNA - IUCN



### Context

The Great Blue Wall Initiative, aims to address the interconnected crises of climate change, biodiversity loss, and economic development in the Eastern and Southern Africa region. This initiative is spearheaded by the International Union for Conservation of Nature (IUCN) and seeks to establish a network of regenerative seascapes that prioritize local governance, ecosystem restoration, and sustainable economic activities. The presentation highlights the urgency of action required to meet global conservation targets, particularly the ambitious 30 by 30 goal, which aims to protect 30% of the ocean by 2030.

### Key figures

- **30% Ocean Protection Goal:** Aims to increase the current protection of oceans from 8% to 30% by 2030.
- **2 million Square Kilometers:** Target area for conservation in the Western Indian Ocean region by 2030.
- **2 million Hectares:** Area of critical ecosystems that need protection and restoration by 2030.
- **2 million Blue Jobs:** Estimated number of jobs to be created and supported by 2030 through sustainable blue economic activities.
- **\$100 Million:** Financial contributions mobilized for the initiative, secured through declarations at ministerial levels.

### The Need for Integrated Approaches

- The initiative emphasizes the necessity of addressing climate change, biodiversity, and economic development simultaneously. This integrated approach is crucial, especially in the African context, where these issues are deeply interconnected.
- The Great Blue Wall Initiative is designed to be a holistic response to the three crises, ensuring that actions taken in one area do not negatively impact another. For instance, promoting blue economic activities must not lead to the degradation of natural ecosystems.

### The Three Pillars of the Initiative

- **Blue People:** This pillar focuses on empowering local communities to lead conservation efforts. It involves:
  - Establishing inclusive governance structures that prioritize local rights and participation.
  - Aligning with the 30 by 30 agenda to ensure local stakeholders are actively involved in achieving conservation targets.



- Creating a network of over 40 Locally Managed Marine Areas (LMMAs) to enhance community-led conservation.
- **Blue Nature:** This pillar is dedicated to the restoration and protection of critical marine ecosystems. Key points include:
  - Identifying and safeguarding essential habitats, akin to protecting vital organs in a human body.
  - Fostering resilience against climate change impacts through ecosystem restoration efforts.
- **Blue Economy:** This pillar aims to catalyze sustainable economic activities that support both livelihoods and conservation. It includes:
  - Developing mechanisms for a regenerative blue economy that enhances natural capital rather than depleting it.
  - Engaging with local communities as entrepreneurs to foster blue ventures that align with conservation goals.

### The Role of Partnerships

- Partnerships are central to the success of the Great Blue Wall. The IUCN acts as a facilitator, bringing together various stakeholders, including governments, NGOs, and local communities.
- The initiative seeks to create a coalition of willing partners, recognizing that collaboration is essential for achieving scale and speed in conservation efforts.
- The involvement of financial institutions, particularly through the Economic Commission for Africa, ensures that funding is directed towards effective conservation actions.

### Scientific Collaboration and Research

- The initiative recognizes the importance of science-based approaches to conservation. It aims to integrate research into action-oriented projects, ensuring that decisions are informed by the best available data.
- The potential collaboration with programs like BRIDGES is seen as a significant opportunity to enhance the scientific rigor of the initiative. BRIDGES can provide methodologies, resources, and expertise to support the implementation of conservation strategies.
- The IUCN has access to a vast network of 18,000 expert scientists, which can be leveraged to strengthen the scientific foundation of the Great Blue Wall.

### Challenges and Future Directions

- One of the main challenges highlighted is the low appetite for creating new Marine Protected Areas (MPAs) in the region. The presentation noted that there has been virtually no new MPAs established in the past five years, indicating a need for innovative approaches to conservation.
- The initiative aims to explore alternative designations, such as Other Effective Area-Based Conservation Measures (OECMs), which may be more acceptable to stakeholders.
- Moving forward, the establishment of a scientific advisory board is suggested to enhance collaboration with researchers and ensure that



scientific insights are systematically integrated into the initiative's strategies.

In conclusion, the Great Blue Wall represents a comprehensive effort to tackle pressing environmental challenges in the Eastern and Southern Africa region. By focusing on integrated approaches, empowering local communities, fostering partnerships, and leveraging scientific research, the initiative aims to create a sustainable future for marine ecosystems and the communities that depend on them.

## WESTERN INDIAN OCEAN MARINE SCIENCE ASSOCIATION (WIOMSA)

ARTHUR TUDA – WIOMSA

### Context

This presentation focuses on the role of marine science in supporting sustainable management of marine protected areas (MPAs) in the Western Indian Ocean region, emphasizing the importance of building networks among scientists and stakeholders to enhance the uptake of scientific knowledge in policy-making. The discussions highlighted the need for increased collaboration between natural and social scientists to address the multifaceted challenges facing marine ecosystems.

### Key figures

- **WIOMSA Established:** 1993
- **Number of Countries Operated:** 10
- **Publications from MASMA Program (Marine Science for Management):** Over 800 peer-reviewed publications
- **Percentage of Early Career Scientists at Last Symposium:** 60% of 900 attendees
- **Marine Protected Areas (MPAs) in the Region:** 143 covering over 500,000 square kilometers
- **Percentage of Well-Managed MPAs:** 63%
- **Target for New Marine Protected Areas:** About 2 million square kilometers

### The Role of Networks in Marine Science

- **Importance of Collaboration:** Arthur Tuda stressed that effective networks are crucial for sharing knowledge and resources among scientists, policymakers, and resource users. The growth of communication and collaboration among scientists has been significant since WIOMSA's inception.
- **Evidence Bridges Concept:** A proposal was made to create "Evidence Bridges," which would serve as intermediaries between scientists and resource users. These individuals would gather information on the needs



of policymakers and managers and relay it back to scientists, facilitating a more effective transfer of knowledge.

- **Current Gaps:** Despite the increase in scientific output, there remains a disconnect between the production of scientific knowledge and its application in policy. This gap highlights the need for better communication strategies and the involvement of social scientists in marine governance.

### Capacity Building for Early Career Scientists

- **Focus on Young Scientists:** The discussion highlighted the importance of supporting early career researchers, who represent a significant portion of the scientific community. Funding initiatives like the Marine Research Grant specifically target this demographic to accelerate knowledge production.
- **Funding Opportunities:** WIOMSA plans to issue new grants aimed at early career scientists, particularly in areas like seagrass research. This initiative aims to harness the energy and innovative approaches of younger scientists to address pressing research questions.
- **Symposium Participation:** The last WIOMSA symposium had a notable turnout of early career scientists, indicating a vibrant and engaged community eager to contribute to marine science.

### Addressing Scientific Gaps in Marine Research

- **Disparity in Research Focus:** A review of research outputs revealed a significant focus on fisheries science compared to other critical areas such as climate change, coastal city issues, and seaweed farming. This imbalance suggests a need for diversified research funding and support.
- **Call for Broader Research:** The discussions underscored the necessity of addressing knowledge gaps in marine science, particularly in areas that are vital for the blue economy. Topics like aquaculture and coastal management require more scientific attention to support sustainable practices.
- **Partnerships for Research:** WIOMSA is actively seeking partnerships to fund research initiatives that fill these gaps, emphasizing the importance of collaborative efforts in advancing marine science.

### Funding and Sustainability of WIOMSA

- **Diverse Funding Sources:** WIOMSA's funding model includes contributions from various partners, including governmental and non-governmental organizations. Historically, funding from the Swedish government played a significant role, but partnerships with organizations like IUCN are now crucial for ongoing research support.
- **Role as a Connector:** WIOMSA positions itself as a coordinating institution that connects researchers, institutions, and funding bodies to facilitate collaborative projects and enhance the impact of marine science in the region.
- **Future Funding Initiatives:** The association is exploring innovative funding mechanisms to support both research and effective management



of marine resources, ensuring that scientific findings are translated into actionable policies.

### Integrating Social Sciences into Marine Research

- **Historical Bias Towards Natural Sciences:** The conversation revealed a historical focus on natural sciences within marine research, with fewer social scientists participating in marine governance discussions. This trend is changing as more interdisciplinary approaches are adopted.
- **Emerging Interest in Social Sciences:** There is a growing recognition of the importance of social sciences in understanding marine resource management. The integration of social science perspectives is seen as essential for addressing the complexities of marine conservation.
- **Need for Economic and Business Science:** Participants emphasized the necessity of incorporating economic and business sciences into marine conservation strategies. This integration is vital for making conservation efforts financially viable and ensuring long-term sustainability.

In conclusion, the discussions highlighted the critical need for enhanced collaboration among scientists, policymakers, and resource users in the Western Indian Ocean region. By addressing gaps in research, supporting early career scientists, and integrating social and economic sciences, the region can better navigate the challenges of marine conservation and management.

## WESTERN INDIAN OCEAN MARINE PROTECTED AREAS PROFESSIONALS NETWORK

KARINE POTHIN – WIOMPAN

### Setting the scene

The presentation outlines the challenges and objectives of the WIOMPAN network, while stressing the importance of regional collaboration to achieve marine protection goals by 2030.

### Key figures

- **63%:** Percentage of marine protected areas in the Indian Ocean that are effectively managed.
- **30%:** Target for ocean protection by 2030.
- **143:** Number of recognized marine protected areas in the region.
- **300:** Estimated total number of marine protected areas managed locally by communities.
- **40:** Number of training courses and certifications carried out since 2000.



- **124**: Number of professionals certified through the WIOCOMPAS process.
- **380**: Number of members in the WIOMPAN network.
- **2500**: Number of stakeholders involved in the network.

### The importance of a regional network of marine protected areas

- Karine Pothin emphasized the need for a regional network to address common challenges faced by Indian Ocean countries, such as pollution, overexploitation of resources, and climate change.
- The network aims to improve MPA management by promoting collaboration between managers, which is crucial given that only 63% of MPAs are managed effectively.
- The management of marine ecosystems cannot be confined to national borders, as many species migrate across them, making regional cooperation essential.

### WIOMPAN network objectives and activities

- The WIOMPAN network aims to connect MPA managers in order to improve their skills and efficiency in the day-to-day management of marine areas.
- Karine Pothin mentioned that the network has organized over 40 training courses and certifications, helping to increase managers' skills, as well as mentorship programs, exchanges programs and collaborative workshops where each country's needs and expertise can be shared with the rest of the network.
- The WIOCOMPAS certification process was highlighted as a means of validating the skills of professionals working in MPAs, with an emphasis on providing concrete evidence of their competencies.
- Members of WIOMPAN can also access resources such as toolkits, which will briefly be available in French thanks to a collaboration with RECOS and Varuna projects.

### Collaboration with the scientific community

- Although WIOMPAN is primarily a network of managers, Karine Pothin stressed the importance of interaction with the scientific community to meet managers' knowledge needs.
- The training courses organised by WIOMPAN are based on scientific studies.
- The WIOMPAN country chapters develop action plans and priorities in collaboration with the scientific sphere in their country.
- WIOMPAN has strong links with WIOMSA and its intern networks such as mangroves network and seagrass network. Managers can express their needs in terms of scientific knowledge, which will orientate WIOMSA's future research programs and studies. It was also mentioned that the network is inspired by other global networks, such as MedPan in the



Mediterranean, but has chosen not to establish a separate scientific council, as WIOMSA already fulfils this role.

### WIOCOMPAS certification

- WIOCOMPAS certification is a process that assesses the skills of professionals in MPAs at different levels: Rangers (level 1), managers (level 2), and strategic (level 3).
- Candidates must provide concrete evidence of their skills, making the process rigorous and relevant to the field.
- This certification is internationally recognized and can help professionals advance their careers, opening up employment opportunities in other countries.

### Future prospects and challenges

- Karine spoke of the challenges ahead, including the need to increase human and financial resources to reach the target of 30% of oceans protected by 2030.
- The WIOMPAN network will continue to work on training, mentoring and exchange programs to build the capacity of MPA managers.
- Language is a challenge in the WIO region, with French-speaking and English-speaking managers. This year, WIOMSA and Varuna implemented a WIOCOMPAS training in French, which allowed participants from Madagascar and Comoros.
- Collaboration with other initiatives, such as RECOS and Varuna, is essential to develop effective strategies and meet the specific needs of countries in the region.

In conclusion, Karine Pothin's presentation highlighted the crucial importance of regional cooperation in the management of marine protected areas, as well as the efforts made by the WIOMPAN network to strengthen managers' skills and improve the health of marine ecosystems in the southwest Indian Ocean. WIOMPAN is opened to more collaborations, including with BRIDGES, to bring more capacity and feedback to the network.





## VARUNA\_MPA PROJECT

SEVAHNEE PYNEEANDY – RESERVES NATURELLES DE FRANCE

### Context

The presentation of the Varuna\_MPA project, part of the Varuna program aiming to reduce biodiversity erosion in the region's island territories, focuses on strengthening MPA managers capacities at a regional scale. The discussion highlighted the linguistic and communication challenges encountered in implementing regional programs, as well as the importance of collaboration between networks.

### Key figures

- **Total budget for Varuna program:** 10 million euros (funded by Agence Française de Développement Group)
- **Specific budget for Varuna\_MPA project:** 800,000 euros
- **Program duration:** 4 years (2022-2025)
- **Territories involved:** Madagascar, Comoros, Mauritius (including Rodrigue Island), French overseas (Réunion, Mayotte, TAAF), Seychelles
- **Number of participants in the first WIOCOMPAS certification:** 15 candidates

### Objectives and structure of the Varuna program

- The main aim of the Varuna program is to reduce biodiversity loss in the South-West Indian Ocean region, focusing on island territories.
- It is structured around three main axes:
  - **Structuring regional networks:** Strengthening collaboration between marine area managers.
  - **Integrating the ecological transition into the private sector:** Raising awareness and training private-sector stakeholders in conservation.
  - **Promoting dialogue between science and civil society:** Facilitating communication and information exchange between researchers and the general public.

### Objectives and structure of the Varuna\_MPA project

- Varuna\_MPA project aims to support the structuring of the marine area practitioners' network in the SWIO, focusing on island territories.



- The program is implemented by the Réserves Naturelles de France (RNF) in collaboration with the French Biodiversity Agency (OFB).

### Actions and initiatives

- **Training and technical exchanges:** The program offers training tailored to the needs expressed by marine area managers, based on co-construction workshops.
- **Micro-projects:** Annual funding is allocated to micro-projects to enable managers to purchase equipment or experiment with new practices in the field.
- **Peer exchanges:** Initiatives have been set up to encourage exchanges between marine area managers, such as meetings between Mauritius and Madagascar to strengthen community governance.
- **Synergies with other initiatives:** The Varuna\_MPA project collaborates with other projects such as WIOMPAN and RECOS to avoid duplication and pool efforts. The project also supports the integration of the managers into different existing networks. Many synergies with BRIDGES were described, such as sharing results, needs and practices of each MPA, divulging the BRIDGES results into the network.
- The roadmap design for capacity-sharing was done based on a consultation of managers from the 8 territories.

### Language and communication challenges

- The issue of language was raised during the discussion, highlighting the linguistic diversity in the region. Managers often speak several languages, but the language barrier remains an obstacle to participation.
- Congresses and workshops organized by networks such as WIOMPAN often include translations, but this depends on the resources available.
- WIOMSA underlined that it is essential to develop resources in several languages (French, English, Creole, Portuguese, Kiswahili) to ensure maximum participation by local players.
- The need to train evaluators and trainers in different languages was highlighted, in order to strengthen local capacity and ensure better dissemination of knowledge.

### Prospects and sustainability of the program

- The sustainability of actions undertaken as part of the Varuna\_MPA project is a major concern, especially with funding set to end in 2025.



- Managers have expressed a wide range of needs, including marine spatial planning, artisanal and small-scale fisheries, climate change adaptation and governance.
- The creation of a solid, interconnected network between the various conservation players is essential to ensure the continuity of efforts after the end of the program.
- Future collaborations with initiatives such as Bridges and other regional players are envisaged to maintain the momentum and synergies created during the project.

In conclusion, the presentation of the Varuna\_MPA project highlighted the importance of regional cooperation for biodiversity conservation in the south-west Indian Ocean. Linguistic challenges and the need for an inclusive approach were key points of discussion, as was the search for sustainable solutions to perpetuate the actions undertaken.



# SOUTH-WESTERN INDIAN OCEAN MPA'S SPECIFIC CHALLENGES



## REUNION ISLAND NATURE MARINE RESERVE

TEVAMINE RUNGASSAMY AND ANNE-LAURE CLEMENT – REUNION ISLAND  
NATURE MARINE RESERVE

### Setting the scene

The Reunion Island Nature Marine Reserve, created in 2007, stretches along 45 km of coastline and covers an area of 35 km<sup>2</sup>. It is home to 80% of the island's coral reefs and faces major environmental challenges, including demographic pressure, urbanization and the impacts of climate change. This report summarizes the discussions held at the Bridges kick-off, highlighting the specific issues facing the reserve and the management strategies envisaged.

### Key figures

- **Reserve area:** 35 km<sup>2</sup>
- **Length of coastline:** 45 km
- **Biodiversity:**
  - 400 species of cnidarians
  - 800 species of fish
  - 1300 species of molluscs
  - 180 species of algae, sea turtles and marine animals
  - 130 species of echinoderms
  - 200 species of crustaceans
- **Protected areas:**
  - 6% of the reserve in an integral protection zone
  - 2 additional levels of protection with specific regulations

### Environmental pressures on the reserve

- **Urbanization and demographic development:** Since the 1950s, Réunion Island has undergone strong urbanization, leading to an increase in seaside activities and conflicts of use. A significant change in the coastline was undergone, with a narrowing of the beaches.
- **Coastal erosion:** The Reserve is subject to significant erosion, exacerbated by climatic events such as cyclones. Mudflows, such as those



caused by cyclone Fakir, have had devastating consequences on coral reefs, leading to massive coral mortality.

- **Pollution and terrigenous inputs:** Human activities in the watershed contribute to the pollution of the lagoons, with domestic and agricultural waste asphyxiating the corals. Reserve managers stress the need to collaborate with land management entities to mitigate these impacts.

## Reserve management objectives

- **Preservation and restoration of coral reefs:** The main objective is to ensure the health of reef ecosystems, which are essential for biodiversity and ecosystem services. Managers estimate that it takes around ten years for coral reefs to regenerate after being degraded, provided that the pressures are removed.
- **Protecting fishery resources:** The reserve aims to protect coral habitats and ensure the sustainability of fishing activities, both professional, traditional and recreational. Fishing is a crucial activity for the local economy, and specific regulations are in place to oversee this practice.
- **Sustainable development of ecosystem services:** Coral reefs play a key role in protecting coastlines against erosion, and support economic activities linked to fishing and tourism. Managers seek to maximize these benefits while preserving the reserve's ecological integrity.

## Collaboration and governance

- **Reserve governance:** The Reserve is governed by a board comprising the Prefect of La Réunion and regional representatives. A GIP (Groupement d'Intérêt Public) brings together various stakeholders, including scientific and advisory boards, to guide the management of the reserve.
- **Partnerships with other entities:** Reserve managers collaborate with organizations such as IFREMER and the regional fisheries committee to implement appropriate management measures. They stress the importance of working with stakeholders in the watershed to reduce impacts on the reefs.
- **Current and future projects:** Several projects are underway to monitor fishing practices and assess their impact on ecosystems. Managers express the need to bring together existing data and protocols to improve management and decision-making.

## Challenges and future prospects

- **Expanding the Reserve:** Although there are discussions at the island's scale about protecting 100% of the coral reefs, managers have no



intention of expanding the current Reserve. Consideration is being given to identifying new areas for protection, but this will depend on political decisions and socio-cultural contexts.

- **Integration of human activities:** Managers recognize the importance of integrating human activities into reserve management. They seek to raise awareness and collaborate with local stakeholders to ensure effective co-management of marine resources.
- **New management indicators and tools:** Managers express the need to develop new indicators to assess the state of ecosystems, and to bring together existing methods and protocols to facilitate access to information and improve decision-making.

In conclusion, the Reunion Island Nature Marine Reserve faces complex challenges linked to human pressure and environmental change. Integrated and collaborative management, as well as increased awareness among local stakeholders, will be essential to preserve this vital ecosystem for future generations.

## MAYOTTE MARINE PARK

CÉLINE MAURER – FRENCH BIODIVERSITY AGENCY

### Setting the scene

The Mayotte Marine Park, created in 2010, is a marine protected area that aims to preserve natural and cultural heritage while enabling sustainable activities, notably fishing. The Park covers a vast area of 69,000 km<sup>2</sup>, including unique marine ecosystems such as reef barriers and mangroves. The management of this entity is complex, involving various stakeholders and requiring a collaborative approach to address environmental pressures and socio-economic issues.

### Key figures

- **Park area:** 69,000 km<sup>2</sup>, including a double reef barrier and a lagoon extended on 1,500km<sup>2</sup>
- **Percentage of coastline covered by mangrove swamps:** 30%.
- **Hectares of seagrass beds:** 700
- **Fish species counted:** 900
- **Marine mammals present:** 24
- **Fishing on foot trips per year:** 37,000, representing 100 tons of octopus
- **Number of pirogues (non-professional):** 700 to 800
- **Number of registered motorboats (recreational):** 1,000
- **Number of professional fishing boats:** 350



## Ecosystems and biodiversity

- The Park is home to a rich biodiversity, with around 900 species of fish and 24 species of marine mammals. Among these species, the dugong and bottlenose dolphin have isolated and vulnerable populations, underscoring the importance of protecting them.
- Mangroves, which cover around 30% of the coastline, play a crucial role in coastal protection and marine biodiversity. However, they are under heavy pressure from urbanization and resource exploitation.
- The discovery of an underwater volcano in 2018 has added a new dimension to scientific research in the region, sparking increased interest in marine habitat conservation.

## Fishing activities

- Fishing is an essential activity for local communities, with around 37,000 fishing trips on foot per year, representing 100 tons of octopus collected. This activity is mainly subsistence, but also faces sustainability challenges.
- The professional fishing fleet comprises around 350 motorized boats, as well as longliners. The presence of European and Seychelles fishing vessels in Mayotte waters, mainly for tuna, raises questions about the management of shared resources.
- Anchored and drifting FADs (fish aggregating devices) pose management problems, particularly in terms of their impact on marine ecosystems and traditional fishing.

## Management and governance

- The Park operates with a management committee of around 40 people, including representatives of civil society, fishing professionals and associations. This committee is responsible for drawing up the management plan and assessing the impact of activities on marine resources.
- Governance is essential to ensure effective management of marine resources. The Park has set up sub-working groups to address specific issues, including fishing regulations and habitat preservation.
- Management objectives include reducing fishing pressure in the lagoon and promoting sustainable fishing practices, while taking into account the needs of local communities.

## Environmental pressures



- The Park faces a number of environmental pressures, including pollution, poaching and the impacts of climate change. Rapid urbanization and migratory flows are increasing pressure on local infrastructure and ecosystems.
- Water quality in the lagoon is a major problem, exacerbated by deforestation and erosion, leading to sediment transport that is harmful to marine life.
- Climate change, although not directly attributable to Mayotte, is also affecting marine ecosystems, requiring a proactive approach to anticipate and mitigate these impacts.

### Future prospects

- Discussions around fisheries management and the preservation of marine resources are crucial to the future of the park. The need to redirect fishing towards sustainable areas outside the lagoon is a priority.
- Involving local communities in park governance is essential to ensure that proposed solutions are accepted and implemented effectively. Training and access to the sea must be provided to facilitate this transition.
- Ongoing research into endangered species and marine ecosystems is needed to better understand the impacts of human activities and climate change, so that management strategies can be adapted accordingly.

In conclusion, the Mayotte Marine Park represents a model of marine resource management that requires close collaboration between managers, scientists and local communities. The challenges are many, but with an integrated and sustainable approach, it is possible to preserve this natural heritage while supporting local economic activities.

## MOHELI NATIONAL PARK

CHEKIDINE SAID – MOHELI NATIONAL PARK

### Setting the scene

The Moheli National Park, classified as a biosphere reserve by UNESCO in 2020, is an example of co-management between local authorities and communities, aiming to protect biodiversity while supporting community initiatives.

### Key figures





- Total area of Moheli National Park: 644 km<sup>2</sup> (172 km<sup>2</sup> terrestrial and 472 km<sup>2</sup> marine).
- Number of marine species recorded: 600 coral reef species.
- Estimated sea turtle population: 3,500 individuals, and about 10 dugongs
- Number of villages involved in co-management: 19 out of 23.
- Number of fishermen's associations: 11.
- Timeframe for obtaining UNESCO classification: 19 years (2001-2020).

### Status and history of Moheli National Park

- Moheli National Park was created in 2001 by presidential decree, initially as a marshland park, focusing on the protection of marine and coastal resources.
- In 2015, an extension to the terrestrial part was completed, transforming the park into both a marine and terrestrial protected area.
- The Park is classified as IUCN category 6, which means it is dedicated to the sustainable use of resources for the benefit of local populations.

### Park objectives and vision

- The two main objectives of the Park are biodiversity conservation and support for community initiatives.
- In 2020, the island of Moheli was classified as a biosphere reserve by UNESCO, marking international recognition of its ecological importance. This has been achieved through collaborative efforts with local communities.

### Environmental and social features

- The Park is home to a diversity of marine and terrestrial ecosystems, with around 4,000 hectares of coral reefs and 80 hectares of mangroves, representing 50% of the national mangrove area.
- The local population, who live mainly from fishing, farming and animal husbandry, are strongly committed to conservation, with 23 years' experience in park management.
- The island's 19 villages out of 23 are directly involved in co-management, have developed a conservation DNA, integrating sustainable practices into their way of life. There are 11 fishermen associations in the Park.

### Park management issues and challenges

- Key issues include combating coastal erosion, protecting mangroves and seagrass beds, and preserving sea turtles and marine mammals.



- Management of marine resources is crucial, with efforts to maintain fish and octopus' stocks for sustainable exploitation.
- The establishment of operational marine reserves is a challenge, with eight areas identified but not yet functional.

### Governance and co-management

- The Park is under the supervision of the Ministry of the Environment, with a 42-member management committee, illustrating a participatory approach.
- The co-management agreements signed with the communities include prohibited practices on pain of sanctions, thus guaranteeing effective monitoring of commitments.
- The structure of the fishermen's associations is mainly village-based, with each association having its own fishing zone, which favours locally adapted management.

### Projects and expectations

- Several projects, such as the RECOS project, aim to restore mangroves and seagrass beds, as well as protect turtles and cetaceans.
- Expectations of partners include training staff to strengthen their skills in protected area management, developing ecological monitoring methodologies, and seeking funding to support local communities.
- Promoting the Park's visibility through regional and international networking is also a priority, in order to attract more support and resources for conservation.

In conclusion, the presentation highlights the significant efforts made to conserve Moheli National Park, while underlining the importance of collaboration between local authorities and communities in tackling environmental and social challenges.



## COMOROS PROTECTED MARINE AREAS

NADJIM AHMED MOHAMED – FACULTY OF SCIENCES AND TECHNOLOGY  
UNIVERSITY OF COMOROS

### Setting the scene

In the absence of the Comoros National parks Agency director, Nadjim Ahmed Mohamed shared information on ongoing projects and collaborations with UNDP and other partners. This report summarizes the key points made during this discussion.

### Key figures

- **Year MPAs established in Grande Comore and Anjouan:** 2022
- **Number of MPAs established:** 3 (Mitsamiouli-Ndroude, Coelacanthe, Shisiwani).
- **Project duration:** 5 years for RENAP1, followed by RENAP2.
- **Percentage of ocean protection:** Target of 30% protection of marine environments.
- **Financial partners:** UNDP, Marex de La Réunion.

### Establishment of marine protected areas

- MPAs in the Grand Comore and Anjouan have been promoted since 2015, with the Moheli Marine Park as a model.
- In 2022, two new MPAs were officially decreed in Grand Comore: the Mitsamiouli-Ndroude National Park in the north and the Coelacanthe National Park in the south of Grande Comore. The same year, the Shisiwani National Park was decreed in Anjouan.
- The RENAP1 project, funded by UNDP, was essential in assessing the scientific aspects of the new marine protected areas.

### Collaboration and co-management

- MPAs are co-managed with local communities, involving active collaboration between park managers and fishermen.
- The Comoros MPAs Agency coordinates all the parks.
- UNDP plays a central role in funding and managing resources for these MPAs via the RENAP1 and 2, ensuring that initiatives are sustainable and inclusive.



- Efforts are underway to recruit women to park management teams, underlining the importance of gender equality in marine conservation.

### Funding and sustainability

- Currently, funding for MPAs is mainly provided by the UNDP, which manages resources for several projects, including marine and terrestrial MPAs.
- Sustainability of funding remains a challenge, as projects are often based on temporary funding. There are concerns about funding interruptions between project phases.
- Partners, such as Bridge, are envisaged to create synergies and diversify funding sources, to ensure continuity of MPA operations.

### Research and ecological monitoring

- Research is underway to strengthen scientific knowledge of marine ecosystems, particularly through studies of seagrass beds and phytoplankton.
- Collaboration with academic institutions, such as the University of Comoros, is crucial to training MPA staff and improving ecological monitoring capabilities.
- Recent projects, such as Reinforcement of Oceans Protection in Comoros (RPOC), aim to strengthen ocean protection and train park staff in best management practices and ecological monitoring.

### Conservation targets

- At the COP on climate change in Dubai, the President of Comoros ratified a commitment to protect 30% of marine environments, underlining the importance of MPAs in the national conservation strategy.
- Park managers have identified specific areas for enhanced protection, in collaboration with local communities and fishermen, to ensure sustainable management of marine resources.

In conclusion, the discussion highlighted the significant efforts made to establish and manage marine protected areas in the Comoros, while underlining the challenges associated with funding and project sustainability. Collaboration between managers, local communities and international partners is essential to ensure the success of these conservation initiatives.



## FRENCH SOUTHERN LANDS – SCATTERED ISLANDS

SOPHIE MARINESQUE – FRENCH SOUTHERN LANDS

### Setting the scene

The presentation highlighted the conservation challenges facing the Éparses (Scattered) islands. These islands, located in the Mozambique Channel, are rich and diverse marine ecosystems, but they face growing environmental challenges, particularly in terms of fishing, pollution and climate change. The need to extend marine protected areas and implement appropriate regulations was highlighted.

### Key figures

- **5,000 species** inventoried on the Éparses islands, including around **80 marine species**.
- Over **100 species** endemic to the islands.
- **1.6 million pairs of** seabirds breed on the islands.
- **800 km<sup>2</sup>** of reef areas associated with the islands, in a high state of preservation.
- **30 to 60** tuna seiners authorized to fish in the waters of the Éparses Islands.
- **200** staff working for the administration of the French Southern and Antarctic Lands.

### Biodiversity and Ecosystems

- The Éparses islands are 5 remote coral islands home to an exceptional natural heritage, with over **5,000 recorded species**, including **80 marine species**. Of these, more than **100 species** are threatened according to IUCN red lists.
- The islands are also aggregation zones for numerous marine species, including seabirds, with **1.6 million pairs** breeding on these territories.
- Both green and hawksbill turtles are present, with Europa being a crucial nesting site for the green turtle in the Indian Ocean.
- Coral reefs and associated ecosystems, such as mangroves and seagrass beds, are in a good state of preservation, providing essential habitats for marine biodiversity.
- The Scattered Islands have no permanent inhabitants, counting with highly preserved ecosystems and an outstanding natural heritage in pristine conditions. For those reasons, they can contribute to conservation at a larger regional scale and to research on biodiversity and climate change.



## Conservation issues

- The marine protected area extension project aims to create a national nature reserve covering all the terrestrial and marine parts of the Éparses islands. This project is supported by maritime specialization work and the involvement of the scientific community.
- The reinforced protection zone identified in the project encompasses **100% of the coral reefs** and associated ecosystems, where all economic and extractive activities, including fishing, are strictly prohibited.
- Regulations in the rest of the perimeter must allow sustainable pelagic fishing, while protecting the most vulnerable areas.
- Challenges include the need to monitor the impacts of climate change, such as warming waters, coral reef bleaching and plastic pollution.

## Fishing and economic activities

- Fishing in the Éparses Islands falls into two categories: offshore pelagic fishing, which is authorized, and illegal inshore fishing. Coastal fishing is already prohibited on reef ecosystems.
- Some **30 to 60 tuna seiners** are authorized to fish in island waters, mainly European-flagged vessels based in the Seychelles.
- Targeted species include various tuna species, but fishing in this area does not represent a significant share of total fishing in the Indian Ocean.
- Illegal fishing, often carried out by vessels from Mozambique or South Africa, targets species such as sea cucumbers and shark fins, supplying Asian markets.

## Pollution and climate change

- The remote islands face a number of pollution issues, including plastic and noise pollution, as well as the impact of heavy shipping traffic in the Mozambique Channel.
- Maritime traffic in this region is comparable to that in the English Channel, with oil tankers regularly passing through, posing risks of hydrocarbon pollution.
- Climate change, such as warming waters and heat waves, is also affecting the health of reef ecosystems, leading to bleaching and impacts on marine biodiversity.

## Governance and collaboration

- The French Southern Lands (Terres Australes et Antarctiques Françaises) are managed by the administration, which collaborates with a number of



governance bodies, including a scientific council and an advisory committee.

- The specific nature of these territories, which are not part of the European Union, enables the administration to directly manage fisheries and issue fishing licenses.
- Research and monitoring projects are underway, notably around seamounts and coral reefs, with international collaborations to enhance knowledge and protection measures.

In conclusion, the presentation highlighted the importance of the Éparses islands as unique marine ecosystems, while underlining the conservation challenges they face. The establishment of a national nature reserve and the development of appropriate regulations are essential to preserve biodiversity and ensure the sustainability of economic activities in this region.

## GENERAL DISCUSSION

### ALL

To close the session, a discussion hosted by Stéphanie Duvail and Rodolphe Devillers raised some key points.

### Common challenges facing protected areas

- **Shared issues:** Managers have identified several common challenges, including coral reef management, fisheries regulation, and the need for sustainable management of marine resources. Marine species migrate between different protected areas, making inter-island cooperation essential.
- **Insufficient resources:** All managers expressed concern about the lack of human and financial resources to ensure effective management of protected areas. The need for long-term, structured management was emphasized.
- **Community involvement:** Involving local communities in decision-making and resource management was identified as a crucial challenge and essential to their success.

### Integration of scientific and traditional knowledge

- **Co-management of resources:** Managers discussed the importance of co-management, integrating the knowledge of fishers and marine users into



decision-making. For example, in Comoros, managers used fishers' perceptions to develop sustainable solutions.

- Community monitoring: In Moheli, joint monitoring initiatives between managers and community representatives have been put in place to strengthen community involvement in conservation. This also helps to compensate for the lack of staff on the ground.
- Success stories: A concrete example of success is the octopus biological rest program, which started with a single village and expanded to 19 villages thanks to positive results observed by the communities in Moheli.

### Education and awareness-raising

- Importance of education: Public stressed the need to educate the younger generations on marine conservation and eco-citizenship. Educational initiatives are essential to foster long-term behaviour change.

### Surveillance and regulation

- Strengthening surveillance: Managers agreed that surveillance of protected areas is essential to prevent violations and protect marine resources. However, the lack of means to carry out this surveillance was a major point of concern.
- Collaboration with fishers: Traditional fishers expressed support for regulations that protect resources, as long as they are applied fairly and transparently. This highlights the importance of a collaborative approach in developing regulations.
- Sustainable management beyond protected areas: A call was made for sustainable management to extend beyond protected areas to all marine areas. This requires cooperation between different stakeholders and increased awareness among decision-makers.

### Conclusion

The meeting highlighted the common challenges faced by protected area managers in the Indian Ocean, as well as the importance of collaboration between scientists, managers and local communities. Integrating traditional and scientific knowledge, educating younger generations, and strengthening monitoring are key elements to ensure effective conservation of marine resources. Managers expressed their willingness to work together to overcome these challenges and promote sustainable management of marine ecosystems.





# OPPORTUNITIES FOR REGIONAL COOPERATION



## AGENCE FRANÇAISE DE DEVELOPPEMENT GROUP

PATRICIA AUBRAS

### Context

This presentation focuses on the AFD's activities, with a focus on its commitments to sustainable development in the Indian Ocean region, including the financing opportunities available to local and regional stakeholders, as well as the importance of regional cooperation for the preservation of marine biodiversity and ecosystem management.

### Key figures

- 12 billion euros: Amount of AFD's annual commitments.
- 17%: Percentage of AFD's commitments concerning the Three Oceans department (Pacific, Atlantic, Indian Ocean).
- 30%: Share of financing allocated to the Indian Ocean as part of AFD's commitments.
- 5 countries: Number of countries covered by the Indian Ocean regional agency (Comoros, Mauritius, Madagascar, Mayotte, Réunion and TAAF, and Seychelles).
- 80 employees: AFD workforce in the Indian Ocean region.
- 3 theses: Number of theses funded under the RECOS project.

### AFD Commitments and Sustainable Development Strategy

- AFD is a major player in financing sustainable development, with a network spanning more than 100 countries.
- The agency's commitments focus on key themes such as climate, biodiversity, peace, education, urban planning and governance.
- Around €12 billion is committed each year, of which 17% is dedicated to projects within the framework of the Three Oceans, with particular attention paid to the Indian Ocean, which receives 30% of this funding.



## Biodiversity and Ecosystems in the Indian Ocean

- The Indian Ocean region is recognized as a biodiversity hotspot, with rich marine ecosystems but threatened by anthropogenic pressures such as maritime traffic and illegal fishing.
- AFD highlights regional pooling as an essential lever for the preservation of marine biodiversity, by promoting the interdependence of ecosystem services.
- Projects supported by AFD include research and conservation initiatives, with a focus on the management of marine protected areas and the restoration of coastal ecosystems.

## Key Projects and Financing Opportunities

- Two major projects were presented: the RECOS project and the SIOMPA project.
  - RECOS project: Concerns the resilience of coastal ecosystems and includes a scientific component with working groups bringing together regional and international researchers. This project has already enabled the financing of 3 theses.
  - SIOMPA Project: Aims to improve the connectivity of ecosystems and marine protected areas in the southwest Indian Ocean. This project was launched at the end of 2023 with a budget of 800,000 euros for COEXISTENCE and just over 1 million euros for MERMOZ.
- These projects represent significant opportunities for local and regional stakeholders to get involved in research and conservation initiatives.

## Collaboration with IORA and Other Partners

- AFD has established a partnership with IORA (Indian Ocean Rim Association) to combat illegal fishing and improve the governance of maritime resources.
- Specific programs are underway to address natural disaster risk management and ocean waste management, with the support of the Expertise France subsidiary.
- These collaborations aim to strengthen coordination between the different stakeholders in the region and optimize knowledge sharing to better preserve marine ecosystems.

## Governance and Coordination Issues



- One of the major challenges identified is the lack of governance structures to facilitate exchange and coordination between the different actors involved in biodiversity conservation.
- AFD emphasizes the importance of optimizing knowledge sharing to prevent risks and limit ecosystem degradation.
- The need for better coordination is crucial to maximize the impact of conservation and sustainable development initiatives in the region.

In conclusion, AFD plays a central role in supporting sustainable development initiatives in the Indian Ocean, with an emphasis on biodiversity preservation and regional cooperation. The projects presented offer significant opportunities for local actors, while highlighting the importance of effective governance and strengthened coordination between the different stakeholders.

## OFB – FRENCH BIODIVERSITY AGENCY

CELINE MAURER

### Context

This presentation shows the OFB's missions and projects in terms of regional cooperation and support for public policies in favor of biodiversity, international partnerships and ongoing initiatives. The main objective of this presentation was to demonstrate the OFB's commitment to preserving biodiversity through concrete projects and exchanges of experience.

### Key figures

- 4 areas of regional cooperation: Support for international negotiations, support to projects and partners, sharing of experience, partnership framework.
- Duration of the project with South Africa: 2024-2027.
- Number of OFB branches: 5 (Indian Ocean, West Indies, Polynesia, New Caledonia, Guyana).
- Partners involved: 3 agencies (OFB, SANBI, management of marine protected areas in South Africa).
- Co-financing: AFD (French Development Agency) and OFB.

### Missions of the French Office for Biodiversity

- Knowledge: The OFB is responsible for collecting and analyzing biodiversity data to inform policy decisions.



- Support for public policies: The OFB helps implement biodiversity policies by providing technical advice and resources.
- Management of marine protected areas: The OFB supervises and manages marine protected areas, ensuring their effectiveness and preservation.
- Awareness-raising and mobilization: The OFB works to raise public awareness and mobilize local stakeholders around biodiversity issues.
- Environmental police: The OFB also has a role in regulating and controlling activities that have an impact on the environment.

### A key project for regional and international cooperation

- Partnership with South Africa: A cooperation project has been launched for the period 2024-2027, focusing on the exchange of experience between the OFB and two South African agencies (SANBI and SANParks). This project aims to improve knowledge of habitats and ecological issues, as well as to develop management plans for marine protected areas.
- Methodology for developing management plans: The project includes workshops and seminars to share methodologies and good practices between managers of marine protected areas.
- Evaluation of social and ecological aspects: The evaluation of the management of marine protected areas is a central point, with indicators and dashboards to measure the effectiveness of the actions carried out.

### Networks and partnerships in France

- SARI Initiative: During a Ramsar seminar in La Réunion, support was provided to the managers of the SARI initiative, which aims to strengthen cooperation between southern African countries. This network allowed an exchange of experiences with the network of Ramsar managers in the Mediterranean, thus promoting the sharing of good practices.
- Expert network: The OFB collaborates with several major environmental networks in France, such as the Nature Reserves of France and the National Parks of France, to offer expertise to partner countries. This network is led by experts who facilitate the exchange of experiences and the co-financing of projects.
- Ramsar meeting declaration: A declaration was signed during the seminar between MedWet and countries members of SARI, marking the commitment of the participants to move forward on the issues of networking and cooperation in natural resource management.

### Future prospects and challenges



- Future projects: The OFB plans to continue developing partnerships and projects related to biodiversity, with a focus on marine protected areas and vulnerable species.
- Role of Bridges: The Bridges program could serve as a lever to strengthen peer-to-peer exchanges and the co-financing of theses, integrating emerging issues into the framework of OFB initiatives.
- Importance of cooperation: International and regional cooperation is essential to address current environmental challenges, and the OFB is committed to playing an active role in this dynamic.

In conclusion, the intervention highlighted the importance of the OFB in preserving biodiversity through concrete projects and strategic partnerships.

## GENERAL DISCUSSION

CELINE MAURER – OFB; THOMAS SBERNA – IUCN; PATRICIA AUBRAS – AFD GROUP; ARTHUR TUDA – WIOMSA

To close the session, a discussion hosted Frédéric Menard raised some key points around the major challenges and research priorities in the Indian Ocean region. The speakers discussed the issues related to collaboration between scientists, managers and decision-makers, as well as the crucial role of science in the development of a sustainable blue economy. This dialogue highlighted the obstacles to the implementation of effective policies and the need for an integrated approach to address environmental challenges.

### Key figures

- Less than 0.1% of government budgets in Africa are allocated to research.
- 70% of the planet is covered by oceans, but the blue economy remains the least funded SDG globally, representing approximately 0.01% to 0.02% of funding.
- The Great Green Wall, a 30-year initiative, raised \$18 billion in less than six months after strong political commitment.
- Marine protected areas (MPAs) are not effectively managed, with protection rates that do not meet the 30% targets set by international conventions.

### Challenges of Cross-Sectoral Collaboration



- Political contingencies: Speakers highlighted the difficulty of overcoming political interests to establish effective collaborations. Thomas Sberna mentioned that creating forums for discussion between different actors is essential to set up joint projects.
- Financing: Speakers discussed the challenge of continuity of financing tools for regional projects. Donors must work together to mix funding sources and support transnational initiatives.
- Project silos: Research and conservation projects are often fragmented, which limits their impact. Better coordination is needed to avoid duplication and maximize the use of resources.

## The Role of Science in the Blue Economy

- Research Framework: Arthur Tuda mentioned the importance of the Decade of Ocean Science, which sets out research priorities for Africa. This includes the need to better looking at knowledge gaps, for example underexplored areas such as the deep sea.
- Research Investment: African governments invest less than 0.1% of their budgets in research, limiting the ability to generate critical knowledge for the blue economy. Speakers called for increased investment to support research that informs policy.
- Sustainable Business Models: IUCN highlighted the urgent need to develop regenerative blue economy models that benefit both the economy and the environment. This requires proactive research to identify best practices globally.

## Political Mobilization and Leadership

- Importance of Leadership: Thomas Sberna stressed that the success of initiatives often depends on political leadership. Heads of State need to be mobilized to support large-scale projects, as illustrated by the Great Green Wall.
- Coalitions of actors: Speakers discussed the need to create coalitions of actors to convey a strong political message. This includes mobilizing Ministries of Finance and Foreign Affairs to integrate ocean issues into national priorities.
- Disconnection from conventions: While structures such as the IOC and the Nairobi Convention are important, there is a disconnect between these bodies and actual political decisions. Ministries of Environment, often less influential, need to work in synergy with other ministries to ensure effective implementation of policies.

## Conservation and Marine Protected Areas Issues



- Effectiveness of MPAs: Speakers highlighted that many MPAs are not effectively managed, with protection rates that do not meet international targets. Joachim Claudet, BRIDGES PI, noted that short-term economic interests often prevail over conservation objectives.
- Economic benefits: To convince decision-makers of the importance of MPAs, it is crucial to demonstrate their economic benefits, particularly in terms of fisheries and food security. MPAs must be seen not only as conservation tools, but also as levers for economic development.
- Scientific collaboration: Scientists must play an active role in raising awareness and communicating conservation issues. This includes the need to train young researchers to work collaboratively with decision-makers and to integrate economic perspectives into the





# BRIDGES

## Research program

Healthy ocean, protected fisheries



[BRIDGES Research Program](#)



[www.bridges-wio.com](http://www.bridges-wio.com)

