www.acpmeas.com

SWIOFC-NC PP2

Marine Spatial Planning (MSP) Workshop for the Western Indian Ocean

Zanzibar, Tanzania,

21 - 25 October 2024

Report

Figure 1: Marine Spatial Planning Workshop – Group Photo of Participants, 2024, Zanzibar, Tanzania.

A. Background to the Workshop

Coastal and marine ecosystems play a crucial role in supporting the livelihoods of coastal communities. They ensure food security and offer vast opportunities for a sustainable blue economy, including sectors such as tourism, shipping, fishing, and energy. Despite their importance, these ecosystems are increasingly threatened by unsustainable use, pollution, habitat degradation, and the impacts of climate change, driven by increasing human activities.

With the growing intensity of human activities in marine environments, there is a clear necessity for integrated management of coastal and marine resources. This can be effectively achieved through ecosystem-based and area-based management strategies. The environmental and social impacts of developments such as bioprospecting, waterfront development, oil and gas, as well as other extractive industries on the coastal zone needs better governance, integration, coordination and management of various sector activities, programmes and plans, by ensuring the sustainable development of coastal and marine areas and conservation of biodiversity and ecosystem services through the implementation of integrated coastal zone management taking into consideration issues of climate change.

Integrated coastal zone management (ICZM) provides a dynamic and participatory process that involves all relevant stakeholders aimed at planning, managing, conserving and protecting coastal and marine ecosystems and resources; taking into account their fragility and sensitivity, interactions, the nature of uses as well as their impacts with a view to ensuring sustainable development. The September 2023 ICZM Protocol of the Nairobi Convention provides that the geographical coverage of the Protocol shall be: (a) the landward limit of the coastal zone as defined by each Contracting Party; and (b) the seaward limit of the coastal zone extending to the outer limits of the exclusive economic zone and continental shelf as recognized by international law. Notwithstanding, a Contracting Party may define its seaward limit to an extent that is less than the outer limit of its exclusive economic zone.

The ICZM Protocol provides a framework for promoting regional and national integrated coastal zone management, as well as enhancing cooperation for sustainable development in the Western Indian Ocean region within the geographical coverage. It does so by promoting sustainable use and equitable benefit sharing of coastal and marine resources; and by conserving the ecological integrity and value of coastal and marine ecosystems and their valuable ecosystem

services. It provides for monitoring, preparedness, reduction, mitigation and adaptation, and monitoring of the effects of natural risks, especially those associated with climate change; encourages involvement of all stakeholders to participate in planning and implementation; addresses the emerging development activities on the coastal zone; promotes the development and implementation of regional and national integrated coastal zone management frameworks; and prevents, avoids, mitigates and where necessary offsets the harmful effects of anthropogenic activities on the coastal environment.

Marine Spatial Planning (MSP) has been promoted as a globally acknowledged interdisciplinary tool amongst other ICZM area-based tools designed to manage the distribution of human activities across marine and coastal areas over time and space. MSP aims to meet ecological, economic, and social goals as well as align different sector policies, thereby serving as a fundamental mechanism for fostering a sustainable blue economy and ensuring the conservation and responsible use of coastal and marine resources.

B. Initiatives Supporting MSP in the Western Indian Ocean Region

The Western Indian Ocean (WIO) countries have increasingly tapped into their marine and coastal resources for economic activities such as fisheries, shipping, energy and tourism. This often results in significant stress on vulnerable marine environments. Marine Spatial Planning (MSP) provides a framework for coordinated management across various sectors, fostering blue economic growth while safeguarding fragile ecosystems and minimizing environmental impacts.

The ten nations party to the Nairobi Convention, which focuses on the protection, management, and development of the WIO's marine and coastal environment, have recognized the critical role of MSP in promoting integrated resource management. This recognition is evident through the following initiatives:

i. Decisions from the Conference of Parties

Several resolutions from the Conferences of Parties (COP) have reinforced the commitment to MSP. For instance, Decision CP.9/10 underscores the importance of MSP in promoting blue economy pathways and calls for the development of capacity-building programs to use MSP as a tool for sustainable economic development. Furthermore, Decision CP.10/8, which focuses on area-

based planning tools for a sustainable blue economy, resulted in the Nairobi Convention's MSP strategy for the WIO. This decision encourages the integration of MSP and ecosystem-based approaches into national development planning by the Contracting Parties. Building on this, Decision CP.11/13 mandates the Secretariat, in collaboration with partners, to develop a regional roadmap for marine spatial planning, guiding national and local plans. Contracting Parties should integrate ecosystem-based planning into national strategies, conduct assessments, and use tools like WIO Symphony for evidence-based decision-making.

Additionally, there is a growing interest among the Contracting Parties in the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction (BBNJ). This interest aligns with the broader goals of MSP and reflects the commitment to comprehensive ocean governance that transcends national boundaries and promotes the sustainable management of marine resources on a global scale.

ii. WIO Region Marine Spatial Planning Strategy and Technical Working Group

The Nairobi Convention countries, with support of partners, have developed a WIO Region Marine Spatial Planning Strategy to support the region to address transboundary and cross-sectoral marine management challenges through MSP. The process was led by the Marine Spatial Planning Technical Working Group (MSP-TWG). Countries in the WIO region have developed and adopted MSP approaches for different purposes and are currently at different stages of implementation. An update on the readiness of countries to mainstream MSP into their national processes will be shared by the MSP technical working group. Participants' capacities on MSP will be provided during the workshop drawing from the regional strategy and MSP demonstration activities from the countries.

iii. WIO Symphony: A Key Tool for Environmental Impact Assessment in WIO

The WIO Symphony is an essential tool for conducting environmental assessments to support ecosystem-based Marine Spatial Planning (MSP) in the Western Indian Ocean (WIO). It features over 80 maps, each with a 1x1 km resolution, depicting region-specific ecosystem components and the pressures

exerted by human activities. These maps are created using publicly available data sources.

A unique aspect of the WIO Symphony is its integration with a WIO-specific sensitivity matrix, which highlights the vulnerability of various ecosystems to different pressures across the region. This tool is crucial for analyzing cumulative impacts and predicting environmental outcomes under various planning and management scenarios.

C. Integration of MSP Data, Information Management, and Ocean Governance

Effective Marine Spatial Planning (MSP) relies on comprehensive data and information management to guide planners and decision-makers. Incorporating detailed data from diverse sources requires substantial computational resources to ensure environmental considerations are integrated into the planning process. The interdisciplinary nature of MSP presents challenges in harmonizing and integrating data from various sectors.

In the context of ongoing MSP efforts in Kenya, Tanzania, Mozambique, Mauritius, Madagascar and Comoros, the WIO Regional Information Management Strategy (IMS) is crucial. The IMS supports the Nairobi Convention Contracting Parties Decision CP10/5.3, which requests the secretariat to strengthen national data centres, through capacity development on information and knowledge management, to address common challenges and take informed decision-making for ocean governance.

To ensure the effective use of the IMS and enhance MSP efforts there are capacity development initiatives through the Nairobi Convention Secretariat, EU ACP MEAs 3 Programme, the SWIOFC – Nairobi Convention Partnership Project Phase 2 in Kenya, Tanzania and Mozambique, the Swedish Agency for Marine and Water Management (SwAM) Ocean Program, WIO Symphony tool, and the SwAM International Training Programme (ITP) on Marine Spatial Planning. These initiatives align with MSP principles, focusing on environmentally sustainable, economically favourable, and socially balanced marine spatial planning, for enhanced ocean governance.

D. Objectives of the workshop and activities

The workshop aimed to strengthen MSP knowledge across the WIO region, specifically focusing on Comoros, Kenya, Madagascar, Mauritius, Mozambique, and Tanzania. The goal was to integrate national-level data and the Symphony planning tool into the management of marine resources and human activities, emphasizing conflict resolution, sustainability, and conservation efforts for blue economic growth.

Workshop activities

i. Advanced Spatial Data Analysis Training:

The training equipped participants with skills in spatial modeling, geospatial analysis, and statistical methods for in-depth data analysis. It focused on preparing, creating, and updating data layers with the potential of integrating local or national datasets identified by participants with compiled data sources. The training aimed to create nationally relevant data to update the regional datasets in the WIO Symphony tool for later assessment of MSP options.

ii. Capacity Building for Sustainable Marine Data Management:

The initiative strengthened national experts' capacities in GIS, IT, environmental science, and ecosystem-based fisheries management to promote sustainable marine practices. It gathered and generated essential data products to support MSP initiatives. Data was securely stored and described to ensure easy access and management. Participants were trained on how to regularly update the WIO Symphony data and to maintain current and accurate information.

iii. Conflict Identification and Resolution:

The WIO Symphony tool's potential and limitations for use in conflict analysis and zoning were explored. Conflicts involving fisheries and the environment, and/or other coastal activities, were identified and addressed in case studies. Parallel sessions were held to allow focused discussions on technical analysis and policy implications. These sessions incorporated both technical and policy-oriented discussions, providing opportunities for participants to engage based on their expertise.

iv. Enhanced Understanding and Use of Symphony Tool:

Participants were trained on utilizing the Symphony tool for MSP assessments, with a focus on sustainable management within the blue economy. The participating countries developed MSP planning options were based on gathered data (and stakeholder inputs). The drafted MSP plans were evaluated using the WIO Symphony tool to ensure they met environmental sustainability, conflict resolution and ocean governance and resource use spaces criteria.

v. Conservation and Protection Strategies:

Using available data, maps were developed with potential to conserve 30% of marine areas by 2030, emphasizing biodiversity preservation and the sustainable use of marine resources. MSP plans were revised and refined based on assessment outcomes to optimize environmental, economic, and social benefits. The session incorporated both technical and policy-oriented discussions, providing opportunities for participants to engage based on their expertise.

E. Outcomes:

i. Appreciation and understanding of MSP:

- Participants appreciated MSP as a tool for addressing the challenges and opportunities in the protection and management of the WIO coastal and marine ecosystems.
- Participants gained a better understanding of the process of developing Marine Spatial Plans, including the data and stakeholders required.

ii. Enhanced Expertise and Capabilities:

- Participants enhanced their expertise and capabilities for effective MSP implementation.
- Technical skills in GIS, R, and IT were enhanced for creating data to support MSP.

iii. Knowledge Sharing and Best Practices:

- Best practices and lessons learned on Marine Spatial Planning in the region were shared from Pemba Tanzania and from Mauritius.

iv. Empowered National Data Centres:

- National Data Centers were empowered with the knowledge and skills necessary to regularly update and seamlessly integrate relevant data into the WIO Symphony tool to support their country's marine spatial planning efforts effectively. Participants developed prototype national data products and layers to aid national MSP efforts.

v. Implementation of WIO Symphony Tool:

- Participants gained a comprehensive understanding of using the WIO Symphony tool incorporated with other GIS software to develop and support the implementation of national MSP.

vi. Capacity Building for Sustainable Management:

- Capacity for sustainable marine resource management and conflict resolution was improved.

F. Participants Skills Assessment

i. GIS/Modelling Experts

Some of the participants invited to the workshop had experience working with GIS applications and/or R programming in marine or geospatial data analysis within environmental contexts. National data centres require these enhanced expertise.

ii. IT Expert

Other participants had experience in database management, network security, and software troubleshooting. They could manage and maintaining IT infrastructure that supported GIS and environmental data applications.

iii. Fishery/Environmental or MSP Expert

Some of the participants had years of experience in marine conservation, environmental impact assessments, or MSP. They possessed knowledge of marine ecosystems, biodiversity, and conservation strategies, along with experience in MSP planning/assessment and conflict identification within an MSP context.

G. Data requirement

Part of the workshop focused on creating data relevant for national marine spatial planning. It was beneficial for the training when participants representing the environment and fisheries sectors worked with their GIS counterparts to identify and bring relevant datasets to the workshop for analysis. Participants were highly recommended to bring any data on a USB stick or hard drive in case of internet problems. Examples of relevant data included point data from field surveys, polygons, or GeoTIFF rasters. Important data brought along included those related to ecosystems and human activities, such as species inventories, fishing sites and catches, habitat maps, etc. Participants received instructions on data preparation before the workshop.

PLENARY SESSIONS

Challenges, Solutions, and the Future of WIO Symphony (from Menti exercises)

A. Challenges Identified

1. **Data Limitations**:

- Incomplete or low-resolution data for certain regions.
- Limited access to real-time or updated datasets, particularly for ecological and socio-economic parameters.

2. **Capacity Gaps**:
   - Insufficient technical skills and training among regional stakeholders to fully utilize the tool.
   - Lack of institutional structures to sustain long-term data management and application.
3. **Collaboration Barriers**:
   - Weak intersectoral and cross-border cooperation among WIO countries.
   - Challenges in integrating diverse datasets and methodologies from different stakeholders.
4. **Resource Constraints**:
   - Limited funding for system upgrades, maintenance, and user training.
   - Insufficient resources to scale the tool's application to more local contexts.

B. Proposed Solutions

1. **Enhancing Data Quality and Access**:
   - Develop partnerships to acquire higher-resolution datasets.
   - Incorporate remote sensing and AI tools for real-time data processing.
   - Encourage data-sharing agreements among regional stakeholders.
2. **Building Capacity**:
   - Conduct regular training workshops for technical users and decision-makers.
   - Develop user-friendly interfaces to simplify tool adoption for non-technical stakeholders.
   - Establish a dedicated technical support team for ongoing assistance.
3. **Strengthening Collaboration**:
   - Promote regional dialogues to harmonize data collection and analysis methods.
   - Use WIO Symphony as a shared platform for transboundary MSP initiatives.
   - Facilitate stakeholder engagement through participatory workshops and feedback sessions.
4. **Securing Resources**:
   - Explore partnerships with international donors and private-sector stakeholders.
   - Develop a financial sustainability plan, including potential subscription models for advanced tool features.

C. Future Directions

1. **Advancing Technology Integration**:
   - Introduce AI-powered analytics and predictive modelling to enhance the tool's decision-making capabilities.
   - Expand integration with other GIS platforms and marine databases.
2. **Expanding Application Scope**:
   - Adapt WIO Symphony for use in specific local contexts, such as community-based MSP.
   - Strengthen its role in addressing climate change impacts, such as sea-level rise and habitat loss.
3. **Engaging Users**:
   - Use interactive platforms like Menti to collect user feedback and foster community-driven improvements.
   - Encourage direct communication via the WIO Symphony email support system (wiosym@nairobiconvention.org).

4. Conclusion on WIOsym

The WIO Symphony tool remains a critical asset for promoting sustainable ocean management in the Western Indian Ocean region. Addressing challenges related to data quality, capacity building, collaboration, and financial resources will be pivotal in realizing its full potential. Future efforts should focus on enhancing technology integration, expanding its application, and fostering stronger stakeholder engagement to ensure the tool's success in supporting regional MSP goals.

For feedback or further information, contact WIO Symphony at **wiosym@nairobiconvention.org**.

5. White Paper Drafting for WIO Symphony

The session aimed to:

- Draft a **white paper** outlining recommendations for the continued development of the WIO Symphony tool.
- Provide a collaborative, non-binding platform for stakeholders to share ideas and reach a consensus.
- Build upon feedback from prior user surveys conducted earlier in 2024.

Key Discussion Highlights and next steps

a. **Metadata**:

- Recognized as critical for ensuring data accuracy and usability.
- Stakeholders emphasized improving metadata standards and documentation.

b. Skill Development:

- Need for enhanced technical training and peer-to-peer learning opportunities.
- Focus on equipping users with skills for handling complex datasets and tool functionalities.

c. Data Prioritization:

- High-resolution data for coastal and inshore habitats identified as a priority.
- Calls for integrating local and stakeholder-generated data seamlessly.

d. Sensitive Data Management:

- Developing clear protocols for handling sensitive information.
- Ensuring secure access and adherence to confidentiality agreements.

e. Tool Enhancements:

- Suggested new features included uncertainty maps, improved data visualization, and offline capabilities.
- Simplified processes for uploading and analysing local datasets.

f. White Paper Development:

- A workshop white paper is being drafted to consolidate findings and outline a strategic roadmap for the Wiosym tool development.
- The draft will be shared with the **Marine Spatial Planning Technical Working Group (MSP TWG)** for review and feedback.

g. Stakeholder Engagement:

- Continued collaboration through workshops and surveys to refine tool development.

h. Implementation Priorities:

- Addressing user-identified challenges, including data gaps, skill development, and tool functionality enhancements.

i. Conclusion

The workshop successfully gathered actionable insights to inform the WIO Symphony white paper, emphasizing collaboration, data improvements, and user-focused tool enhancements. These recommendations will guide the strategic evolution of WIO Symphony, strengthening its role in supporting MSP and sustainable ocean management in the Western Indian Ocean region. For further information, visit nairobiconvention.org/wio-symphony.

ANNEX I

PRESENTATIONS

All presentations and exercises are available at

https://www.nairobiconvention.org/clearinghouse/msp_workshop_OCT_2024

1. Advancing Marine Spatial Planning (MSP) in the Western Indian Ocean

Presented by Tomas Andersson and Wilhelm Gårdmark, SwAM

Marine Spatial Planning (MSP) aims to balance ecological preservation with economic and social objectives through a six-step process that includes setting the scene, planning design, assessment, plan development, implementation, and monitoring. Innovative tools like Sweden's Symphony provide valuable capabilities for mapping ecosystem impacts, supporting Strategic Environmental Assessments (SEA), and reducing pressures on sensitive areas. Regional cooperation is emphasized to foster cross-border MSP, adopt ecosystem-based approaches, and promote data sharing. Tools such as WIO Symphony integrate ecological, economic, and social goals, enabling sustainable marine resource use.

2. WIO Symphony: Evidence-Based Marine Spatial Planning

Presented by Duncan Hume (SwAM)

The tool calculates cumulative impacts of human activities and evaluates their environmental, social, and economic effects. It supports scenario modeling for sustainable marine management and aligns policies to balance development with sustainability. To enhance its effectiveness, integrating social and economic assessments with higher-resolution data is recommended.

3. Demonstration of the WIO Symphony Tool

Presented by Ed Sacre (SwAM)

The tool defines areas of interest, analyzes cumulative impacts, and supports scenario planning, making it a valuable asset for facilitating Blue Economy initiatives by balancing opportunities with sustainability. It is applicable in marine conservation, ecosystem protection, and policy support, providing actionable insights to enhance marine spatial planning (MSP) in the Western Indian Ocean (WIO) region.

4. Practical Exercises Using the WIO Symphony Tool

The process involved four steps: identifying planning objectives and gathering data, defining spatial boundaries, conducting impact assessments, and concluding with a trade-off analysis. This approach emphasizes scenario modeling to balance sector growth with environmental health while equipping users with practical skills in data evaluation and informed decision-making.

5. WIO Symphony Software Overview

Presented by Ann Ahlsten (SwAM)

The platform's architecture is built on Jakarta EE, PostgreSQL, and PostGIS, enabling efficient handling of spatial data, while its web-based interface supports multilingual use and streamlined data management. Core functions include scenario management and cumulative impact calculations, making it a robust and adaptable solution for sustainable marine spatial planning.

6. Local Marine Spatial Planning in PECCA, Zanzibar

Presented under the SWIOFC-NC Partnership Project

The approach emphasizes integrated planning, incorporating stakeholder input and zoning strategies to designate areas for fisheries replenishment, recreation, and mangrove use. Findings highlight key conflicts such as fishing pressure, competition between tourism and fishing, and challenges in managing aquaculture. The data is hosted by the Nairobi convention, on behalf of Zanzibar's First Vice President's Office (FVPO) and accessible through the link https://nairobics.maps.arcgis.com/home/webmap/viewer.html?webmap=bbbfddc465c8424a8e17a69f4f24266e

7. Mozambique Maritime Spatial Planning (POEM)

Presented by INAMAR and InOM, Mozambique

The legal framework was governed by national maritime regulations focusing on sustainability, ensuring that marine activities adhered to established guidelines. The scope of the initiative balanced economic, social, and environmental considerations, aiming to address the diverse needs of stakeholders. Implementation involved the use of geospatial platforms, district-specific plans, and the management of private maritime space use. However, challenges included fostering intersectoral collaboration and ensuring efficient data sharing among stakeholders.

8. ArcGIS Tools for Mapping and Data Sharing

Presented by Sydney, ESRI-EA

The system demonstrated advanced capabilities by integrating mapping, data management, and AI-powered analytics, enabling comprehensive analysis and decision-making. It supported real-time data processing and scenario modeling to enhance informed decision-making across various sectors. Its applications extended to disaster management, urban planning, and environmental conservation, making it a versatile tool for addressing complex challenges effectively.

9. Regional Ocean Governance and Blue Economy

Presented by Mwangi Theuri, NCS

The themes focused on ocean governance, emphasizing sustainable resource use and equitable benefits for all stakeholders. Regional strategies, such as the WIO Symphony, played a critical role in supporting transboundary management and fostering collaboration across borders. The concept of the blue economy seamlessly combined ecosystem health with economic growth, presenting opportunities for innovation and investment. Key opportunities included the development of blue bonds, donor collaborations, and the promotion of sustainable resource management to ensure long-term environmental and economic benefits.

10. High Seas Treaty and Biodiversity Beyond National Jurisdiction (BBNJ)

Presented by Hellen Kuria, HSA

The BBNJ treaty's goals centers on protecting biodiversity, establishing Marine Protected Areas (MPAs), and promoting equitable benefit-sharing to ensure the fair distribution of resources. Its core components include Area-Based Management Tools (ABMTs), Marine Genetic Resources (MGRs), and Environmental Impact Assessments (EIAs), which collectively provide a robust framework for effective ocean management. This treaty marked a historic milestone for ocean governance and sustainability, paving the way for enhanced conservation efforts and responsible use of marine resources beyond national jurisdiction.

Annex II

1. Meeting Presentations –
   Capacity Development Workshop on Marine Spatial Planning, WIO Symphony Tool, Knowledge Management and Online Data Sharing in the Western Indian Ocean Region | Nairobi Convention Clearinghouse Mechanism

ArcGIS Tools for Mapping, Data Collection and Information Sharing	EN
WIO Symphony: Advancing Marine Spatial Planning in the Western Indian Ocean MSP, impact assessment, and WIO Symphony	EN
WIO Symphony: Supporting Evidence-Based MSP: An Overview of Key Functionalities for National and Regional Marine Planning	EN
WIO Symphony: Tool Demo	EN
WIO Symphony: Introduction to Practical Exercises	EN
WIO Symphony: 2024 Software Overview	EN
WIO Symphony: GIS session	EN
WIO Symphony: End User Survey Results	EN
WIO Symphony: Discussion Challenges, Solutions, and the Future of WIO Symphony	EN
WIO Symphony: Workshop White Paper Drafting	EN
Pilot Integrated & Local Marine Spatial Planning - Zanzibar Journey Towards Local Marine Spatial Planning	EN
Mozambique Maritime Spatial Planning (POEM)	EN
Comoros Presentation: Practical Exercise 1	EN
Comoros Presentation: Practical Exercise 2	EN
Lamu Local Marine Spatial Plan (LMSP) Lamu archipelago is a significant world ecological and cultural heritage site with a fast growing human population. Team Kenya	EN
Madagascar Presentation: Practical Exercises part 1 to 4	EN
Mozambique Presentation: Practical Exercises (SOFALA bank)	EN
Tanzania: MSP Mkuranga Coastal Resource Management	EN
The High Seas Treaty (BBNJ)	EN
Recap for MSP Capacity Building Training Workshop	EN
WIO Symphony: Workshop White Paper (Draft)	EN
Call for action	EN
Regional Ocean Governance and Marine Spatial Planning for Blue Economic growth	EN

Annex III

Meeting Documents

Concept Note	EN
Provisional Agenda 21-25 October 2025	EN
Logistical Note	EN
List of Participants	EN

Detailed List of Participants and sponsorship

MSP –workshop 21 – 25 October 2024, Zanzibar, Tanzania

	Country Organization	Name and Address	Gender	Sponsor
1.	Comoros	Mr Mouchitadi Madi Bamdou Parc National de Moheli (PNM) Email: mouchtadimadi@yahoo.fr;	M	ACP MEAs 3 Prog
2.	Comoros	Mr Nair Aboubacar Cartography - Geographic information systems Tel: +269 356 94 95 Bp 41, Ex CEFADER , Mde Union des Comores Email: aboubacarnair@gmail.com	M	ACP MEAs 3 Prog
3.	Comoros	Dr. Nadjim Ahmed Mohamed Biologiste Marin Laboratoire des Sciences marines et Littorales Faculté des Sciences et Techniques Université des Comores Rue de la Corniche, Moroni, Union des Comores Tel: +269 341 6248 Email: nadjoh_51@outlook.com,	M	ACP MEAs 3 Prog
4. .	Comoros	Mr. Soifa Ahamed Soilihi Manager, Cordonnateur de l'Office National de Contróle Qualité et des Certification des Produits Halieutiques Tel: Email: soifaahamed@yahoo.fr	M	ACP MEAs 3 Prog
5.	Kenya	Edna Onkundi Marine ecology, data management, GIS & Remote Sensing Kenya Marine and Fisheries Research Institute Email: eonkundi@gmail.com	F	SWIOFC-NC PP2
6.	Kenya	Isaak Elmi NEMA Tel: +254722566944 Email: issak.nema@gmail.com	M	SWIOFC-NC PP2
7.	Kenya	Ms. Agnes Wangui Muthumbi University of Nairobi Tel: +254 722 249506 Email: amuthumbi@uonbi.ac.ke	F	SWIOFC-NC PP2
8.	Kenya	Mr. Fredrick Mungai Mburu GIS Expert Tel: +254 727802957 Email: mburufredrickm@gmail.com	M	SWIOFC-NC PP2
9.	Kenya	Mr. Charles Chege Kuria GIS Expert Tel: +254 748411365, +254 748411365 Email: kuriachege21@gmail.com	M	SWIOFC-NC PP2

	Country Organization	Name and Address	Gender	Sponsor
10.	Kenya	James Kamula NEMA Tel: 0722942081 Email: kamulajm@gmail.com	M	SWIOFC-NC PP2
11.	Kenya	Anne Wanjiru Kenya Marine and Fisheries Research Institute (KMFRI) Tel: Email: wanjiruanne31@yahoo.com	F	SWIOFC-NC PP2
12.	Kenya	Mr. Elijah Munyao IT Expert Nairobi, Kenya Tel: +254 722791789 Email: elijah.munyao@gmail.com	M	ACP MEAs 3 Prog
13.	Kenya	Mr. Bonface Mutisya Marine Environmental Expert Nairobi, Kenya Tel: +254716638701 Email: mutisya03@gmail.com	M	SAPPHIRE
14.	Kenya	Harrison Onganda Kenya Marine and Fisheries Research Institute (KMFRI) Tel: Email: hochieng2003@yahoo.com	M	SIDA
15.	Madagascar	RABARY Andriantsilavo Jean Michel Director of Blue Economy Promotion Tel: Email: rabary.andriantsilavo@gmail.com	M	ACP MEAs 3 Prog
16.	Madagascar	Mr Jacquis Rasoanaina Ministry of Environment, Ecology, Sea and Forests Director of Marine Protected Areas, Antananarivo, Madagascar Email: jacquis415@gmail.com; jacquis415@yahoo.fr	M	ACP MEAs 3 Prog
17.	Madagascar	RAMAMANIHANITRAMALALA Ranjaliva Vero Ocean Governance Head of Section MSP Technical Executive Group Member. Tel: +261340559309 Email: gasilovely@gmail.com	F	ACP MEAs 3 Prog
18.	Madagascar	Mr Mendrika Fahendrena RAKOTOMAMONJY Chef de Service de la Planification du Territoire Maritime (SPTM) Ministère de l'Amenagement du Territoire et du Service Foncier Tel: +261 34 07 505 91 Email : mendrika.fahendrena@gmail.com	M	ACP MEAs 3 Prog
19.	Mauritius	Mr Ramchurn Seenauth Alternate Focal Point NCS Divisional Environment Officer Ministry of Social Security, National Solidarity, Environment and Sustainable Development. Ken Lee Towers, Cnr Barracks and St. Georges Streets Port Louis, Mauritius. Tel: +230 203 62 00 Ext: 298 Email: rseenauth@govmu.org	M	ACP MEAs 3 Prog
20.	Mauritius	Mr. Oomesh Daworaj Assistant Systems Analyst/Senior Assistant Systems Analyst	M	ACP MEAs 3 Prog

	Country Organization	Name and Address	Gender	Sponsor
		Department for Continental Shelf, Maritime Zones Administration & Exploration Prime Minister's Office Tel: +230 57568277 Email: odaworaj@govmu.org		
21.	Mauritius	Dr. Avishek Dusoye Research and Development Officer/SRDO Department for Continental Shelf, Maritime Zones Administration & Exploration Prime Minister's Office Tel: +230 58074485 Email: adusoye@govmu.org	M	ACP MEAs 3 Prog
22.	Mozambique	Eng. Sofia Chambe National Directorate of Territorial Development (DNDT) Tel; Email: sofchambe@yahoo.co.uk	F	SWIOFC-NC PP2
23.	Mozambique	Marta Guilherme Zita National Institute of Sea (INAMAR) Tel: +258 847788650/+258 824127575 Email: marguizita@gmail.com	F	SWIOFC-NC PP2
24.	Mozambique	Clousa Maueua Oceanography national Institute of Mozambique (InOM) Tel: +258827417640 Email: clousamaueua@gmail.com	F	SWIOFC-NC PP2
25.	Mozambique	Anselmo Gaspar National Directorate of Environment (DINAB) MSP National Coordinator Tel: Email: anselmogaspar.ag.65@gmail.com	M	SWIOFC-NC PP2
26.	Mozambique	Ms. Rabeca Nhancale National Centre of Cartography and Remote Sensing (CENACARTA) Tel: Email: rcanhancale@gmail.com	F	SWIOFC-NC PP2
27.	Mozambique	Ms. Isolda Abelina Dlamine Agencia de Desenvollvimento Geo-Spatial Tel: +258 841439490 Email: idlamine@ade.gov.mz	F	SWIOFC-NC PP2
28.	Mozambique	Daniela Juelma Macuacua Instituto Oceanografico de Mocambique Tel: Email: d.juelma@gmail.com	F	SWIOFC-NC PP2
29.	Mozambique	Araújo Andicene National Institute of Sea (INAMAR) Mozambique Email: araujoandicene1@gmail.com	M	SWIOFC-NC PP2
30.	Tanzania	Simon Wankyo Focal Point NCS Tel: Email: wankyosimon@gmail.com	M	SWIOFC-NC PP2
31.	Tanzania	Eng. Siajali Pamba Zegge Lecturer, University of Dar es Salaam Tel: +255 713724713 Email: engpambasi@yahoo.co.uk / pambasijali@udsm.ac.tz	M	SWIOFC-NC PP2
32.	Tanzania	Mr. Tumaini Chambua Principal Fisheries Officer, NPFP-Fisheries, Ministry of Livestock and Fisheries; Tel: +254 713 751 209	M	SWIOFC-NC PP2

	Country Organization	Name and Address	Gender	Sponsor
		Email: chamstuma@gmail.com		
33.	Tanzania	Ms Magdalena Gerald Ngotolainyo Vice President's Office – VPO Dodoma, Tanzania Tel: +255754657745 Email: magdalena.ngotolainyo@vpo.go.tz / magdalenagerald@gmail.com	F	SWIOFC-NC PP2
34.	Tanzania	Dr. Fadhili C. Bwagalilo, Senior Lecturer. Natural Resource Governance & Geospatial Scientist, St John's University of Tanzania, P.O.Box 47, Dodoma Tel: +255 784 599 889, +255 767 599 889 Email: fadhilibwagalilo@gmail.com, fbwagalilo@sjut.ac.tz	M	SWIOFC-NC PP2
35.	Tanzania	Sophia Ibrahim Kivina Senior ICT Officer Tel: +255 786 415 66 Email: sophia.kivina@vpo.go.tz	F	SWIOFC-NC PP2
36.	Zanzibar	Dr. Salim Hamad Bakar Department of Environment Zanzibar Tel: +255 773 819 760. Whatsapp: +255 758 237 717. Email: salimbkr@yahoo.co.uk	M	SWIOFC-NC PP2
37.	Zanzibar	Othman Bakar Burhan FVPO Tel: +255 778046320 Email: othman.burhan@omkr.go.tz, othmanburhan01@gmail.com	M	SWIOFC-NC PP2
38.	Zanzibar	Mr. Ali Abdi Moh'd National Project Focal Point - Zanzibar SWIOFC-Nairobi Convention Partnership Project Zanzibar, Tanzania Department of Environment, Pemba Tel: +255 778901055 Email: anunafahmi@gmail.com	M	SWIOFC-NC PP2
39.	Zanzibar	Nassor Abdalla Nassor Head of ICT and Fisheries Statistics, Ministry of Blue Economy and Fisheries , Department of Fisheries Development and Marine Resources- Zanzibar Email: nassorabdulla@gmail.com	M	SWIOFC-NC PP2
40.	Tanzania	Naomi Mwagala NOCAMO Focal point Tel: Email: naomi.mwagala@vpo.go.tz	F	SWIOFC-NC PP2
41.	ESRI EA	Mr Sidney Nyongesa GIS Solutions Engineer Natural Resources Esri Eastern Africa KUSCCO Centre, Upper Hill Kenya Tel: +254 729017242 Email: snyongesa@esriea.com	M	ACP MEAs 3 Prog
42.	ESRI EA	Mr Kimble Gavane Technical Support Assistant Esri Eastern Africa KUSCCO Centre, Upper Hill Kenya Tel: +254 729017242 Email: kgavane@esriea.com	M	ACP MEAs 3 Prog
43.	GEODEV	Ms. Faith Kageni GeoDev- Kenya P.O Box 14066-00100 Nairobi Tel: 0729564507 Email: fkageni@geodev.co.ke	F	ACP MEAs 3 Prog
44.	GEODEV	Kennedy Mutinda GeoDev- Kenya	M	ACP MEAs 3 Prog

	Country Organization	Name and Address	Gender	Sponsor
		P.O Box 14066-00100 Nairobi Tel: 0714401891 Email: kmutinda@geodev.co.ke ,mutindakennedy94@gmail.com		
45.	SwAM	Wilhelm Gårdmark SwAM Email : wilhelm.gardmark@havochvatten.se	M	SIDA
46.	SwAM	Tomas Andersson SwAM Email: tomas.andersson@havochvatten.se	M	SIDA
47.	SGU	Duncan Hume SGU Email: Duncan.Hume@sgu.se	M	SIDA
48.	SGU	Daniel Mattsson SGU Daniel.Mattsson@sgu.se	M	SIDA
49.	SLU	Edmond Sacre SLU Email: edmond.sacre@slu.se	M	SIDA
50.	SLU	Claire Ract SLU Email: claire.ract@slu.se	F	SIDA
51.	SLU	Agnes Olin SLU Email: agnes.olin@slu.se	F	SIDA
52.	Nairobi Convention	Eunice King'ori Eunice.kingori@un.org	F	SWIOFC-NC PP2
53.	Nairobi Convention	Theuri Mwangi theuri.mwangi@un.org	M	SWIOFC-NC PP2
54.	Nairobi Convention	Mastura Chelangat chelangat@un.org	F	ACP MEAs 3 Prog