

**Prepared for the Sixth WIOSAP Project Steering Committee (PSC) meeting**

**8<sup>th</sup> – 9<sup>th</sup> June, 2022**

**Nosy Be, Madagascar**

**Concept Note for Session I: Overall project progress and implementation of national demonstration projects activities**

**I. Background**

The Contracting Parties to the Nairobi Convention are implementing the GEF funded project on 'Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities' (WIOSAP). The WIOSAP project implemented by UNEP and executed by the Nairobi Convention is supporting various interventions across the region to reduce impacts from land-based sources and activities and to sustainably manage critical coastal and marine ecosystems. WIOSAP is largely based on the Strategic Action Programme (SAP) that was developed by the project 'Addressing Land-based Activities in the Western Indian Ocean' (WIO-LaB).

During its implementation, the WIOSAP project has made various achievements ranging from support to on-ground demo projects on various thematic areas (namely: ecosystem restoration, marine spatial planning, MPA management, climate change, ICZM, water quality improvement, river flows assessments and management), development of key regional Guidelines and Toolkits, strengthening science to policy dialogues, capacity building, influencing key policy interventions and enhancing pipeline funding for sustainability. However, the COVID pandemic significantly disrupted especially demo projects implementation due to lock downs and restrictions on travel imposed by governments across the region during 2020 and half of 2021 to contain the spread of the pandemic. Consequently, demo projects lost up to one year of implementation time. With restrictions now eased, implementation of demo projects has now picked up. The Mid-Term Review report captures in detail the progress the project has made since inception, lessons learn and offers recommendations to enhance success and impact in the run up to the end of the project.

The participating countries include Comoros, France (La Reunion), Madagascar, Mauritius, Seychelles, Mozambique, Kenya, Tanzania, Somalia and South Africa. France isn't a beneficiary country.

The WIOSAP Project has four main components:

- **Component A:** *Sustainable management of critical habitats* focuses on the protection, restoration and management of critical coastal habitats and ecosystems recognizing the

important value of healthy critical coastal and marine habitats for *the future well-being of people in the WIO region*.

- **Component B:** *Improved water quality* focuses on the need for the WIO Region's water quality to attain international standards by the year 2035.
- **Component C:** *Sustainable management of river flows* aims at promoting wise management of river basins in the region through implementation of a suite of activities aimed at building the capacity for environmental flows assessment and application in river basins of the region.
- **Component D:** *Governance and regional collaboration* focuses on strengthening governance and awareness in the WIO region with a view to facilitating sustainable management of critical coastal ecosystems and habitats.

## II. Structure for project implementation

The Project has established various structures to support implementation at various levels including:

1. The Project Management Unit: Based in Nairobi under the Executing Agency for overall project coordination
2. National Implementation Committees (NICs): These have oversight on project interventions at country level including profiling and promoting the project within their respective countries. Focal Points chair the NICs making their role crucial in effective implementation of project interventions at national level. The Focal Points are also a crucial link to the Project Steering Committee.
3. Regional Task Forces and Working Groups: These are established to give necessary technical support to the project in different thematic areas relevant to the project. They include the: Sustainable Management of Critical Habitats Task Force, Water Quality Task Force, River Flows Task Force, Marine Litter and Microplastics Technical Working Group and the Marine Spatial Planning Technical Working Group, which also serves other projects of the Convention.
4. Project Steering Committee: The Project Steering Committee (PSC) play a critical role in the monitoring and evaluation of the project to make sure that the results of evaluations are used for performance improvement, accountability and learning. The PSC is responsible for approving strategic decisions and annual work plans, setting project direction, reviewing progress of the project, and identifying additional funding for the implementation of the project. The Steering Committee also provide policy-level liaison to national governments, through Inter-Ministerial Coordination Committees about the implementation of the projects at country level.

## III. High level milestone summary

**2016/17:** Preparatory phase, inception; ICZM Protocol 3<sup>rd</sup> negotiation; setting up of Project Management Unit (PMU); setting up and operationalization of the Project steering Committee (PSC); capacity building on senior leadership, Marine Spatial Planning (MSP) and Land Based Sources and Activities (LBSA) Protocol; initiation of the development of WIO Marine Protected Areas (MPA) and Critical Habitats Outlooks.

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**2018:** Continued setting up of PMU, setting up of national and regional coordination structures, initiation of the process for the development of various project guidelines, capacity building on senior leadership renewal, MSP and LBSA; development of WIO MPA and Critical Habitats Outlooks and call for concepts for demo projects.

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**2019:** Demo projects proposals development, review and approval; development, review and approval by PSC of 3 project Guidelines; validation and approval of MPA Outlook country chapters; approval of establishment of Science to Policy Platform (SPP) and establishment and strengthening of strategic partnerships e.g. RECs, PMAESA, WIO-C, IRD, CSIR, Southern Waters, Water Matters, Macquire University, Australia etc.

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**2020:** 20 demonstration projects approved and implementation underway but hugely disrupted by the COVID 19 pandemic. Various regional frameworks under development i.e. MSP Strategy, Water Quality Monitoring Framework, Ecosystem Indicator Monitoring Framework, Policy oriented *economic valuation assessment of the TBCA between Kenya and Tanzania*. launch of Guideline Mangrove and Seagrass Ecosystem restoration, EFA Guidelines. Mangrove Guidelines were launched during World Mangrove Day on 24<sup>th</sup> July 2020 and the Environmental Flows Assessment Guidelines were launched on 25<sup>th</sup> September 2020.

**2021:** The implementation of 20 demonstration projects ongoing but hugely disrupted by the COVID 19 pandemic but with easing restrictions from the 2<sup>nd</sup> half of the year, implementation picked up. The launch of Western Indian Ocean Marine Protected Areas Management Network (WIOMPAN) on 8<sup>th</sup> June 2021 that aims to support the professional development of MPA personnel and to provide a unified voice for MPA practitioners in the WIO region. The launch of The Western Indian Ocean Mangrove Network on 24<sup>th</sup> June 2021. The MPA outlook and an MPA dashboard developed in collaboration with the Focal Points and partners was launched in July 2021. Three marine litter assessments by the Regional TGW on Marine Litter and Microplastics completed on: 1. A review of the current status of marine litter and microplastics knowledge in the Western Indian Ocean region: amounts, sources, fate and resultant ecological and human health impacts on the coastal and marine environment; 2. economic consequences of unmanaged plastics and the economic opportunities in the WIO region and 3. review of marine plastic litter in the WIO region: Effectiveness of measures undertaken, and opportunities.

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#### IV. Summary of progress at component level

##### Component A: Sustainable Management of Critical Habitats

1. **Demo projects:** Eleven demonstration projects under Component A, are at various stages of implementation, focusing on ecosystem management, ICZM, MSP, ecosystem restoration, economic valuation, community livelihoods and climate change. According to the MTR Report as at Dec 2021, this component achieved the highest implementation success of 73.5%.
2. **Project Guidelines:** Two approved by PSC, i.e. Mangrove Restoration Guidelines which were launched in July 2020 and Seagrass Restoration Guidelines launched in October

2020. The Economic Valuation Guidelines and Climate Change Vulnerability Assessment are currently undergoing design before publication and dissemination.

3. **Regional Frameworks:** Economic Valuation of the Kenya – Tanzania Transboundary Conservation Area (TBCA) and Ecosystem Indicator Monitoring Framework underway and Regional MSP Strategy development completed and currently undergoing editorial review and design before publication. Development of a toolkit on sustainable port development underway.
4. **Contribution towards the UN Decade on Ecosystem restoration:** Many restoration projects currently underway will contribute towards the Decade focusing mainly on mangroves, seagrass beds and coral reef restoration. Additionally, in collaboration with WIOMSA, the WIO Mangrove Network and coordinated by the WIOSAP Regional Task Force on Critical Habitats, a book towards the Decade is being produced entitled: *Mangrove Ecosystem Restoration in the Western Indian Ocean Region: Lessons and experiences towards the UN Decade on Ecosystem Restoration 2021-2030*

### Component B: Improvement of Water Quality

1. **Demo projects:** Six demo projects at various stages of implementation focusing on wastewater management, marine litter, estuarine water improvement and strengthening of regulatory frameworks on water quality management. According to the MTR assessment as at Dec 2021, this component has achieved average rate of progress of 59.4% as the implementation of demo projects was hugely impacted by COVID and also most of the demos highly technical in design and implementation.
2. **Regional Frameworks:** Development of 4 key outputs on water quality completed: situational assessment, Framework, Guidelines and a policy brief on water quality monitoring framework completed. The policy brief influenced important decisions during the 10<sup>th</sup> COP of the Convention held in Nov 2021 i.e. *Decision CP.10/9. Monitoring of the marine and coastal ecosystems 1*. To request the secretariat to develop a regional coastal and marine ecosystem indicator monitoring framework, to support Contracting Parties to periodically assess the state of the marine and coastal environment and for adoption by a meeting of national focal points before the eleventh meeting of the Contracting Parties; *Decision CP.10/10. Water Quality and Marine litter 1*. To request the secretariat to establish a regional task force on water quality to support the development of a water quality monitoring framework and guidelines on national interventions, and for adoption by a meeting of national focal points before the eleventh meeting of the Contracting of Parties. 2. To request the secretariat and partners to finalise the preparation of a regional action plan to address marine litter and plastic pollution for adoption at the eleventh meeting of the Contracting Parties. Additionally, in collaboration with WIOMSA, the and coordinated by the WIOSAP Regional Task Force on Water Quality, a regional case studies on constructed wetlands is under development as a way of promoting this green technology in the management of wastewater.
3. **Marine Litter:** WIO regional marine litter action plan developed. Three marine litter assessments by the Regional TGW on Marine Litter and Microplastics completed on: 1). A REVIEW OF THE STATUS OF MARINE LITTER AND MICROPLASTICS KNOWLEDGE IN THE WESTERN INDIAN OCEAN REGION: amounts, sources, fate and resultant ecological impacts on the coastal and marine environment and on human health; 2). ECONOMIC CONSEQUENCES OF UNMANAGED PLASTICS AND ECONOMIC OPPORTUNITIES IN THE WESTERN INDIAN OCEAN: Steps Toward Action Plans; 3). A REVIEW OF MARINE PLASTIC LITTER IN THE WESTERN INDIAN OCEAN REGION: Effectiveness of measures undertaken and opportunities; 4). MARINE PLASTIC LITTER IN THE WIO REGION: Status, implications on the environment, human populations and effectiveness of measures and opportunities: A SYNTHESIS REPORT.

### Component C: Sustainable Management of River Flows

The Component stands at an average of 55% in terms of implementation progress as per the MTR slowed down largely by the pandemic and inherent technical complexity of the demos.

1. **Demo projects:** Three demonstration projects underway focusing on improving river flows in Betsiboka, Incomati, and Rufiji deltas as SAP priority river basins.
2. **Project Guidelines:** Environmental Flows Assessment (EFA) Guidelines completed and launched in September 2020 a regional capacity building workshop on the application of EFA held for senior water authorities managers of the beneficiary Convention countries.
3. **Comprehensive assessment of the Juba-Shabelle Basin** (Somalia) planned to generate policy and management recommendations for this important Basin. This is currently underway.

### Component D: Governance and Regional Collaboration

The major focus of this Component is project coordination, partnerships and policy influencing. As per the MTR assessment, implemented progress of activities has been rated at an average of 71.5%.

1. **ICZM Protocol:** 4<sup>th</sup> and final negotiation held in March 2019. Adoption by meeting of Plenipotentiaries planned for in collaboration with the *Capacity Building of Multilateral Environmental Agreements in African, Caribbean, and Pacific (ACP) Countries* project executed by the Convention.
2. **Ratification of LBSA protocol:** Four countries have ratified and engagement ongoing with other countries for ratification. Kenya, South Africa, France and Madagascar have especially made progress.
3. **Sustainability of the WIOSAP Project:** Several project proposals have been developed as a continuation of the activities that have been initiated by the WIO-SAP project, such as coastal resilience project in Kenya to be submitted to the Green Climate Fund (GCF); and the new project for the TBCA area between Kenya and Tanzania for which a PIF was developed and which will be expanded to become a regional project for GEF 8 as recommended under the MTR Report.
4. **Nairobi Convention Clearinghouse Mechanism (CHM):** CHM is a data reference centre in the Western Indian Ocean region providing accurate and relevant data and information for improved management and protection of the coastal and marine environment in the Western Indian Ocean region. Data in the CHM is aimed at satisfying the needs of communities and build the growing Western Indian Ocean information society. Consequently, the main customers and beneficiaries of the Clearinghouse are the Contracting Parties to the Nairobi Convention, through their local and central governments (policy makers, policy implementers, coastal and marine resource managers), environmental practitioners, academia and researchers. Other major potential users include non-governmental organizers (NGOs) and community-based organizations, UN agencies and the donor community. The CHM has been revamped with various products including the innovative and interactive MPA Dashboard. A knowledge management strategy is being developed with support from the EU funded MEAs project and WIOGI in collaboration with GIZ to enhance sustainability of the CHM.
5. **Science to Policy Platform (SPP):** Science-policy dialogues have been held every year since the inception of the WIOSAP project to support evidence based decision in the region within the mandate of the Convention and scope of the project. In 2019 in partnership with the SAPPHIRE project, the SPP was launched as a formal within the Convention to strengthen the linkage between science and policy. SPP has now become

the major mechanism through which proposed areas of decision for the COP are generated. The March 2021 SPP was attended by 174 participants (the highest number ever especially because it was virtual) during which 33 papers were presented in various thematic areas. A series with the papers presented will be published during Q2 of 2022.

6. **Partnerships:** The Convention has signed Memoranda of Understanding (MOUs) in support of the project with Port Management Association of Eastern and Southern Africa (PMAESA), Macquarie University and developed other strategic partnerships with other organizations for project delivery e.g. WIO-C members, Southern Consulting, Council of Science and Industrial Research (CSIR), WIOMSA, IRD, Maritime Technology Cooperation Center (MTCC) Africa and a number of academic and research institutions across the region in support of WIOSAP implementation.

## V. Progress in implementation of demonstration projects

In line with its partnership approach to implementation, WIOSAP project has partnered with the WIO governments, WIO-C members and FARI members in the implementation of 20 national demonstration projects addressing various components of the project (sustainable management of critical habitats, improved water quality, and sustainable management of river flows) across 9 out of 10 countries of the WIO region as prioritized by the countries and approved by the WIOSAP Project Steering Committee (PSC). WIOSAP project supported the establishment of National Implementation Committees (NICs) through the Nairobi Convention focal government institutions to provide the national coordination mechanism for implementation of these demonstration project activities at country level.

Component	Demonstration Project Title	Project Lead	Project progress
Component A (Sustainable Management of Critical Habitats)	Sustainable Management of shallow marine habitats in the Comoros through improved management planning and rehabilitation of degraded sites	General Directorate of Environment and Forests (DGEF)	<ul style="list-style-type: none"> <li>• Management plans have been developed and the implementing partner is -organizing their validation with the community and stakeholders</li> <li>• Restoration training was done using the Nairobi Convention seagrass and mangrove restoration guidelines.</li> <li>• The current MPA has increased fisheries catch according to the data captured.</li> <li>• Significant progress is made on restoration of 1 ha of mangrove and 1 ha of seagrass though there were challenges of managing marine litter which led to the death of some seedlings.</li> <li>• On capacity building at local levels, the implementing partner mentioned that the project worked with school going children who invite parents and other stakeholders and share the restoration activities. Capacity-building activities are still being undertaken while observing the COVID protocols.</li> </ul>

	<p>Enhancing stakeholder capacity on use of ICZM as a tool for conservation of the coastal and marine environment through a demo ICZM project in Malindi-Sabaki Estuary Area, Kenya</p>	<p>The East African Natural History Society – Nature Kenya (The EANHS)</p>	<ul style="list-style-type: none"> <li>• Sabaki River Estuary Management Plan is already drafted.</li> <li>• Training on best fishing practices, mangrove management, tour guiding biodiversity, and biodiversity monitoring have been conducted.</li> <li>• Beach Management Unit (BMU) equipped with standard fishing equipment (fishing nets, hooks, fishing lines, cooler boxes, and deep freezer) to demonstrate sustainable fishing practices and income generation</li> <li>• Common birds monitoring transects set up</li> <li>• Sabaki Site Support Group (SSG) equipped with binoculars and bird guidebooks to facilitate biodiversity monitoring and enhance ecotourism</li> <li>• Remittance of biodiversity monitoring data by Sabaki SSG to Nature Kenya and National Museums of Kenya</li> <li>• Road map of ecotourism circuit is developed.</li> <li>• Picnic banda constructed to serve as resting, briefing site and restaurant for visitors</li> <li>• Improved accessibility of road for ease of access to the Sabaki estuary</li> <li>• Eight solid waste management receptacles have been installed</li> <li>• Malindi town and beach clean-up exercises done by Sabaki SSG and County Government of Kilifi</li> <li>• 12 ha of mangroves have been restored where 12,500 mangrove trees have been planted</li> <li>• Mangrove tree nursery established to sustain restoration actions</li> <li>• Awareness creation done to about 1,500 people during international days (World Wetlands Days, World Environment Day, World Migratory Bird Day) and clean-up exercises, 200 T-shirts were printed, and sensitization was done in Milele FM Radio.</li> <li>• Lessons and Best practises were shared from Mida Creek SSG on ecotourism.</li> <li>• Articles published in newsletters and magazines to share lessons</li> </ul>



	Towards integrated spatial planning for sustainable management of coastal and marine resources in Kilifi county, Kenya	World Wide Fund for Nature Kenya (WWF-Kenya)	<ul style="list-style-type: none"> <li>• Multi-stakeholder engagement workshops to review and enhance the Kilifi CSP were conducted.</li> <li>• Development of the draft Kilifi County Spatial Plan incorporating local, national and global conservation priorities has been done.</li> <li>• Land use zone maps and CESA maps (Marine, Terrestrial) have been developed and incorporated into the current County Spatial Structure.</li> <li>• The County Spatial Plan (with MSP) has been approved by the County Assembly</li> <li>• Notice of Approval due</li> <li>• Design and Production of the approved plan due</li> <li>• Launch and dissemination of the Plan copies to Wards due</li> <li>• Digital data management systems strengthening is underway with GIS Lab layout design, procurement of computers and Software completed.</li> <li>•</li> </ul>
	Developing collaborative strategies for sustainable management of mangroves in the Boeny Region Littorale, Madagascar	Directorate General of Environment at the Ministry of Environment and Sustainable Development (MEDD) - Centre National de Recherches Oceanographiques (CNRO)	<ul style="list-style-type: none"> <li>• Reforestation 25 ha of mangrove has been done</li> <li>• So far there are 200 partners from the local community involved in monitoring</li> <li>• Partnership with women's associations in the field of income-generating activities is underway</li> <li>• Collaboration with the Ministry of Environment and Sustainable Development for all mangrove events (World Day, participation in office renovations, purchase of computer and other supplies) is ongoing</li> <li>• 2022: Land reforestation with the local community. 3.000 feet including fruits tree</li> <li>• 2022: Mangrove reforestation. 8.000 feets of Avicennia marina with local community</li> <li>• Consultant recruited for community plan to protect mangrove</li> <li>• Started development of ecotourism in Boanamary Commune</li> </ul>
	Coral culture for small scale reef rehabilitation in Mauritius	Mauritius Oceanography Institute	<ul style="list-style-type: none"> <li>• Construction of multi-layered rope nurseries at Poudre D'Or, Le Morne and Bambous virieux.</li> <li>• Populating multi-layered rope nurseries with coral fragments.</li> <li>• Maintenance of multi-layered rope nurseries.</li> </ul>

			<ul style="list-style-type: none"> <li>• Registration of trainees at three earmarked regions (Poudre D'Or, Le Morne and Bambous virieux) completed.</li> </ul>
	<p>Assessment of Blue Carbon Ecosystem (Seagrass) around the island of Mauritius</p>	<p>Albion Fisheries Research Centre (AFRC)</p>	<ul style="list-style-type: none"> <li>• <u>Component 1: Seagrass mapping</u> <ul style="list-style-type: none"> <li>• Surveys and mapping of seagrass have been completed at all the main and important seagrass meadows in Mauritius.</li> <li>• The Seagrass species evolving in Mauritius has been identified morphologically and the genetic characterisation is still to be carried out.</li> <li>• A map depicting the important seagrass meadows around Mauritius is being prepared.</li> </ul> </li> <li>• <u>Component 2: Blue Carbon sequestration</u> <ul style="list-style-type: none"> <li>• Triplicate sediment coring have been carried out at 5 important seagrass sites around Mauritius</li> <li>• Lab processing of samples is on-going for analysis in Australia</li> </ul> </li> <li>• <u>Component 3: Seagrass Monitoring</u> <ul style="list-style-type: none"> <li>• 5 Monitoring sites have been established at the important meadows where Blue Carbon sequestration is being investigated.</li> </ul> </li> <li>• <u>Component 4: Sensitisation and Education</u> <ul style="list-style-type: none"> <li>• Educational materials and sensitization are being prepared and yet to be implemented.</li> <li>•</li> </ul> </li> </ul>

	<p>Habitat restoration and attraction of seabirds to Ile aux Aigrettes, Mauritius</p>	<p>Mauritian Wildlife Foundation (MWF)</p>	<p>10.5 ha of Ile aux Aigrettes has been weeded so far (up to 10 April 2022) and an additional 4 ha has been re-weeded to control highly invasive weeds.</p> <ul style="list-style-type: none"> <li>• 1 ha of habitat suitable for returning seabirds has already been identified, mapped, weeded and planted with 260 <i>Chrysopogon argutus</i></li> <li>• A biosecurity protocol for visitors and staff to Ile aux Aigrettes has already been updated and circulated to key staff since the start of the project.</li> <li>• A total of 1722 plants have been planted so far in newly weeded areas and vegetation gaps. 397 plants were planted in 2022.</li> <li>• 50 seabird decoys have been completely refurbished. 52 decoys were deployed, and the seabird call playback system has been activated since August 2021. A monitoring plan was written and monitoring for returning seabirds is being conducted since August 2021. We have also placed camera traps to monitor for returning seabirds. Sightings were recorded of seabirds flying near and on the island. However, the seabird component of the project is on hold since March 2022 as the staff working on seabird got a new job and left. We are currently looking into recruiting a new staff to replace him.</li> <li>• 9000+ visitors have visited Ile aux Aigrette since the start of the project and learned about the ecosystem restoration work conducted on the</li> </ul>
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			<p>island. To note since 2020, visits to the island were impacted significantly by the oil spill and due to COVID-19 lockdowns and restrictions.</p> <ul style="list-style-type: none"> <li>• Media: Mrs Sarah Unno, journalist from the Mauritius Broadcasting Corporation (MBC), visited Ile aux Aigrettes on 21.01.22 and filmed the seabird attractant work which was broadcasted in the news on national television.</li> </ul>
	<p>Undertake seagrass restoration for Sustainable Shellfish and drafting a management plan action guideline for seagrass restoration, Mozambique</p>	<p>Universidade Eduardo Mondlane (UEM)</p>	<ul style="list-style-type: none"> <li>• Research visits done per site (focus to Inhamabne, western Maputo Bay and eastern Maputo Bay/Inhaca Island)</li> <li>• Biodiversity of species identified including ecological data.</li> <li>• Survey of stakeholders/agents involved in the seagrass fisheries for socio-ecological analysis conducted, including standards and socio-anthropological procedures such as involving focus discussions and key informants</li> <li>• Diagrams and analysis of value chains, gains, revenues throughout the chains produced.</li> <li>• Daily routine of people, focusing on women and the existing practices that can sustain the seagrass restoration and conservation initiative undertaken.</li> <li>• New international publication <a href="https://doi.org/10.3390/d14030170">https://doi.org/10.3390/d14030170</a> summarized the above achievements of the project</li> <li>• Community members trained on restoration techniques.</li> <li>• Seagrass restoration conducted in critical areas of Inhaca, Inhambane (anthropogenically and naturally impacted) and assisted restoration tested.</li> <li>• Two publications preceded and helped understand and support seagrass restoration in southern Mozambique.</li> <li>• Around hectares of seagrass restored, covering Maputo Bay (mostly) but also Inhambane Bay</li> </ul>

			<ul style="list-style-type: none"> <li>Assisted restoration testing conducted in NW Maputo Bay. A suppression in a destructive practice (of collecting clams by means of hoe and machete) enabled a recovery of seagrass.</li> <li>Creation of a CBO devoted to seagrass restoration at Inhaca.</li> <li>Process underway to produce a draft seagrass management plan</li> </ul>
Mangrove restoration and livelihood support through community participation in Limpopo River Estuary, Mozambique	Agência Nacional para o Controlo da Qualidade Ambiental (AQUA)		<ul style="list-style-type: none"> <li>Mangrove mapping and change detection between 2003 and 2018/9 has been completed.</li> <li>Conducting carbon inventories in above ground, below ground and soil pools in healthy, degraded and restored mangrove forests is done.</li> <li>Mangrove fauna assessment in healthy, degraded and restored areas, the technical report has completed.</li> <li>Planting and hydrological restoration of mangroves in degraded areas is already done: 20 hectares of degraded area and 1855 meters channels were restored.</li> <li>60,000 mangrove seedlings from 6 species (<i>Avicennia marina</i>, <i>Cerriops tagal</i>, <i>Bruguiera gymnorhiza</i>, <i>Rhizophora mucronata</i>, <i>Xylocarpus granatum</i> and <i>Thespesia sp.</i>) of true mangrove and associated plants have been propagated in the Established community mangrove nursery.</li> <li>Environmental education campaigns on the importance of mangroves and best management practices Conducted.</li> <li>The Women cooperative for fish trade and support on the acquisition of some equipment (e.g.: one freezer) was created.</li> <li>10 smart hives were acquired and placed in the mangrove forest.</li> <li>10 pigs have been purchased and handed over to the community through the local natural resource management committee. All animals died in the course of swine fever in 2021.</li> <li>187 Community members were capacity building on environmental law aspects</li> <li>One mangrove local management plan was produced</li> </ul>
Community-based ecological coastal rehabilitation using an ecosystem approach, Seychelles	Terrestrial Restoration Action Society of Seychelles (TRASS)		<ul style="list-style-type: none"> <li>All baseline surveys are completed (these are - Marine survey of the lagoon within the Curieuse marine national park, Mangrove survey, Wetland (marsh and river) survey, Coastal forest survey, Biodiversity inventories in the mangrove, marsh, rivers and forest, and Community mapping.</li> </ul>

		<ul style="list-style-type: none"> <li>• The Rehabilitation and Management plan was produced and is being used to guide activities on site.</li> <li>• 2 ha of wetlands and associated woodland have been successfully rehabilitated and are regularly maintained (weeding, cleaning trails etc). An additional 1.5 ha was rehabilitated under the SeyCCAT project.</li> <li>• 2 ha of degraded hill has been successfully rehabilitated and are being maintained (weeding &amp; reinforcement of stone barriers around each seedling).</li> <li>• Over 3,500 seedlings have been planted on the entire site and are being maintained.</li> <li>• One innovative anti-erosion barrier using palm leaves was tested and it proved to be very effective in trapping sediments and reducing soil erosion on steep slopes. There are about 20 such barriers on the degraded slopes. The barriers have been replicated on other sites due to its great efficacy.</li> <li>• The rehabilitated sites are periodically maintained to control invasive plants that come back and to maintain stone barriers around the seedlings.</li> <li>• 2 training sessions were done with 13 participants from the University of Seychelles.</li> <li>• 3 training sessions were organized for 24 staff from the Seychelles Enterprise Transition Scheme (SETS).</li> <li>• 1 frog monitoring session for 7 participants from TRASS and the community was done.</li> <li>• 10 staff from Raffles hotel and 10 from the community were also trained in mangrove planting techniques in conjunction with the SeyCCAT project.</li> <li>• This gave a total of 8 training sessions for 64 participants for this period.</li> <li>• One article in the local newspaper (Nation) and one scientific publication was published (Etongo et al., 2021). The paper is entitled: Community engagement in forest rehabilitation within the context of a tropical island: Insights from Praslin, Seychelles. Applied Ecology and Environmental Research, Vol. 19. The publication was the result of a BSc Environmental Science thesis by Rajelle Barbe of UniSey as part of her internship with TRASS.</li> <li>• 10 outreach activities with communities were done despite restrictions on movement due to the Covid-19 pandemic.</li> </ul>
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	Developing collaborative management plan and sustainable mangrove restoration model in Rufiji Delta, Tanzania	Institute of Marine Sciences (IMS) - Zanzibar	<ul style="list-style-type: none"> <li>• The main outstanding activity is the re-profiling of a section of the wetland.</li> <li>• Identification of harvesting and restoration blocks done and aligned with the approved management plan. Map of harvesting and restoration blocks completed.</li> <li>• Validation of ecological, socio-economic and governance baseline data relevant to the project completed. Draft socio-economic and governance analysis report done. Manuscript titled on Incentives and Disincentives of Mangrove Conservation in Rufiji Delta submitted to the jour Trees, Forests and People..</li> <li>• Ban on mangrove harvesting lifted for Rufiji Delta, allowing planning of embarking on community engagement.</li> <li>• Comunities to be engaged in trial harvesting and restoration management identified in relation to the approved harvesting blocks</li> <li>• Consultation with TFS on proposed modalities for engaging with local community institutions done</li> </ul>
Component B ( <i>Improved Water Quality</i> )	Improving Mtwapa Creek water quality by use of Constructed Wetland Technology in Shimo la Tewa, Kenya	Kenya Marine and Fisheries Research Institute (KMFRI)	<ul style="list-style-type: none"> <li>• <b>Activity 1</b> – Construction of wetland to improve water quality in Mtwapa creek</li> <li>• 1. Desludging and conversion of existing septic tank to anaerobic baffled reactor-ABR (for primary treatment of wastewater) is completed and operational</li> <li>• 2. Sewer line from the men’s prison, women prison, courts and residential houses has been improved and connected to the anaerobic baffled reactor (ABR)</li> <li>• 3. Construction of the vertical and horizontal flow reed beds (HFRB and VFRB) is ongoing and is about 90%. completion expected by mid May 2022.</li> <li>• <b>Activity 2</b>-Improved sanitation infrastructure in the prison facility</li> </ul>

			<ul style="list-style-type: none"> <li>Improvement of sanitation facilities by renovation of washrooms (toilets and bathrooms) in the men and women prison is complete (20 toilets and bathrooms in men’s prison and 6 in women’s prison).</li> <li><b>Activity 3-</b>Operational Irrigation system and fish pond</li> <li>This activity is to be undertaken once activity 1 is completed and product water from the constructed wetland is certified as fit for use in crop production and aquaculture.</li> <li><b>Activity 4.</b> Disseminate constructed wetlands technology for uptake by other stakeholders</li> </ul> <p>Materials for dissemination to be packaged from May/June 2022 for sensitisation, publicity and other forms for dissemination when the constructed wetland is operational.</p> <p>An article on the Shimo la Tewa Demo Project has appeared on AFP-France 24-link below.</p> <p><a href="https://www.france24.com/en/live-news/20220401-kenya-jail-goes-green-to-fix-sewage-woes-and-protect-sea">https://www.france24.com/en/live-news/20220401-kenya-jail-goes-green-to-fix-sewage-woes-and-protect-sea</a></p>
	<p>Strengthening regulatory framework and national capacity for monitoring effluent discharges, water and sediments quality in coastal and marine areas of Madagascar</p>	<p>Directorate General of Environment at the Ministry of Environment and Sustainable Development (MEDD) - Centre National de</p>	<ul style="list-style-type: none"> <li>The decision support tool has been presented, adopted and validated by potential users during a national workshop: MEDD, CNRE, and the control officers during a national worksh (SAVA, BOINA, DIANA, and SOFIA) and representants from CNRE will be gathered for the second part of the training after testing the tool at their respective regions with their site specific environmental issues affecting coastal and marine environment.</li> <li>Each control officer has adapted the tool to their region (map, sampling point, parameters to be monitored, and data to be used with the tool)</li> <li>Control officers representing the 4 regions and CNRE are working on networking the tool, data , and information produced by the decision</li> </ul>



	Recherches sur l'Environnement (CNRE)	<p>support tool. The network is expected to be upscaled to other regions with big concerns related to land-based impacts.</p> <ul style="list-style-type: none"> <li>• Water and sediment samples collection in the Betsiboka estuary completed.</li> <li>• In the objective of strengthening the CNRE's monitoring capacity as the main structure for doing so, field testing materials have been ordered and awaited to be delivered.</li> <li>• Justification and rationale for the procurement of lab testing materials for CNRE have been submitted to Nairobi Convention Secretariat and WIOSAP PMU and awaited for internal decision.</li> <li>• After the first campaign of field work and collection of samples at the demo site (estuary of the Betsiboka river) CNRE is working on writing the monitoring framework before the presentation and validation of local stakeholders along with the presentation of interim EQO/EQT based on the obtained results.</li> <li>• With the additional funding, strengthening the above 4 regions will be started by the evaluation of their monitoring capacity, training needs, and procurement of field testing and portable meters so as to supply data to the decision support tool.</li> </ul>
Improving water quality by use of constructed wetland wastewater treatment as a Farm in the South of Mahé Island, Seychelles	Ministry of Environment, Energy and Climate Change (MEECC)	<ul style="list-style-type: none"> <li>• Four farms were visited, and two potential farms have been identified: Mr. Francois Vital farm and Mrs. Betty Lawen farm.</li> <li>• Two surveyors have visited the sites and provided their quotations to the Department of Environment. The procurement of the surveyors is underway.</li> </ul>
Upscaling and amplification of the Msingini Wastewater treatment facility model in Chake Chake town, Pemba, Tanzania	The Second Vice President's Office, Zanzibar (SVPO)	<ul style="list-style-type: none"> <li>• The kick-off meeting was held in Pemba in October 2021.</li> <li>• Topographical survey and leveling measurements were carried out by Green Water Consultancy firm.</li> <li>• A household survey in the catchment area was conducted within the 3 shehias.</li> <li>• Clearance of wastewater and sludge is in progress.</li> </ul>

			<ul style="list-style-type: none"> <li>Preparation of storage area for the disposal of sludge for other utilization purposes and awareness meeting to the local community around the project area conducted.</li> </ul>
	Improvement of ecosystem health and water quality by implementing a Source to Sea approach to tackle marine litter in five priority river systems in Durban, Kwazulu-Natal, South Africa	Department of Environment Forestry and Fisheries (DEFF)	<ul style="list-style-type: none"> <li>DFFE Branch Environmental Programmes to identify modalities for recruiting workers to conduct the litter recovery operations are ongoing,</li> <li>eThekwini Municipality and DFFE GIS specialist to identify &amp; map litter hotspots along the remaining 4 rivers is also ongoing.</li> <li>Durban Solid Waste (DSW) Department to identify existing outreach &amp; awareness interventions with schools and communities in the area.</li> <li>DFFE's Research Directorate to conduct the microplastics assessment. A dedicated micro-plastics laboratory has now been established within the DFFE as the implementing partner (sponsored under the Commonwealth Marine Litter Project).</li> <li>Project partners agreed on areas of collaboration &amp; support (Sustainable Seas Trust, The LitterBoom Project).</li> </ul>
	Improvement in Marine Water quality through enhanced Estuarine Management, South Africa	Department of Environment Forestry and Fisheries (DEFF)	<ul style="list-style-type: none"> <li>Situation Analysis Report developed to identify and analyse the impacts of poor water quality.</li> <li>Developed a common water quality programme,</li> <li>Established a PSC and Terms of Reference,</li> <li>Launched floating wetlands in Swartkops Catchment</li> <li>Developed a documentary on water pollution challenges on the estuary</li> </ul>
Component C: (Sustainable Management of River Flows)	Sustainable management of Eflows for west coast rivers of Madagascar: a case of Betsiboka River	Directorate General of Environment at the Ministry of Environment and Sustainable Development (MEDD)	<ul style="list-style-type: none"> <li>Workshop to appraise the MEDD and WIOSAP teams on the project and to elaborate the TTPs, data collection form and draft TORs in the implementation of the Betsiboka River Environmental Assessment Project.</li> <li>National launching and communication workshop with the National Technical Committees (NTC) established and validation of the ToRs of the attributions NTC and RTC and identification of the intervention sites in Antananarivo.</li> <li>Courtesy visit to administrative authorities, local and traditional authorities in Analamanga, Betsiboka and Boeny</li> </ul>

			<ul style="list-style-type: none"> <li>• Regional launching and communication workshop with the Regional Technical committees (RTC) established and validation of the ToRs of the attributions NTC and RTC and identification.</li> <li>• Guided visit done upstream, in the middle and downstream with surveys of the geographical coordinates of sensitive points such as tributaries, areas subject to erosion, silting of rice fields</li> <li>• Tor for study E flow management elaborated and validated of NTC and RTC</li> <li>• Call interest consultant in the environmental flow study launched</li> <li>• Evaluation of offers consultants in the environmental flow study accomplished</li> </ul>
	Environmental Flows for enhanced biodiversity and poverty alleviation in the Incomati delta, Mozambique (EFlows-Moz)	Universidade Eduardo Mondlane- Faculdade de Engenharia (UEM-FE)	<ul style="list-style-type: none"> <li>• Salinity and piscivorous waterbirds data collection is ongoing.</li> <li>• In depth interviews and biographies have been undertaken to understand the evolution of the landscape and impacts on uses</li> <li>• Monitoring of change and functioning of the wetland is ongoing.</li> <li>• Local observatory salinity data loggers have been deployed, and monitoring of the impacts on water uses is being done by local observers</li> </ul>
	Sustainable catchment management through enhanced Environmental Flow Assessment and Implementation for the protection of the Western Indian Ocean form land-based sources and activities in Tanzania.	Sokoine University of Agriculture (SUA)	<ul style="list-style-type: none"> <li>• Land use and land cover analysis using GIS and remote sensing has been conducted to characterize the biophysical features of the catchments and provide insights to what state they are in and the associated drivers and pressures as well as impacts.</li> <li>• Various means of communication have been used to create awareness on EFlows and the need for sustainable catchment management and restorations.</li> <li>• A scoping study was conducted to introduce the project and understand the key stakeholders working in the study catchment.</li> <li>• An inception workshop with the purpose of introducing the EFlows project was conducted in July 2021 and officiated by the District Commissioner for Mbarali District.</li> <li>• Using the multi-stakeholder platforms discussions were held and decisions made. The major discussion was on sustainable catchment management and restoration of degraded water sources and mechanisms for reducing impacts from land-based sources and activities.</li> </ul>



**VI. Expected PSC Decision**

1. Noting of overall progress in implementation of the WIOSAP project since the last WIOSAP PSC meeting in 9 November 2021
2. Noting of progress in implementation of national demonstration projects
3. Noting of the challenges in implementation of the national demonstration project including the COVID 19 pandemic
4. Approval of the Progress Report

**Encl: Annex: PIR for 2021 (please see labeled as Session I: Annex: UNEP GEF PIR Fiscal Year 2021)**