United Nations Development Programme

Country: Regional - Governments of Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania

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Project title: The Western Indian Ocean Large Marine Ecosystems **S**trategic **A**ction **P**rogramme **P**olicy **H**armonisation and **I**nstitutional **Re**forms (**WIO LME SAPPHIRE**)		
Countries: Regional - Governments of Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania	**Implementing Partner:** UNDP (Mauritius CO)	**Management Arrangements:** Direct Implementation through Mauritius Country Office with the Nairobi Convention Secretariat (UNEP) as a Responsible Party
UNDAF/Country Programme Outcome: N/A		
UNDP Strategic Plan Output: *Primary Outcome: 2.5. Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation* *UNDP Strategic Plan Secondary Outcome: 1.3. Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste*		
UNDP Social and Environmental Screening Category: low	**UNDP Gender Marker:** GEN 1	
Atlas Project ID/Award ID number: 00087612	**Atlas Output ID/Project ID number:** 00094555	
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Planned start date: September 2017	**Planned end date:** March 2023 (66 months from project document signature)	
LPAC date: 17 February 2015		
Brief project description: This Project builds on the previous work completed under the UNDP supported GEF financed Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project in close collaboration with a number of partners. The ASCLME Project delivered the intended regional TDA and ministerially endorsed SAP for the western Indian Ocean LMEs as well as individual Marine Ecosystem Diagnostic Analyses (MEDAs) for each participating country. The ASCLME Project also created the Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA). The SAPPHIRE Project aims to support and assist the appropriate and formally mandated government institutions and intergovernmental bodies in the region to implement the activities which they require in order to deliver the SAP and to ensure sustainability of efforts and actions toward long-term management of activities within the LMEs as well as the sustainability of associated institutional arrangements and partnerships. The project's activities have several cross-cutting themes, which will seek to meaningfully address progress towards meeting UNDP goals and targets with respect to sustainable development, poverty alleviation, early warning of disaster and climate change, SDGs, gender mainstreaming and youth. Throughout the implementation, the project will coordinate closely with the UNDEP GEF WIOLaB SAP project with the intention of harmonising activities and ultimately combining institutional and administrative process for a single implementation strategy for the two WIO SAPs.		

FINANCING PLAN	
GEF Trust Fund *or LDCF or SCCF or other vertical fund*	USD 8,766,500
UNDP TRAC resources	0
Cash co-financing to be administered by UNDP	N/A
(1) Total Budget administered by UNDP	USD 8,766,500
PARALLEL CO-FINANCING (*all other co-financing that is not cash co-financing administered by UNDP)*	
Government	USD 311,040,044
Other In-kind	USD 6,759,450
(2) Total co-financing	USD 317,799,494
(3) Grand-Total Project Financing (1)+(2)	USD 326,565,994

SIGNATURES		
Signature: print name below	Agreed by Government of Kenya	Date/Month/Year:
	Agreed by Government of Madagascar	
	Agreed by Government of Mauritius	
	Agreed by Government of Mozambique	
	Agreed by Government of Seychelles	
	Agreed by Government of Somalia	
	Agreed by Government of South Africa	
	Agreed by Government of Tanzania	
	Agreed by Government of Comoros	
	Agreed by Implementing Partner	

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LIST OF ACRONYMS AND ABBREVIATIONS

ABNJ	Area(s) Beyond National Jurisdiction
ACEP	African Coelacanth Ecosystem Programme
AoA	Assessment of Assessments
APR	Annual Performance Review
ASCLME	Agulhas and Somali Current Large Marine Ecosystems (Project)
BPA(s)	Benthic Protected Area(s)
CAHSA	Contiguous Adjacent High Seas Area
CAMFA	Conference of African Ministers of Fisheries and Aquaculture
CB&T	Capacity Building & Training
CBD	Convention on Biological Diversity
CBO	Community Based Organization
COI (IOC)	*Commission de l'Océan Indien* (Indian Ocean Commission)
COMESA	Common Market for Eastern and Southern Africa
CORDIO	Coral Reef Degradation in the Indian Ocean
CSIR	Council for Scientific and Industrial Research
DEA	Department of Environmental Affairs
DLIST	Distance Learning and Information Sharing Tool
DOALOS	Division for Ocean Affairs and the Law of the Sea (UN)
EAF	Ecosystem Approach to Fisheries
EBM	Ecosystem Based Management
ECS	Extended Continental Shelf
EEZ(s)	Exclusive Economic Zone(s)
EIA	Environmental Impact Assessment
EQO(s)	Ecosystem Quality Objective(s)
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization
FFEM	Fond Français pour l'Environnement (French Global Environment Facility)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographical Information System(s)
GIWA	Global International Waters Assessment
HSPD	High Seas Policy Development
ICZM	Integrated Coastal Zone Management
IGAD	Intergovernmental Authority on Development
IGO(s)	Intergovernmental Organisation(s)
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission / Indian Ocean Commission
IOTC	Indian Ocean Tuna Commission
IRD	French Research and Development Institute (*Institut de Recherche pour le Développement*)

IUCN	International Union for the Conservation of Nature
IW: LEARN	International Waters: Learning Exchange and Resource Network
JMC	Joint Management Commission
LED	Local Economic Development
LME(s)	Large Marine Ecosystem(s)
M&E	Monitoring and Evaluation
MAC	Main Area of Concern (from TDA/SAP)
MARPOL	Marine Pollution
MCS	Monitoring, Control and Surveillance
MEDA(s)	Marine Ecosystem Diagnostic Analysis(-ses)
MID	*Maurice Ile Durable* (Mauritius: Sustainable Island)
MPA(s)	Marine Protected Area(s)
MSP	Marine Spatial Planning
MSY	Maximum Sustainable Yield
NAP(s)	National Action Plan(s)
NEPAD	New Partnership for Africa's Development
NGO(s)	Non-governmental Organization(s)
NIOZ	Royal Netherlands Institute for Sea Research
NOAA	US National Oceanic and Atmospheric Administration
ODINAfrica	Ocean Data and Information Network for Africa
PAC	Policy Advisory Committee
PCU	Project Coordination Unit
PIF	Project Identification Form
PoI	Plan of Implementation (Relating to the WSSD)
PPG	Project Preparation Grant
PPP	Public-Private Partnership
PSC	Project Steering Committee
RAMA	Research Moored Array for African-Asian-Australian Monsoon Analysis and Prediction
REA(s)	Regional Economic Agreement(s)
REC(s)	Regional Economic Commission(s)
ReCoMaP	Regional Programme for Sustainable Management of Coastal Zone Resources of the Indian Ocean Countries
RFB(s)	Regional Fisheries Body(-ies)
RFMO(s)	Regional Fisheries Management Organisation(s)
RPSC	Regional Policy Steering Committee
RSC	Regional Steering Committee
SADC	Southern African Development Community
SAEON	South African Environmental Observation Network
SAP	Strategic Action Programme
SAPPHIRE	Strategic Action Programme Policy Harmonization and Institutional Reforms
SIOFA	South Indian Ocean Fisheries Agreement
SO-SI	Smart Ocean – Smart Industries

SPFIF	Sustainable Partnerships for Fisheries Investment Fund
STAP	Scientific and Technical Advisory Panel (as defined in SAP)
SWIOFish	South West Indian Ocean Fisheries
SWIOFP	South West Indian Ocean Fisheries Project
TDA	Transboundary Diagnostic Analysis
TWAP	Transboundary Waters Assessment Programme
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNDSS	United Nations Department of Safety and Security
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
VME(s)	Vulnerable Marine Ecosystem(s)
WIO	Western Indian Ocean
WIO-LaB	Western Indian Ocean Land-based Activities (Project)
WIOMSA	Western Indian Ocean Marine Science Association
WIOSAP	UNEP GEF Project 'Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities'
WIOSEA	Western Indian Ocean Sustainable Ecosystem Alliance
WOC	World Ocean Council
WSSD	World Summit on Sustainable Development
WWF	World Wide Fund for Nature

1. SITUATION ANALYSIS

1.1. Background to GEF Large Marine Ecosystem Interventions in the Western Indian Ocean

Large Marine Ecosystems are regions of the world's oceans, encompassing coastal areas from river basins and estuaries to the seaward boundaries of continental shelves and the outer margins of the major ocean current systems. They are relatively large regions on the order of 200,000 km² or greater, characterised by distinct bathymetry, hydrography, productivity, and trophically dependent populations.

The LME-based management approach recognises that the world's coastal and oceanic waters are degraded by unsustainable fishing practices, habitat degradation, eutrophication, toxic pollution, invasive species, etc. and that realistic and effective attempts to mitigate these threats require coordinated actions by governments and civil society to recover depleted fish populations, restore degraded habitats and reduce coastal pollution.

GEF and several of the UN implementing Agencies have adopted the Large Marine Ecosystem approach to management of coastal and offshore waters and in recognition of the fact that the majority of LMEs, particularly in developing countries, are shared by multiple numbers of countries. The basis of this approach focuses on the development and adoption of: 1) a Transboundary Diagnostic Analysis or TDA (a regional assessment of the threat and impacts to the LMEs and what are the root causes in the context of economic, political and social barriers and weaknesses) and 2) the development and formal endorsement of a regional Strategic Action Programme (SAP) for the LMEs that identifies an agreed set of governance reforms that the countries will jointly implement to address the agreed priority issues identified in the TDA. To this effect, GEF and its Implementing Agencies have supported a "programme" of three projects within the Western Indian Ocean region in order to develop an effective management and governance strategy for the Western Indian Ocean Large Marine Ecosystems, their goods and services and the welfare of the peoples and communities in the region that depend on those goods and services. These include:

'Addressing Land-Based Activities in the Western Indian Ocean' (WIO-LaB), implemented by the United Nations Environment Programme. This Project (which has already completed its TDA-SAP development phase) was addressing the impacts and related issues from land-based activities on the Western Indian Ocean Large Marine Ecosystems.

'The Southwest Indian Ocean Fisheries Project' (SWIOFP), implemented by the World Bank. This Project is dealing with the offshore and nearshore commercial fisheries issues related to the South Western Indian Ocean Large Marine Ecosystems.

'The Agulhas and Somali Current Large Marine Ecosystems Project' (ASCLME), implemented by the United Nations Development Programme. This Project is addressing all other coastal and oceanic activities including offshore ecosystem assessment, coastal livelihoods and community engagement, coastal artisanal and subsistence fisheries, larval transport, marine pollution and marine invasive species.

GEF has pioneered the use of a Transboundary Diagnostic Analysis (TDA) to prioritize transboundary issues, identify a set of formally-agreed actions, management reforms,

governance realignments and institutional arrangements that constitute a Strategic Action Programme for addressing concerns within Large Marine Ecosystems and other transboundary water management scenarios.

The WIO-LaB Project received full country endorsement before the other two projects and was able to move ahead and complete its TDA in 2009 and finalise and adopt its SAP (through country signature) by 2010. Since then, the requirements and agreements formally adopted by the countries through the SAP have been translated and captured into a formal Protocol on Land-Based Sources and Activities in support of the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and a further Protocol is currently under negotiation that will focus on Integrated Coastal Zone Management for the region.

Although the ASCLME Project started ahead of the SWIOF Project, once SWIOFP activities were underway, it was possible to harmonise the delivery of the two Projects. In 2010, GEF called for a Stocktaking Meeting in Nairobi to discuss progress and the way forward in terms of the LME Programme that it was funding in the Western Indian Ocean. At that Stocktaking Meeting it was agreed that ASCLME and SWIOFP would address their coastal and offshore commitments through a single TDA and SAP process, addressing all of those issues pertinent to the coastal and offshore areas of the LMEs that have not fallen under the output of the WIO-LaB project TDA and SAP. For a truly comprehensive LME management approach (watershed to outer offshore boundaries) these two SAPs (the previous WIO-LaB SAP and the current joint ASCLME/SWIOFP SAP) ultimately need to be implemented in collaboration through a cooperative understanding, whilst recognising and respecting the mandates of the various management bodies and institutions.

The countries of South Africa, Mozambique, Tanzania, Kenya, Comoros, Seychelles, Madagascar and Mauritius participated in the implementation of all Projects. Somalia had the status of an observer and was actively involved in the ASCLME Project. France participated in the implementation of the SWIOF Project through the co-financing of the *Fond Français pour l'Environnement Mondial* (FFEM), and was also an active partner in the ASCLME Project.

A phased approach was adopted for the three projects that progressively built the knowledge base and strengthened technical and management capabilities at the regional scale to address transboundary environmental concerns within the Western Indian Ocean (WIO). The projects also built political will to undertake threat abatement activities and leverage finances proportionate to management needs in the participating countries.

Figure 1 below shows the main area of focus within the western Indian Ocean for the project. The region covers approximately 22.3 million square kilometres and includes two known Large Marine Ecosystems – The Agulhas Current and the Somali Current, and a possible third LME, being the Mascarene Plateau. These LMEs and their adjacent seas are very closely linked ecologically and culturally and are commonly referred to as the Western Indian Ocean (WIO) region. Traditionally, this region has dealt with coastal and ocean management collectively (e.g. as through the Nairobi Convention and the South West Indian Ocean Fisheries Commission).

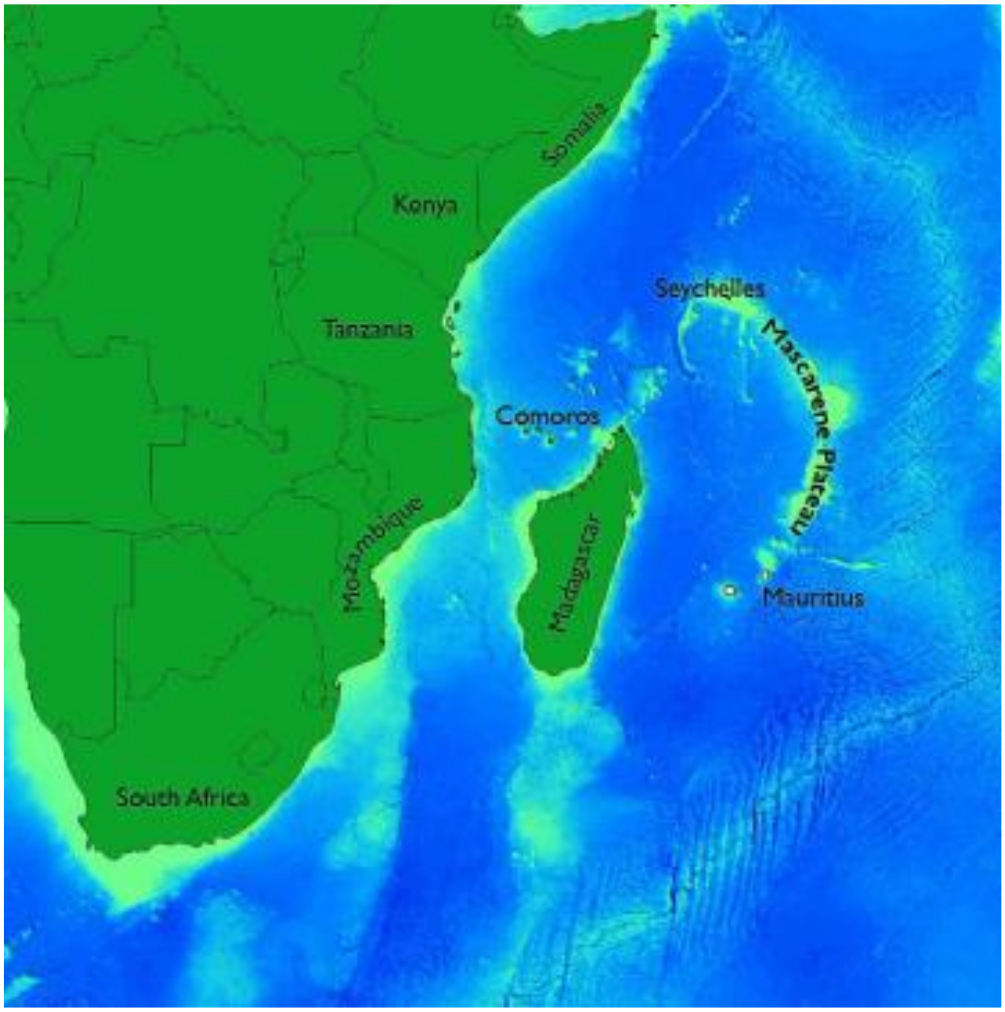


Figure 1: Map showing the western Indian Ocean region

1.2. Baseline Analysis

These LMEs and their adjacent seas are very closely linked ecologically and culturally, and are referred to collectively as the western Indian Ocean (WIO) region. The region is floored by deep abyssal plains and bounded to the west by non-volcanic continental shelves. The Mascarene Plateau is the most prominent bathymetric feature of the Indian Ocean and extends as a submerged part-continental and part-volcanic plateau for over 1,500km. The width of the continental shelf of the ASCLME region tends to increase southwards from the Somali coast in the north and extends to 150m depth on average. Approximately 700 seamounts have been identified in the WIO region and are known to be hotspots of biodiversity and marine biomass in the pelagic ecosystem. The coastline of the Agulhas and Somali LMEs countries, including mainland and island states, is over 15,000 km long. It includes a wide diversity of coastal habitats including rocky shores, sandy beaches, coral reefs, mangrove systems, seagrass beds

and estuaries which, in combination, supply a wealth of ecosystem services to the human populations along the coast. However, coastal habitats tend to be at high risk because of their proximity to land and marine based impacts and because they are typically easily accessible from land and vulnerable to overexploitation if not managed properly.

The oceanography of the WIO is influenced by the seafloor bathymetry, continental masses, input of water from surrounding oceans, and interaction with the atmosphere. Steady warming has been observed in both the Agulhas and Somali Current LMEs with warming of 0.68°C having been observed since 1957 in the former.

The entire WIO generates catches of more than 4 million tonnes of fish per year (FAO 2012a, van der Elst *et al*. 2005), produced by fisheries ranging from traditional subsistence and artisanal activities using a wide variety of different gears, to large-scale industrial operations fishing mainly with longlines, purse seines and trawling. Within the actual EEZs of the participating WIO countries, the catch taken in 2010 was recorded at approximately 750,0000 tonnes (www.seaaroundus.org/data/#/eez. 2015). The best available estimates (FAO-SWIOFC. 2011; www.seaaroundus.org/data/#/eez. 2015) are that one third of stocks in the region are now either over-fished or depleted. The most important underlying causes of declines in fish catches and resources, and recommendations for addressing them were obtained through a series of retrospective analyses. Retrospective analyses were done on the Crustacean Trawl Fisheries (Shallow), Crustacean Trawl Fisheries (Deep), Crustacean Trap Fisheries (Deep), Demersal Fisheries and Pelagic Fisheries, as well as on Biodiversity in Fisheries Management. An important common underlying cause identified from the analyses was a lack of adequate and appropriate data on the priority species for effective management of the fisheries in the region. This should be addressed by implementation of sampling and monitoring programmes in accordance with the specific features of each fishery. A second underlying factor was a generally limited understanding of the linkages between fisheries and biodiversity, including vulnerable species, bycatch and fishing impacts on target and non-target stocks, the ecological impacts of trawling and other interactions. The TDA findings noted that many of the national fisheries laws in the region do not adequately incorporate the binding obligations of international fisheries instruments and do not always reflect currently accepted “best practices” in fisheries legislation. Other concerns included the absence of regional management strategies for shared and transboundary stocks in the demersal and crustacean fisheries; overcapacity from rapidly increasing coastal populations together with high levels of unemployment and poverty; inadequate monitoring, control and surveillance; and the need to increase awareness about environmental and fisheries-related issues amongst coastal communities to encourage sustainable behaviours in the future.

A high diversity of species and communities exists in the waters of the Agulhas and Somali LMEs. By 2005, 11,257 marine species had been recorded from the western Indian Ocean region including island states but this is estimated to be less than 50% of the marine species that are actually present. Most of the ASCLME region falls into the Tropical Western Indian Ocean biogeographical region and is characterised by Indo-Pacific biota. The subtropical East Coast Province starts in southern Mozambique and extends to the Eastern Cape of South Africa. The biodiversity includes a total of 37 marine mammal species and five species of sea turtle. Eleven seabird families occur as breeding species within the geographical scope of the western Indian Ocean.

Less than 200 cartilaginous fishes have been recorded in the SWIO and, except for South Africa, little effort seems to have been made to assess the status of sharks and rays in the region. This

limited knowledge is of concern given that sharks and rays are likely to be heavily impacted by fisheries and other activities. Approximately 2,200 species of teleost fish have been recorded, consisting of 270 families. Many of these species are transboundary and shared between the WIO countries. The fishes of the region are subjected to a number of negative impacts which place them at differing levels of risk. The impacts arise from factors including ecosystem and habitat destruction, climate change and fishing, including targeted fishing or as bycatch. Fishing is also impacting on the species' environment in some instances.

Coral reefs, mangroves and seagrass beds are critically important tropical habitats in the region. They provide habitat and other services for coastal species and for coastal human populations which depend on them for food, livelihoods and other ecosystem services. These habitats are under threat from a range of human impacts including pollution, sedimentation, physical removal, human settlement and the damaging effects of fishing. One hundred and four introduced or alien species and 45 cryptogenic species have been identified within the region of which only 5 are considered to be invasive. However, the data available are very limited and are likely incomplete

Over 160 million people reside in the ASCLME countries and approximately 55 million of them live within 100km of the coast. Although variable from place to place, there is a high reliance on coastal and marine resources for food security and livelihoods in general. Because of their high dependence and limited resilience or adaptive capacity, environmental variability and extreme events have a disproportionately severe effect on dependent communities. Further, coastal cities and settlements are growing and developing at a rapid rate. Tourism, fisheries, coastal agriculture, mining, mariculture, and ports and coastal transport provide the main coastal livelihoods in the region. The relative contribution of each of these sectors and their specific characteristics vary from country to country but there are important similarities and common themes across the region. Notwithstanding constraints, there are a number of opportunities for sustainable development of the coastal areas in the western Indian Ocean. Regional (as well as sub-regional as appropriate) initiatives are required to bring together and assist the various stakeholders to discuss how best to develop these opportunities. Furthermore, there are real opportunities here to review and address how livelihoods impact on gender and vice versa. Additional research on how risks compare for men and women (particularly in light of the activities that each gender engages in) would be very valuable for communities.

A Transboundary Diagnostic Analysis (TDA) was undertaken by the countries of the western Indian Ocean region to provide a scientific and technical synthesis report for the current status of the Agulhas and Somali Current Large Marine Ecosystems. Jointly supported by the ASCLME and SWIOF Projects, it presents an analysis of ecosystem status and threats to the long-term sustainability of coastal and marine processes.

As defined by GEF International Waters: "The purpose of conducting a TDA is to scale the relative importance of sources and causes, both immediate and root, of transboundary 'waters' problems, and to identify potential preventive and remedial actions. The TDA provides the technical basis for development of a Strategic Action Programme (SAP) in the area of international waters of the GEF." (IW resources guide, terms and definitions).

The synthesis presented in the TDA was used to develop a Strategic Action Programme (SAP) to address the problems of greatest concern that are facing the marine and coastal ecosystems of the WIO region today. The joint ASCLME-SWIOFP TDA and SAP were intended to be complementary to the TDA and SAP for land based sources of pollution produced by the WIO-

LaB project *Addressing Land Based Sources of Pollution in the Western Indian Ocean* (UNEP/Nairobi Convention Secretariat 2009).

One notable addition to the TDA-SAP process, which was pioneered by the UNDP ASCLME Project, was the prior development of individual national Marine Ecosystem Diagnostic Analyses (MEDAs) for each country. This provided a number of benefits and improvements to the normal TDA-SAP process: 1) it provided each country with a substantive and up-to-date assessment of their marine ecosystems within their EEZs, but with a clear emphasis also on transboundary issues across the EEZs (in all directions); 2) this gave each country a baseline document upon which to either base a National Action Plan for management of marine resources or to improve and update any existing NAPs; 3) it created a solid 'ownership' of the process within each country, particularly through the creation and close collaboration of a group of national experts in the development of each MEDA. This close-knit working group of experts can then continue into the SAP implementation process as a national technical resource; 4) by undertaking this initial exercise in each country it was much easier to amalgamate these finding within an expanded regional TDA by bringing each of the national expert groups together within one forum to agree on a causal chain process and on the Main Areas of Concern that should later by addressed through the SAP.

1.3. On-Going National and Regional Policy and Legislative Support for Ecosystem-Based Management and the Objectives of the Strategic Action Programme

Regional overview

All of the participating countries have demonstrated their awareness of the value of their marine ecosystems though the aforementioned suite of three GEF projects and have undertaken highly detailed national Marine Ecosystem Diagnostic Analyses as well as a regional Transboundary Diagnostic Analysis (which have included cost-benefit assessments of good and services) leading to a ministerially endorsed Strategic Action Programme for the sustainable management of the Western Indian Ocean. The TDA provides all of the necessary supportive detail required in the context of the ecosystems

In 1993, the environmental and natural resource Ministers of the East Africa region met in Arusha, Tanzania, to address coastal problems at a regional level, and endorsed a Resolution on coastal zone management recommendations. Since then, Ocean Governance has become increasingly prominent on the African agenda, as it is globally. The recent finalisation of the 2050 African Integrated Maritime Strategy and its adoption by the Heads of States through the African Union was a huge milestone and a major highlight for the African Continent. However, the countries have also agreed that the Strategy itself will not generate any benefit to the Continent without a suitable and complementary ocean policy instrument together with a proper and well-coordinated institutional mechanism for driving the implementation of the Strategy in the field of training, education, research and innovation. To this effect, the African Union has also established a Panel of Experts to assist in the development of an African Ocean Policy (supported by various United Nations and other international agencies including UNEP, UNDP, FAO, DOALOS, the International Ocean Institute and the World Maritime University).

Most of the countries in the region have already developed national strategic approaches towards the green and blue economies and to ocean policy *per se* which are consistent with and complement the LME SAP. The following information on each country and the summary of its

management structure and legislation has been taken from the ASCLM/SWIOFP joint TDA and updated with more recently available information on ocean policy, governance and the blue economy strategies currently being developed in the countries. Volume One of the joint TDA deals with country baselines and includes a detailed section on Management, Policy and Governance for each country as well as a section on Regional and International Management and Governance in the western Indian Ocean which addresses pertinent legal instruments and regional institutional arrangements related to SAP management and the LME approach.

Comoros

ICM in Comoros is built around the Environmental management legislation and the institutional framework is adapted to respond to the guidelines on Sustainable Development as well as compliance with the new country's institutions from the process of national reconciliation. Most of the ICM activities have evolved around regional initiatives including regional bodies and organisations, regional projects, pilot projects, task-forces and networks all being coordinated by the National Sustainable Development Committee. This has improved the engagement of the government and the involvement of the civil society.

Kenya

Kenya already has an Integrated Coastal Zone Management Action Plan (2011-2015) and is now developing an overall Integrated Ocean Policy. This will include an institutional framework to guide the use and management of ocean space and marine resources. The task of policy formulation is being undertaken by a multidisciplinary national task force which also has the mandate to delineate the country's outer limits of the continental shelf and to prepare a subsequent submission to the Commission on the Limits of the Continental Shelf. This development process has recognised the requirement to collaborate with other regional initiatives such as those related to the LME Projects in the western Indian Ocean. The National biodiversity Strategy and Action Plan 2000 aims to harmonise the many laws that exist relating to environment, as well as the many sectors involved. The National Environmental Council and the National Environment Management Authority have been established in Kenya through the Environmental Management and Coordination Act of 1999. The Kenyan Marine and Fisheries Research Institute are very supportive of the ecosystem approach to fisheries and the overall LME SAP approach and were very active to this effect during the ASCLME project. KMFRI now has its own research vessel and has stated a strong interest in working with SAPPHIRE to fill gaps in understanding of the marine ecosystem offshore from Kenya and to support a regional level monitoring process for the SAP.

Madagascar

Madagascar has established an ICZM Inter-Ministerial Committee by a Decree signed by the Prime Minister as of February, 2009. The Mandate of the Committee is to ensure coordination and promotion of integrated coastal zone management including the implementation of the objectives of the Action Plan. The Committee is subdivided into three thematic Groups – ICZM Development and Integration; Pollution and Degradation; and Ecosystem Management and Socio-economic and Social Development. Each Thematic Group holds its meeting depending on needs. The ICM Inter-Ministerial Committee has a specific budget allocation from the Government of Madagascar. During the TDA development process, Madagascar identified the following 7 recommendations for improving its application of an LME approach and supporting the SAP.

1. Harmonization of existing laws and policies to improve and reduce fragmentation;
2. Amendments to fisheries legislation to allow greater community involvement in designation and management of marine resource;

3. Adoption of comprehensive legislation on ICZM
4. Strengthening local capacity for good governance;
5. Update the legislation on all relevant sectors so as to address the emerging issues;
6. Application of science based Governance so as to improve decision-taking
7. Human resources capacity building especially on judiciary and surveillance.

Mauritius

The Government has placed environmental issues high in its order of priorities for making Mauritius a sustainable island. A large number of policies, laws, regulations and guidelines have been formulated to ensure that the various facets of the country's natural and built environment remain clean, healthy and productive. The Government also recognises that gaps and discrepancies in environmental-related legislation and fragmentation of jurisdiction, coupled with dispersed institutional responsibilities and poor implementation and enforcement, can undermine legal and institutional authority, which could lead to failures in achieving the high standards expected by Government and society. The Mauritian government has therefore proposed that a Gap Analysis of existing legislation and regulations be carried out with a view to updating and harmonising them. This should be followed by allocation of clear, unambiguous mandates to existing institutions and organisations for the various components of biodiversity and natural resources. It has further been proposed that a new Ministry be created (the **Ministry of Ecology and Sustainable Development)**, which would be responsible, *inter alia,* for all the various aspects of the identification, investigation, archiving, study, management, preservation and sustainable utilisation of ecosystems in all sectors of the economy.

In June 2013, The *Maurice Ile Durable* (MID) Policy and Strategy Action Plan was formally presented to the nation. The Aim of the MID is to steer the development pathway for the Republic of Mauritius in a sustainable direction. The plan outlines four priority programmes within the country, namely energy conservation and renewables; cleaner, greener and pollution free Mauritius; green economy; and ocean economy. A specialised MID fund has been set up by the government to help in projects regarding a sustainable Mauritius. They include the preservation and better handling of natural resources, exploitation of natural renewable energy sources, schemes to reduce overall energy consumption on the island and encourage self-made energy alternatives, programmes to protect the environment through recycling of waste, conducting research with regards to renewable energy technologies, energy management programmes both locally and with foreign partners and sensitization campaigns regarding the wise use of energy and renewable energies.

In relation to Ocean Economy (one of the pillars of the MID) the Government has recognised the importance of formulating a national policy on the sustainable management and use of ocean and marine resources. It also identifies, as a high priority, the need to strengthen and encourage Science-Based Governance by promoting a culture of knowledge, education, awareness and accountability through the use of best science and data for effective and informed decision-making. Such information should be made accessible and understood by all stakeholders. Traditional and indigenous knowledge shall also be given due recognition and be fully utilised.

Mauritius also recognises the importance of adopting an ecosystem-based approach to fisheries and the need to develop clear strategies for ecosystem-based management of seamounts

Mozambique

Mozambique has established an ICM Committee and is operating at National Level. The CTIGC (Inter-Institutional technical committee for coastal management) advises the Technical Committee of CONDES (The National Council for Sustainable Development). The technical Committee in turn reports directly to CONDES itself, which is chaired by the Prime Minister and composed of the relevant Sectoral Ministers. CTIGC (ICM) provides advice on matters related to conservation & development of the Coastal Zone and ICZM framework development.

With regard to ICZM, the Environmental legislative framework can be considered adequate mainly in relation to pollution and conservation aspects, however, national strategies and/or policies related to integrated coastal zone management (the most important developing and conflicting area within the country) are not currently considered to be adequate. This aspect does need urgent attention. There are negotiations underway regarding trans-frontier conservation and management areas with Mozambique's neighbours.

There is an urgency for establishing the maritime borders, with Comoros, France (Mayotte and Europe), Madagascar and South Africa in order to minimize existing and (mainly) potential conflicts related to economic use of coastal and marine resources, such as fisheries and, very recently, hydrocarbon exploration and exploitation.

Seychelles – The Blue Economy and the Marine Spatial Planning process

Seychelles is undertaking a Marine Spatial Planning (MSP) Initiative. The MSP Initiative is a Government-led process, with planning and facilitation of the Initiative managed by a partnership between The Nature Conservancy (TNC) and the Government of Seychelles/UNDP/GEF Programme Coordinating Unit for the "Protected Area Management through NGO Modalities" project. The process is focused on planning for and management of the sustainable and long-term use and health of the Seychelles Exclusive Economic Zone, a marine area covering 1,374,000km^2 and encompassing the Seychelles archipelago of 115 islands. The MSP Initiative aims at an integrated, multi-sector approach and will include input from the major sectors of the Seychelles which use the country's marine space such as fishing, tourism, conservation and petroleum development in order to develop a holistic climate-smart multi-use plan, integrating the new challenges created by climate change into planning and management efforts.

Seychelles also has an impressive record of supporting the 'Blue Economy' approach. In a recent Keynote Address to the National Stakeholder Forum on the Blue Economy, President James Michel stated that "No discourse today relating to Small Island Developing States, to ocean governance, to management and exploitation of marine resources, is possible without mention of the Blue Economy". As a small developing island nation, the Seychelles' economic growth (which is heavily based on tourism and tuna-fishing) is centred on its waters. The country is leading calls for a more inclusive global development agenda which emphasizes the economic potential of the seas while protecting maritime resources. As security off the east coast of Africa improves, the Seychelles government is supporting the development of a 'blue economy', using the Indian Ocean's resources for inclusive growth[1].

Somalia

[1] See more at: http://www.chathamhouse.org/event/blue-economy-seychelles%E2%80%99-vision-sustainable-development-indian-ocean#sthash.YHwJD7f8.dpuf

Although Somalia has not established an ICM Committee, a possible composition has been considered and would consist of a number of sectoral ministries ranging from fisheries through transport and defence.

South Africa

In South Africa, the Integrated Coastal Management Act 24 of 2008 (the 'ICM' Act) replaced the out-dated and outmoded Sea Shore Act of 1935. The ICM Act provides for a plethora of government agencies ranging from national, to provincial, to local spheres of government to be in one way or another involved in, developing or managing the coastal area. The Department of Water Affairs and Environment (DWE) administers the Integrated Coastal Management Act as well as the National Environmental Management Act 108 of 1998.

The Coastal Management Act requires for each of the three spheres of government to develop coastal plans for their respective spheres. The Act further requires the Minister of Water and Environment to adopt a national coastal management programme which is a policy directive on integrated coastal management providing for an integrated, coordinated and uniform approach to coastal management, including the use of coastal resources. Similarly, at the provincial level the MEC of each of the four coastal provinces are required to adopt a provincial coastal management programme. Its contents must include a vision for the management of the coastal zone in the province, including the use of coastal resources. Finally, at the local level of government, coastal municipalities must prepare and adopt municipal coastal management programmes. These municipal coastal management programmes must include "a vision for the management of the coastal zone within the jurisdiction of the municipality including sustainable use of coastal resources", coastal management objectives, priorities and strategies, performance indicators as well as other stipulated matters.

In 2012, the South African government introduced a policy on small-scale fisheries. This policy aims to provide rights to small-scale fishing communities and to ensure that they have equal access to marine resources. This was undertaken specifically in recognition of the fact that this sector was excluded in any such discussions and policies in the past. The policy introduces new way to approach the small-scale fishing sector and specifically focuses on human rights, gender and development issues.

In May 2014, the Government of South Africa published its White Paper on National Environmental Management of the Ocean. This White Paper sets out an approach whereby South Africa can, in the short term, increasingly accommodate coordinated sectoral management within its existing statutory framework. The White Paper envisages the simultaneous preparation of ocean environmental legislation aimed at improving the regulation and coordination of the management and development of South Africa's ocean. Six ocean governance objectives have been identified namely: 1. Coordinating and supporting the implementation of the relevant statutory and institutional frameworks; 2. Establishing mechanisms for sectoral data collection and sharing; 3. Creating and maintaining a shared national knowledge base on the human activities, status and functioning of the ocean; 4. Establishing integrated ocean sustainable development and conservation ocean plans by the undertaking of strategic environmental impact assessments and the use of spatial planning tools; 5. Enhancing national human and technical capacity to better understand and utilise ocean resources and opportunities; and 6. Pursuing regional and international cooperation and governance mechanisms.

Also in 2014, South Africa launched Operation Phakisa. This focuses on unlocking the economic potential of South Africa's oceans (estimated to be able to contribute the equivalent of

US$17.7 Billion to GDP by 2033). Operation Phakisa is a results-driven approach, involving setting clear plans and targets, on-going monitoring of progress and making the results public. It focuses on bringing key stakeholders from the public and private sectors, academia and civil society organisations together to collaborate in detailed problem analysis, priority setting, intervention planning and delivery.

Tanzania

The Tanzania National Integrated Coastal Environmental Management Strategy (NICEMS) was launched in 2003. NSC-ICM provides policy oversight and guidance on the overall vision of the ICM activities in the country. An Integrated Coastal Management Team serves as the backbone of a national ICM network to practitioners (local and national). NSC-ICM was formally funded by Tanzania Coastal Management Partnership (TCMP). Recently, the strategy has been under minor review, and there is a need to support and speedup strategy review process at national level.

Tanzania is a participating country in the South West Indian Ocean Fisheries Governance and Shared growth project (SWIOFish). The Project development objective is to improve the management effectiveness of selected priority fisheries at regional, national and community level. The project would continue to support regional integration around fisheries management, while expanding the approach beyond research to strengthen sector governance and promote shared growth through harnessing the value of coastal and marine fisheries to national economies. The Project development objective is to improve the management effectiveness of selected priority fisheries at regional, national and community level. The project would continue to support regional integration around fisheries management, while expanding the approach beyond research to strengthen sector governance and promote shared growth through harnessing the value of coastal and marine fisheries to national economies[2].

Tanzania is currently negotiating with Mozambique, Comoros and Seychelles regarding the delineation of their common EEZ boundary.

1.4. Summary of Challenges to be Addressed

Challenges to sustaining and developing coastal livelihoods and opportunities vary between countries and sectors. One of the common challenges is revenue leakage. Only small proportions of the revenues received remain in the countries and even smaller proportions trickle down to communities. This problem is particularly serious in the tourism sector. Weak infrastructure and facilities is another problem constraining development in, for example, tourism, small-scale fisheries, mariculture and ports and coastal transport. It is generally linked to another common problem which is a lack of access to finance and capital for development. This ranges from lack of access to credit for small-scale fishers to the problems associated with insufficient development capital for ports and transport. It is a problem that impacts on the fisheries, mariculture, and ports and coastal transport sectors amongst others. Environmental degradation and environmental impacts are also important constraints across all sectors. Over-exploitation of resources is common in fisheries, agriculture and forestry and is frequently linked to poverty and over-dependence on the resources. Alternative livelihoods and livelihood diversification are urgently required to ameliorate these problems. The environmental impacts of

[2] http://www.mifugouvuvi.go.tz/south-west-indian-ocean-fisheries-governance-and-shared-growth-swiofish-project/

tourism, fisheries, mariculture, forestry and agriculture, energy and coastal mining are already a serious concern and development of these sectors must be done in a way that minimises such impacts and does not cause irreversible damage. Limited and often inadequate human capacity is also common to nearly all of the sectors and encompasses, for example, inadequate governance capacity, research capacity and capacity for fulfilling financial, operational and human resource functions. Security concerns, political instability, weak service delivery, conflicts between sectors and centralised control and over-regulation were also identified as problems in some sectors and countries.

Notwithstanding the challenges, there are many examples of progress being made. For example, ecotourism in Kenya is providing incentives to protect the environment and enables the inclusion and employment of local communities in the sector. In Mauritius and Seychelles, the need to support small-scale fishers through soft-term loans and duty concessions from the government has been recognised, while in Comoros the government is helping to support development in the small-scale sector with revenues gained from the large-scale industrial fisheries. Also in fisheries, progress towards decentralized and participatory management is being made in Mozambique, Tanzania and South Africa, for example, while Kenya, Tanzania and South Africa are making progress in promotion of participatory management of forests. Good examples of responsible development can be seen in the mariculture sector where prawn farming in Madagascar and abalone farming in South Africa could serve as models for the region. Examples of promotion of alternative sources of income can be seen in the development of bee keeping, honey production and tree nursery management as means of reducing the pressure on coastal resources in Tanzania. Pottery, horticulture, and small-scale cashew nut and coconut collection are fulfilling the same role in Mozambique. Positive engagement in local development by the private sector can be found in both the energy and coastal mining sectors. Oil and gas companies have engaged in wide variety of social development activities in Madagascar and all the mainland countries such as construction of community clinics, rehabilitation of roads and community buildings, and support to cyclone-affected populations. Similar contributions have been made by companies engaged in coastal mining.

A comprehensive cost-benefit analysis carried out by the ASCLME Project identified that the total contribution from the coastal and marine resources of the WIO to the GDP of the participating countries in 2010 came to almost US$22.4 billion a year. This is particularly significant when one takes into account that the coastal communities which depend on these resources are generally poorer than the more urban populations. The fisheries in the region were estimated to support almost 2.7 million people directly and generated wages of about US$366 million per year. While the landed value of catch from the ASCLME is about US$475 million a year, the total economic impact is more than twice this figure, estimated at about US$1,150 million a year (Sumaila *et al.* 2012). The study estimated that effective management of the fisheries and rebuilding of stocks of the ASCLME could result in an additional US$221 million in annual economic rent. Most of the economic benefits from the coastal and marine resources of the ASCLME remain in the countries of the region.

Deterioration in the quality of the coastal waters of the ASCLME region is a significant threat to public health and to the well-being of the living marine resources and ecosystems. Sources of pollution include land-based, marine and maritime related activities. The land-based activities were addressed in the separate WIO-LaB project while the ASCLME TDA focussed on marine sources including dumping, shipping, ports, and oil and gas activities. Addressing the threats will require an effective legal regime covering national, regional and international levels. The majority of ASCLME countries are parties to most of the relevant international conventions but a

number of gaps and inconsistencies need to be addressed, especially in the national legal and institutional frameworks. Examples include: overlapping jurisdictions and a lack of communication across sectors; failure to include the provisions of international conventions in domestic laws and regulations; weak implementation; surveillance activities split amongst various institutions; and some unresolved maritime borders between some of the countries. There is also a need to introduce or strengthen legislation on dredging, environmental impacts of offshore oil and gas activities, liability and compensation related to offshore activities, and monitoring and standards. Considerable progress in meeting these needs can be achieved through collaborating with existing programmes and organisational partners that are already active in the region.

1.5. Barriers to LME Based-Management

Governance Approaches

The styles of marine and coastal governance vary from country to country, reflecting their individual histories and cultural backgrounds. The styles have also been influenced by relevant regional and international agreements. The differences between countries occur in their systems of governmental organisation, processes and priorities, the levels of economic development, scientific capacity and incorporation of science into policy processes, patterns of social organisation, culture and values, and in their political relations. Similarly, there are differences in the governance of the major sectors related to sustainable use of marine and coastal resources. Inadequacies and gaps exist in the application of the existing legislation to ecosystem based management, also varying from country to country. A number of regional agreements and bodies are in place in the ASCLME region including, for example, the Nairobi Convention (Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region) and the South Western Indian Ocean Fisheries Commission (SWIOFC). There are also the wider regional agreements such as the Indian Ocean Tuna Commission (IOTC) and several Regional Economic Commissions and the African Union's New Economic Partnership for African Development (NEPAD) also play a role in the region. The countries are also parties to the most important relevant international agreements including the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Notwithstanding this existing framework, there is currently no single mechanism that could implement an integrated, intersectoral, region-wide approach to the governance of marine and coastal resources in the ASCLME region, but the countries have agreed that one is needed.

TDA Findings

In the absence of an integrated regional approach, the countries are not obtaining the optimal benefits from the marine and coastal resources. The TDA examined four regional ecosystem based governance options to fulfil this role. They were: i) business as usual; ii) enhancement of an existing institution with new powers; iii) establishment of a new institution; and iv) a structured, collaborative agreement mechanism. After analysis of the options and formal discussion at the regional level, it has been concluded that a collaborative mechanism and management agreement(s) between the various regional responsible bodies (including the Nairobi Convention, Indian Ocean Commission, South West Indian Ocean Fisheries Commission, Indian Ocean Tuna Commission, and the countries would be the most appropriate for the ASCLME region. A number of partners in the UNDP GEF ASCLME project created a "Western Indian Ocean Sustainable Ecosystem Alliance". This was a partnership wherein the

'Alliance' members agreed to provide support and assistance by way of skills, expertise, capacity development and hard resources in line with some of the specific priority requirements for both the TDA development and the subsequent SAP implementation process. There is a strong willingness on the part of these partners to continue this "alliance' process during the SAPPHIRE project and beyond. This regional partnership arrangement of the Alliance could also be valuably replicated at the national level. The further development of the Alliance is one of the recommendations from the TDA for future action.

The very detailed and comprehensive TDA presents the agreed priorities for the main transboundary areas of concern, together with a regional summary of proximal and root causes. In arriving at these priority transboundary issues, the TDA development teams at the national and regional levels agreed to include land-based priorities as well, even though these had been covered by the UNEP GEF WIOLaB Project through their TDA development process. It was felt that to exclude them where the countries saw them as a priority would weaken the overall LME TDA process and, in any event, it would be useful to confirm these between the two exercises/projects. Through a thorough process of validation and prioritisation at national and regional levels, the 21 top priority transboundary issues for inclusion in the Strategic Action Programme (SAP) were identified. These issues were categorised into four Main Areas of Concern (MACs):

MAC 01: Water Quality Degradation
MAC 02: Habitat and Community Modification
MAC 03: Declines in Living Marine Resources
MAC 04: Unpredictable Environmental Variability and Extreme Events

Examples from the 21 issues include: 1.1 Alteration of natural river flow and changes in freshwater input and sediment load and 1.3.5 Solid wastes/marine debris from shipping and land-based-sources (both from MAC01); 2.1.Shoreline change, due to modification, land reclamation and coastal erosion and 2.2.6 Disturbance, damage and loss of mangrove habitats (from MAC02); 3.2.2 Decline in populations of large pelagics and 3.4 Excessive bycatch and discards (from MAC03); and 4.1 Climate hazards and extreme weather events and 4.2 Sea level change (from MAC04). Annex 1 gives a further breakdown of these findings and the challenges and objectives for the sustainability of ecosystem quality as captured in the Strategic Action Programme.

Two complementary analyses were undertaken of the priority issues: the construction of the impact chains and causal chains. Impact chain analysis includes identification of the environmental impacts arising from each issue and the impacts on the ecosystem services provided. Ecosystem services are categorised as Provision Services, Cultural and Amenity Services, Supporting / Habitat Services and Regulating Services. The socio-economic impacts of the issue were also examined, covering consequences such as reductions in opportunities for tourism and leisure; loss of fisheries resources and revenue; loss of income generating livelihoods from tourism; increased unemployment; threats to public health; reduction of foreign income and revenues; loss of national revenues; reduced resilience; increasing poverty; and others.

Construction of causal chains required identification of the direct or immediate causes of each issue, the sectors and resource use practices that contributed to the direct causes, the underlying legal, social, economic and political causes and then finally the root causes. The nine common root causes identified through the analyses were:

- Inappropriate governance arising from problems such as inappropriate and outdated legislation, deficiencies in enforcement and compliance, and lack of management and institutional capacity;
- Economic drivers including high international and local market demand for resources, inappropriate subsidies and incentives, and lack of alternative opportunities;
- Inadequate financial resources resulting from the low GDPs of most countries in the region as well as inadequate mechanisms for leveraging additional finances;
- Inadequate knowledge and awareness arising from factors such as lack of or inadequate regulations, lack of legal expertise, limited or lack of education, and others;
- Cultural traditions that can stem from a legacy of decades of poor environmental management in some countries, as well as traditional practices that may no longer be sustainable;
- Population pressure and demographics as a result of population growth over the last century exacerbated by large scale migration to the coast driven by a number of pressures;
- Poverty and inequality, which can lead to an increased dependency on the exploitation of natural resources and subsistence living;
- Climate change and natural processes;
- Personal attitudes such as a culture of entitlement in some fisher communities and a tendency to shift blame to other stakeholders. Bribery, greed and corruption were also identified as problems.

1.6. Delivery from the ASCLME Project toward a Strategic Action Programme Implementation Process

ASCLME Achievements

The ASCLME Project was given a Final Evaluation in early 2013. The conclusions from the Evaluation are provided below in the Ratings for the project. Overall, the rating for the project was Satisfactory, the second highest rating possible (two out of six possible). The two top ratings of highly satisfactory, were for Overall Quality of Project Implementation/Execution and Overall Quality of Project Outcomes. This rating was provided because of the strong dedication and work ethic of the PMU staff (one interviewee stated that the PMU coordination was “as good as any PMU could be, with excellent leadership and a good team”). It was also provided because the ASCLME Project, as written, was a nearly impossible project to carry out as it was too complex and all-encompassing for the budget assigned to it. Despite this, the countries, assisted by the PMU, were able to accomplish nearly all of the tasks; and to exceed the expectations in some cases (two examples: the innovation of national Marine Ecosystem Diagnostic Analyses as inputs to the TDA; a second, budget allocated to ship’s time was 25% under what was allocated, in spite of having 31% more ship days spent in baseline data collection activities). Although some areas of project implementation were less than satisfactory (the breadth of Community Engagement and the Persistent Organic Pollutants activity), in general all project outcomes were achieved in spite of a restrictive budget.

Table 1: Rating from the ASCLME Terminal Evaluation:
The ratings for the ASCLME Project were as follows:

Rating Project Performance		
Criteria	**Comments**	
monitoring and Evaluation: Highly Satisfactory (6), Satisfactory (5) Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), Highly Unsatisfactory (1)		
Overall quality of M&E	(rate 6 pt. scale)	5
M&E design at project start up	(rate 6 pt. scale)	5
M&E Plan Implementation	(rate 6 pt. scale)	5
IA & EA Execution: Highly Satisfactory (6), Satisfactory (5) Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), Highly Unsatisfactory (1)		
Overall Quality of Project Implementation/Execution	(rate 6 pt. scale)	6
Implementing Agency Execution	(rate 6 pt. scale)	5
Executing Agency Execution	(rate 6 pt. scale)	4
Outcomes Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU) Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall Quality of Project Outcomes	(rate 6 pt. scale)	6
Relevance: relevant (R) or not relevant (NR)	(rate 2pt. scale)	2
Effectiveness	(rate 6 pt. scale)	5
Efficiency	(rate 6 pt. scale)	5
Sustainability: Likely (4); Moderately Likely (3); Moderately Unlikely (2); Unlikely (1).		
Likelihood of Sustainable Future	(rate 4pt. scale)	3
Financial resources	(rate 4pt. scale)	3
Socio-economic	(rate 4pt. scale)	3
Institutional framework and governance	(rate 4pt. scale)	3
Environmental	(rate 4pt. scale)	3
Impact: Significant (3), Minimal (2), Negligible (1)		
Environmental Status Improvement	(rate 3 pt. scale)	1
Environmental Stress Reduction	(rate 3 pt. scale)	2
Progress towards stress/status change	(rate 3 pt. scale)	2
Overall Project results	(rate 6 pt. scale)	5

Table 1: Rating from the ASCLME Terminal Evaluation (continued)**:**

Ratings Scales		
ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	**Sustainability ratings:**	**relevance ratings**
6: Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency 5: Satisfactory (S): There were only minor shortcomings 4: Moderately Satisfactory (MS): there were moderate shortcomings 3. Moderately Unsatisfactory (MU): the project had significant shortcomings 2. Unsatisfactory (U): there were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency 1. Highly Unsatisfactory (HU): The project had severe shortcomings	4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	2. Relevant (R) 1.. Not relevant (NR) Impact Ratings: 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A		

Corrective actions are identified in the final section of the Terminal Evaluation, to guide GEF, IAs, and EAs in designing, implementing, executing, and monitoring/evaluating complex IW projects that include multiple countries (8 originally in this case, and expanded to 9 in the Inception Phase). Though not the largest IW foundational project (the Caribbean LME apparently leads in this category), the stresses imposed by requisite interactions amongst the governments and the myriad of stakeholders puts a high premium on effective project management, including negotiation skills.

Follow-up actions are provided by the Terminal Evaluation for this project, including:

- The nine ASCLME countries need to approve the SAP at requisite level. Although approval at the Project Steering Committee Level has been obtained, approval at higher (ministerial) levels in each country are required. This will pave the way towards future GEF intervention.
- A follow-on GEF project focused on SAP implementation should be developed by UNDP and approved by the GEF IW. There is currently national ownership of the LME concept for the region, but in this human resource challenged region, the leadership of GEF towards developing sustainable policy and governance for the three LMEs (Agulhas Current, Somali Current, and Mascarene Plateau) is crucial and momentum should not be lost. As stated by an interviewee, no efforts prior to the ASCLME and SWIOFP projects have been as effective in creating a regional consensus on priority marine problems in the region, and have resulted in such close cooperation amongst the nine nations involved (plus France, as a non-GEF eligible country).

Future Directions are recommended:

The next GEF-funded activity should focus on SAP implementation. The objectives of this SAP implementation could include: To deliver and execute the agreed management reforms and policy realignments for effective long-term ecosystem management in the Western Indian Ocean LMEs in line with an endorsed Strategic Action Programme.

For UNDP, the SAP implementation should focus on core strengths of UNDP, including components addressing:

- Executing Management and Policy Reforms through a Knowledge-Based Governance Mechanism
- Secure improved Stress Reduction within the LMEs through Community empowerment in the SAP Management Process
- Deliver Private Sector/Industry Commitment to and execution of Stress Reduction activities and transformations in management practices
- Negotiating and Executing Effective Management Mechanisms for Extended Continental Shelf and High Seas areas within the LMEs
- Realignments in Institutional Arrangements for stronger coordination and partnerships

Specific recommendations included:

- The project should move into the SAP implementation under GEF support, once the nine countries formally approve the SAP, and once UNDP has a PIF approved and the Project Document approved. These steps should take place quickly so momentum is not lost.
- Until a follow-on GEF project is approved and funded, bridge financing should be found to allow the PMU to continue to operate until the next project is able to begin.

Finally, lessons learned were outlined:

- GEF and the IAs should take to restrict projects to reasonably achievable numbers of outputs and activities. Although there is often a temptation to try and achieve as much as possible, care must be taken to limit the outputs and activities to a level that is achievable with the resources allocated.
- Pre-selected contracting has helped lead to uncertainties in this project, and therefore to insufficient overall achievement (in the case of Community engagement). Pre-selection of contractors must be done with forethought, realizing that such pre-approvals may hinder rather than enhance project success. UNDP/GEF has verified that pre-selection is no longer allowed under UNDP/GEF IW projects.
- The Project Steering Committee should be comprised of high level policy officials. The appropriate level of membership in the PSC must be clear in the Project Document, which will then be signed by all countries.
- Executing Agency backstopping should pay particular attention to the Financial Administrative staff, as much of the financial reporting has devolved to this level in the Project. Lacking effective financial administration, planning and implementation by the Project Manager is seriously hampered.
- The private sector needs to be a key player even in foundational capacity building activities of the GEF, in order to secure a higher probability for long-term sustainability of interventions. Because of the diverse nature of the ocean business community, and the challenges for getting companies involved in complex non-commercial relationships and activities, there is a need for an “enabling” organization to provide a bridge, portal and coordination in engaging the ocean industries.
- Project management for highly complex, multi-national (9) projects characteristic of IW interventions must be backed by sufficient resources to allow interaction and close negotiations with all participating countries at high governmental levels. The artificial limitation by GEF of 5% of budget spent on Project Management is unrealistic, and does

not reflect the actual requirements, particularly in a large (area-wise and number of countries) project such as the ASCLME.

Some of the very tangible deliveries that were highlighted and applauded by the participating countries and partners included:

Offshore cruises and Monitoring Programmes
Together with partners like the SWIOF Project, the EAF Nansen Project, NOAA, NIOZ, IUCN and the IRD, the ASCLME Project has undertaken or co-funded over 50 offshore expeditions, to undertake process studies and to deploy moorings and sensors for the long-term monitoring of the LMEs. Over 100 scientists from the region have been trained aboard these cruises, on ecosystem monitoring and assessment)

Nearshore and coastal monitoring programmes
Countries have developed their own inshore monitoring plans within the agreed regional framework of inshore and offshore monitoring. Equipment has been provided to countries and monitoring activities have been initiated.

National Marine Ecosystem Diagnostic Analyses
The ASCLME Project supported each participating country to develop an updated National Marine Ecosystem Diagnostic Analysis, which gave an overview of the status of the coastal and marine ecosystem of each country, and formed the basis for the Transboundary Diagnostic Analysis.

National and Regional Policy & Governance
National and Regional Policy and Governance assessments were carried out in support of the development of the Strategic Action Programme

Regional 'Cost-Benefit of the Ecosystem Approach' Assessment
Sub-regional and regional cost-benefit analyses were carried out to investigate the costs and benefits of a business-as-usual-approach to management versus an ecosystem approach.

Community engagement via a distance learning approach (DLIST)
Active demonstrations were made in each country of the DLIST approach and examples of potential community engagement in the LME management process (including local economic development plans)

Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA)
A Western Indian Ocean Sustainable Ecosystem Alliance was created to facilitate the ongoing cooperation between the ASCLME Project and other projects and partners working in the region – the Alliance is expected to continue the mutually beneficial partnership activities in support of the implementation of the SAP. WIOSEA includes over 30 signed Agreements, MOUs and Aides-Memoire as well as informal collaborative arrangements.

Regional Platform for Capacity Building and Training
As a result of recommendations from the Capacity Development task team, a regional partnership should be established in support of the capacity development goals necessary for sustainable SAP implementation.

Science-based Governance

Mechanisms for Science-Based Governance have been developed and agreed by countries, for translating knowledge into management and policy through the weight-of-evidence and dynamic management approach.

Recent and growing engagement with the private sector
A partnership has been established with a number of private sector and industry representatives in order to facilitate the involvement of the private sector into the implementation of the SAP. The World Ocean Council (WOC) has been the lead organization facilitating and committing to engaging the private sector in the ASCLME and the SAP implementation.

1.7. SAP Implementation and Long-Term Vision

In order to address the concerns identified in the TDA, the countries of the region have agreed on a Strategic Action Programme which was finalised by the Policy Advisory Committee. The SAP picks up on the Main Areas of Concern as identified through the TDA process (i.e. Water Quality Degradation; Habitat and Community Modification; Declines in Living Marine Resources; and Unpredictable Environmental Variability and Extreme Events). It then proposes some specific cooperative actions that should be taken to try and address these concerns.

These include:

Ecosystem Assessment and Monitoring: Having captured a baseline overview of the LMEs, it is essential within a SAP to A. monitoring that baseline (through selected indicators) in order to identify changes and alterations within the system and the various biogeochemical and physical interactions and B. to continue to fill in the 'gaps' in the baseline so as to improve understanding and coverage. Ecosystem monitoring is an essential component also of the next action.

Science Based-Governance and Adaptive Management: Using knowledge and scientific date from the Ecosystem Monitoring (including socioeconomic inputs and community welfare indicators), develop a more effective, fast-track process that can build on the Precautionary Approach and start moving toward a Weight-of Evidence approach that can identify trends through a comprehensive peer review process, even in the absence of high-level confidence limits (i.e. > 95%). The evidence and conclusions from these trends can then be used to provide management guidelines and policy scenarios for consideration by national and regional decisions-makers (ensuring that these are balanced against other national and regional priorities such as economy, health, education, food security, etc.).

Community Engagement and Stakeholder Involvement: This will aim for a more inclusive and comprehensive engagement in the implementation of the SAP and overall LME management by A. broadening the scope of community involvement and B. Enhancing the input from, and engagement with the private sector and maritime industry. Broad, regional scale management processes rarely reach down to localised levels and, *vice versa*, local management approaches (which can be very effective at the community level) are rarely included in national management strategies let alone regional ones. Actions at the local level of communities and localised artisanal fishery areas (often defined by small biological communities and habitats) will be piloted and incorporated into municipal, provincial and finally national approaches to SAP implementation and national action plans (particularly linked to the MEDAs). Where appropriate, the possibility for linkages and collaboration with the Small Grants Programme will be considered. The private sector is also taking a keen interest in engagement in LME management and SAP implementation and the ASCLME project has already built a

strong partnership with the private sector, especially with and through the WOC which can be strengthened and enhanced through this new SAP implementation initiative. One example of a possible partnership could aim to deliver an ocean-industry initiative for data capture, processing, analysis and quality control which might fit in very well alongside both the Ecosystem Assessment and monitoring and the Science-Based Governance and Adaptive Management Components in delivering much –needed data, assisting in the analysis of this data, and using the results and conclusions to refine company policies and to develop and adopt self-regulatory approaches.

Capacity Building and Training: Across all of these Main Areas of Concern and various action requirements there is one common need, that of capacity development to sustain SAP implementation in all its facets and throughout all of its requisite activities. This was a strong outcome from the MEDA and TDA process and a priority focus from the countries. Capacity Building and Training needs to focus on the institutional level as much (if not more) as on the individuals. Effective capacity development needs to reside within sustainable bodies and institutions so that the movement or loss of an individual does not jeopardise the ability of that institution to carry out its functions.

An outcome of the regional Capacity Building and Training (CB&T) activity of the ASCLME Project was the need to identify a suitable body to coordinate and harmonise regional CB&T actions and identify mechanisms to support such activities.

The Proposed GEF Intervention through SAPPHIRE: The proposed new intervention, including the GEF Increment of this Strategic Action Programme Implementation Project, will provide the vehicle for coordinating and executing reforms at the institutional level and in management practices as well as improving and strengthening skill-sets and understanding of ocean-climate interactions and predicted changes.

GEF has focused its investment in the ASCLME Project on foundational data capture to underpin a TDA and a SAP (on the principle that you cannot manage what you don't understand). During the ASCLME Project, GEF investment catalysed the partnership building among not only the participating countries but also with major actors active in the region, including research institutes from developed countries. The intended method of delivering the necessary cooperative actions to implement the proposed Strategic Action Programme would be through such an "Alliance' of partners, as described below.

The ASCLME Project has forged a number of strategic partnerships 'through Aides-Memoire 'which are collectively estimated to be worth at least US$12.8 million in co-funding. Formal partnerships have been developed with the United States National Oceanic and Atmospheric Administration (NOAA), the International Union for Conservation of Nature (IUCN) and Memoranda of Understanding have been signed with the WWF and the French research institute IRD. Equally strong partnerships have developed with the FAO's EAF-Nansen project and with the Royal Netherlands Marine Research Institute (NIOZ). Along with the MoU with NOAA, and close cooperation with the South African Department of Environmental Affairs (DEA), these latter partnerships have facilitated the establishment and extension of a sophisticated offshore oceanographic monitoring network which promises to form the basis of a long-term monitoring and early warning network as well as providing vital *in situ* long term oceanographic data. It is intended that these partnerships will be sustained and further strengthened through the aforementioned Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA) which will support the countries in conducting vital long-term monitoring and

translating the results into adaptive management guidelines and effective governance processes, thereby ultimately informing and driving national and regional policies concerning the management of the region's Large Marine Ecosystems.

At the heart of the WIOSEA concept is the provision of credible science-based management and policy information, supported by regional and international earth observation. WIOSEA effectively represents a collaborative body of partners established during the course of ASCLME and SWIOF Project activities through mutual agreement and interest. Currently, these partnerships support cruises and offshore surveys, nearshore surveys, mooring deployment and process studies as well as data analysis and modelling. This 'Alliance' approach was initially proposed at a high-level policy meeting of the Western Indian Ocean countries participating in ASCLME, SWIOFP and WIO-LaB along with a number of active regional and global agencies and funders. The countries and their partner agencies endorsed "the need for developing and implementing a Western Indian Ocean Sustainable Ecosystem Alliance based on the principles of ecosystem-based management, which will ensure the efforts and inputs of all stakeholders are captured and evolved into an effective regional management and governance system for the WIO LMEs". Since then, the Alliance has been discussed and supported at a number of regional scientific and policy level meetings, and at a number of international level platforms particularly in relation to the need to capture high seas management issues within the LME governance mechanisms. The Alliance is not an institutional arrangement or a governance structure but represents a scientific and technical collaboration of experts and specialised bodies that can provide agreed support to the region, particularly in the context of monitoring, data analysis and interpretation, advisory functions in relation to potential management options, etc.

GEF is requested to take advantage of this successful investment process and to focus on supporting the proposed new policy reforms and management practices such as the Knowledge-Based Management mechanisms, building the WIOSEA partnerships and developing innovative new management practices and governance reforms related to ABNJ. It is further requested to support a few selected priority transboundary demos to improve ocean governance leading to stress reduction to the WIO LMEs.

The large-scale monitoring processes must continue for any of this to be effective and it is necessary to complement the GEF incremental investment in SAP implementation with a significant co-funding investment for long-term sustainability (you cannot adapt to or prepare for change if you cannot identify and measure that change). It will also consolidate work already done on engaging other stakeholders (especially the communities and the private sector) into the management process through real actions and transformation of practices. This incremental step forward provided by GEF will therefore be supported by other partners through a much larger foundation of data capture, monitoring and research essential to guide and drive such management processes and to identify changes and react to them through adaptive management decisions.

The countries have agreed to jointly manage the waters that fall within the western Indian Ocean LMEs. Some of these waters fall beyond the EEZs and it is recognised that special agreements and partnerships will need to be negotiated and adopted if such management of Contiguous Adjacent High Seas Areas is to prove to be effective and workable. There is a specific Component within SAPPHIRE (Component 4) which will aim to negotiate and evolve such partnership and Alliances. ASCLME was very successful in developing WIOSEA (the Western Indian Ocean Sustainable Ecosystems Alliance) which represents the early stages of a regional partnership to support SAP Implementation. This model has already been adopted by a number of other similar LME and International Waters initiatives, including the Sargasso Sea

Alliance, and promises to be a potential management mechanism for Areas beyond National Jurisdiction (ABNJ) within the ASCLME region.

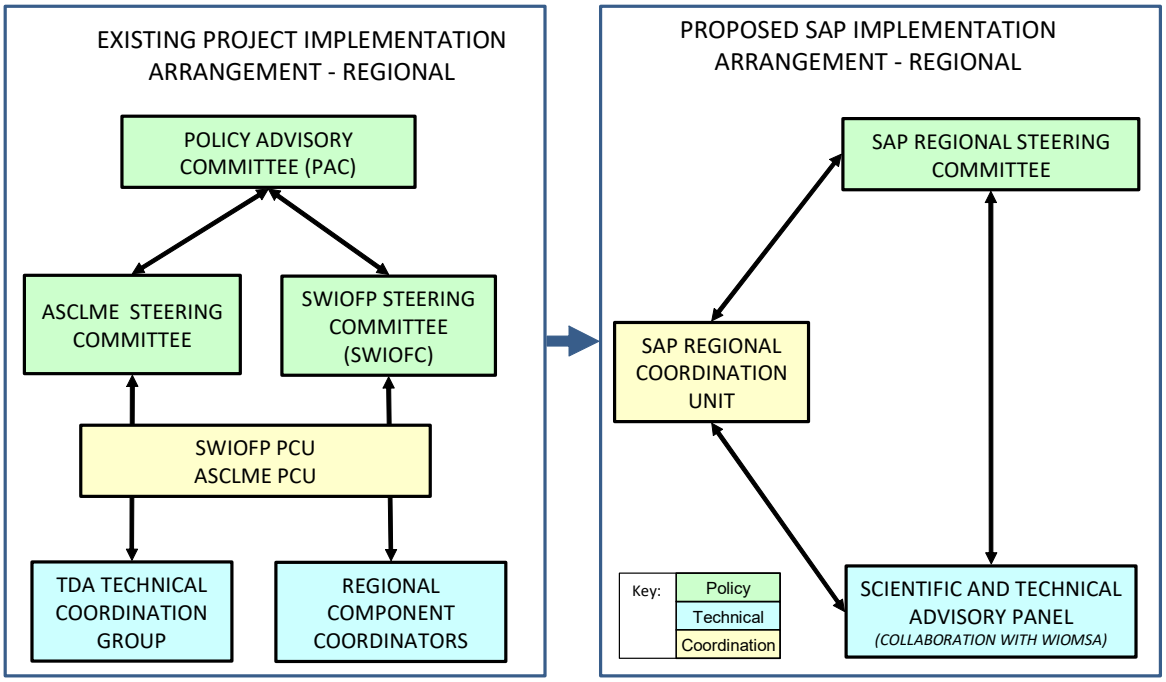
The long-term vision for the overall SAPPHIRE objective, along with its partners, is the adoption and/or strengthening of a sustainable management mechanism (including political, institutional and financial sustainability) for the Large Marine Ecosystems of the western Indian Ocean. The actual governance strategy for this is outlined in the Strategic Action Programme that has been adopted by the countries. Ecosystem Quality Objectives have been identified for each of the Main Areas of Concern or MACs (as noted above), and cooperative actions have been agreed to address the MACs and to achieve the EQOs, thereby effectively implementing the SAP. The SAP then defines a Science-Based Governance and Adaptive Management Programme and associated road-map that would ensure delivery and incorporation of scientific knowledge into management and policy decisions.

Chapter Five of the ASCLME SAP directly addresses the Cooperative Mechanisms and Institutional Arrangements that would be tried, tested (and modified as necessary) in order to establish and sustain long-term management and governance of the LME resources. These mechanisms and arrangements would be developed in direct coordination and collaboration with the other two main initiatives aiming for LME SAP Implementation in the western Indian Ocean (i.e. the UNDP-GEF supported project on 'Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities' and the World Bank-GEF supported project on 'South West Indian Ocean Fisheries Governance and Shared Growth'. The ASCLME SAP itself is a product of both the previous ASCLME and SWIOF projects and, as such, defines the mechanisms and arrangements that would be developed and evolved both from the World Bank SWIOFish project and from the SAPPHIRE project, Chapter Five of the ASCLME SAP describes the intent to establish collaborative mechanism based on partnerships and alliances rather than trying to establish any new institutions (which would inevitably place additional administrative and financial constraints on the countries). This decision was made by the countries following a detailed Policy and Governance Assessment prior to development and adoption of the SAP. There was a firm and unanimous decision by the countries (as reflected in the Policy and Governance Assessment) that there is sufficient mandate and legal institutional basis existing already for SAP implementation. It was further agreed then that what was needed was A. strengthening and support for capacity development and delivery and B. stronger long-term collaboration and coordination to facilitate effective SAP implementation. Chapter Five further describes a working partnership arrangement at the scientific and technical level within and between the countries and other partners, and at the cooperative management level which would provide a platform for more efficient cross-sectoral coordination within and between the countries.

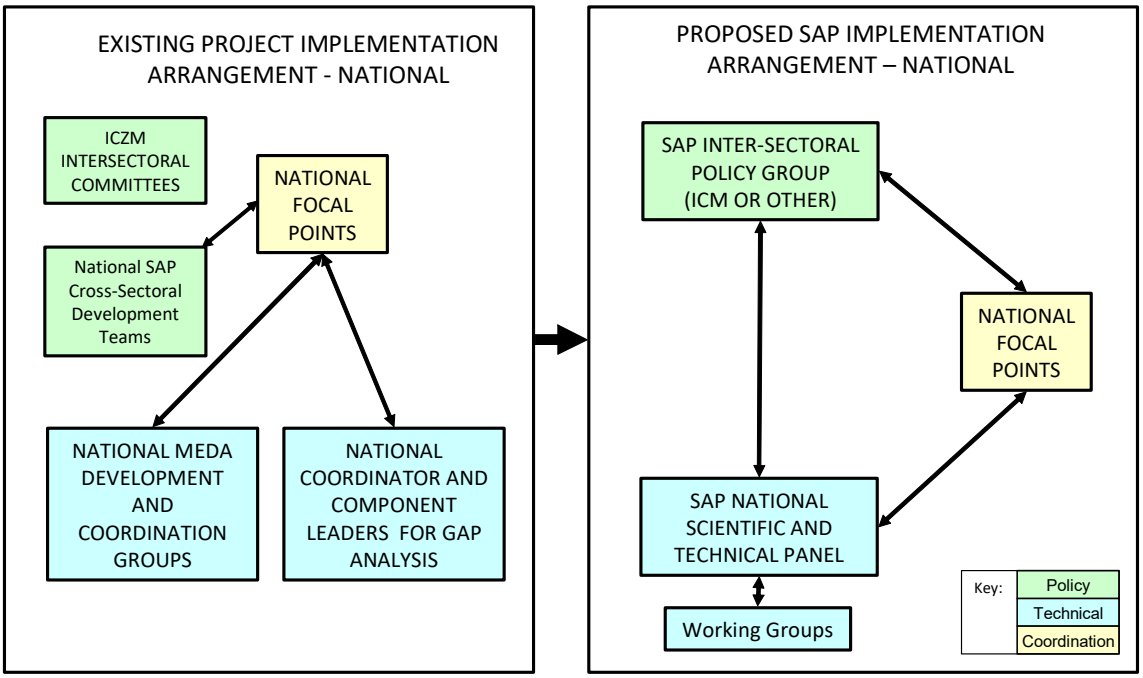
Figure 3: SAP Implementation Arrangements

The following diagrams are taken from the adopted SAP and show the relationship between the coordination and implementation structures used for the ASCLME/SWIOF Projects (left) and how these could now roll-over to become the future SAP Implementation arrangements (left) for the current project. This is shown for both the regional institutional arrangements (top) and national institutional arrangements (bottom).

REGIONAL ARRANGEMENTS

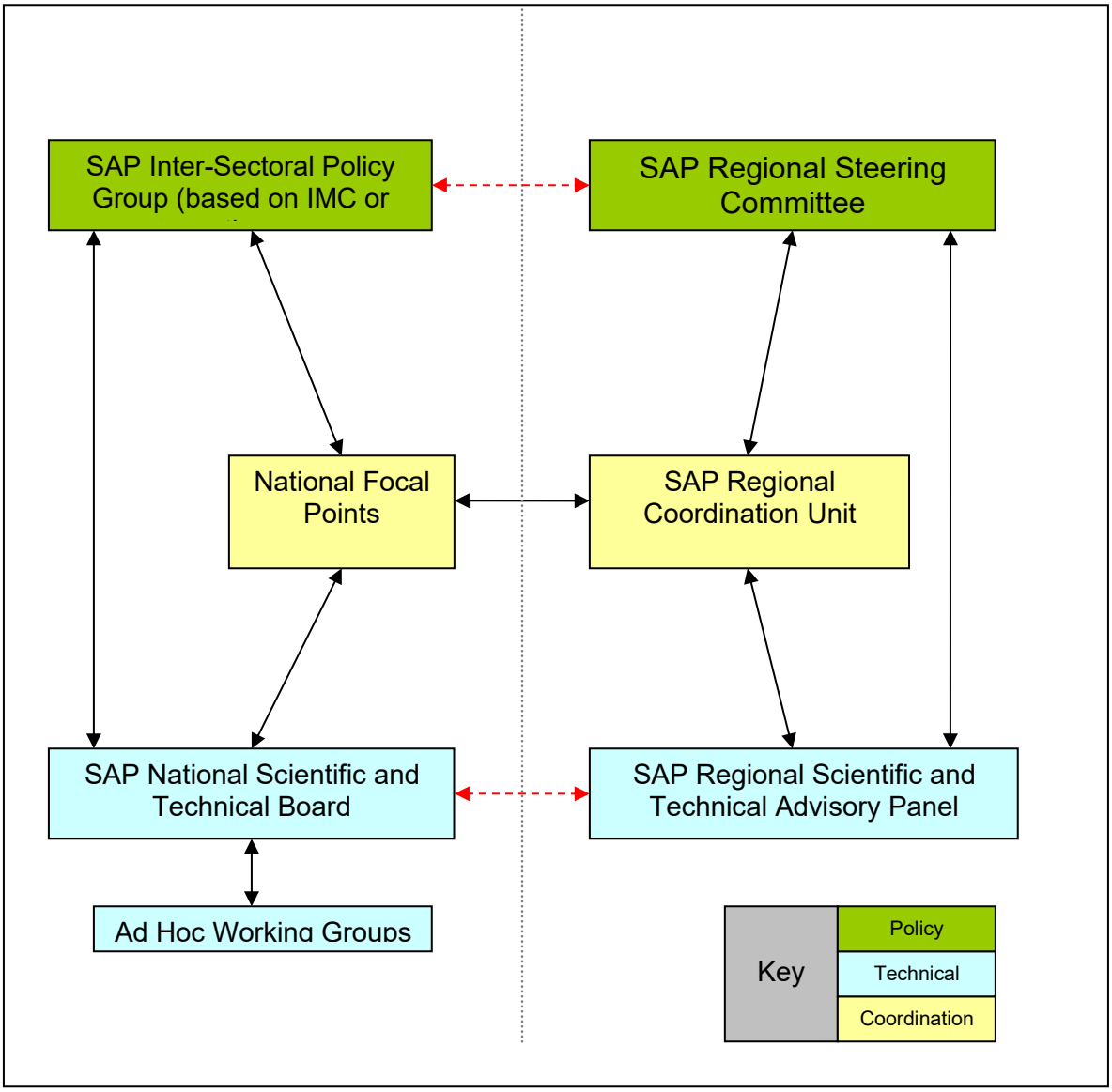


NATIONAL ARRANGEMENTS



The following figure takes the above explanation of the 'roll-over' from current Project Implementation into SAP Implementation to define a national/regional interactive

process and combines the national and regional level institutional arrangements into one simplified diagram showing the institutional linkages during SAP Implementation.



The day-to-day linkages between the regional and national SAP implementation decisions and actions would be through the Regional Coordination Unit. However, national policy level and technical level representation would sit on the regional level policy and technical committees.

Linkages between the SAPPHIRE Project and the UNEP-GEF supported project on 'Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities' have been discussed in detail between the two implementing agencies and the countries during project preparation. The UNEP WIOSAP project is expected to address largely land-based activities while the UNDP SAPPHIRE project is expected to focus on policy harmonisation and institutional reforms with a particular emphasis on the offshore waters. Specifically, there would be close collaboration between the UNEP-GEF project and the SAPPHIRE project in the implementation of a number of activities focused on the development of regional standards for marine water quality parameters and contaminants/pollutants, marine spatial planning, ecosystem valuation, selection and monitoring of critical coastal ecosystem indicators and stress reduction related to critical habitats in the LMEs, implementation of pilot level community-based management approaches to stress reduction. More specific and quantifiable indicators of Stress Reduction are included in the tables at the end of each Component description and in the results Framework. These are mainly activities that cuts across components A and B of the WIOSAP project. Additionally, the SAPPHIRE project includes activities on policy, legislative and institutional reforms emphasising on strengthening and supporting existing processes and mechanisms and strengthening of a regional and national science-to-governance. These outputs will be closely coordinated with Component D of WIO-SAP Project, which relates to strengthening transboundary governance arrangements, so as to ensure that both projects' activities in this area are working towards the same goals and outcomes, consistent with the wishes of the Contracting Parties of the Nairobi Convention.

The cooperative arrangements and synergies between the WIOSAP Project and the anticipated ASCLME-SWIOFP LME SAP implementation project, i.e. SAPPHIRE have been discussed by the UNEP GEF IW Task Manager (TM), the Nairobi Convention Coordinator and the UNDP Regional Technical Advisor (RTA), in September and November 2014 in Nairobi where they identified a number of opportunities for strengthened collaboration in the future amongst these projects. An on-going dialogue during the respective project preparation exercises has ensured complementarily between the projects and political ownership through the Nairobi Convention and the South West Indian Ocean Fisheries Commission.

The specific arrangement to ensure collaboration and harmonisation of the SAP implementation process between these two projects have been agreed by the countries and the Implementing Agencies and are elaborated below in the section on **Specific Coordination and Collaboration between SAPPHIRE and closely related partner activities.** These will include Joint Review and Steering Committee Meetings and other collaborative and shared activities leading to a harmonised western Indian Ocean SAP implementation approach.

1.8. Institutional, Legal and Policy Framework

The western Indian Ocean area is extremely well provided for in terms of regional and sub-regional organisations with SAPPHIRE aiming to support and strengthen existing organisations rather than creating new bodies. In fact WIOSEA was created to allow information to be shared

between scientific, technical, and governance bodies, allowing coordination rather than duplication of activities

Some of these that are particularly relevant to this project include the UNEP Regional Seas Convention (the Nairobi Convention), two Regional Fisheries Bodies (IOTC and SWIOFC) as well the regional COI-IOC (Indian Ocean Commission) and co-ordination on Marine and Fisheries issues through the Organization of African Unity. The region also has a number of scientific and technical research organisations, including those run by governments, academic institutions and NGOs. The Western Indian Ocean Marine Science Association (WIOMSA) is a regional professional, non-governmental, non-profit, membership organisation, registered in Zanzibar, Tanzania. The organisation is dedicated to promoting the educational, scientific and technological development of all aspects of marine sciences throughout the region of Western Indian Ocean (Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Madagascar, Seychelles, Mauritius and Réunion [France]), with a view toward sustaining the use and conservation of its marine resources, and will play a pivotal role in assisting in the coordination activities for SAPPHIRE.

A large number of NGOs, CBOs and other similar “civil society” groups are active in the WIO region, along with over 140 marine and coastal projects. Many of these, including NOAA, WWF, the International Ocean Institute and the WMO, are partners in WIOSEA.

Section 2.7 below provides a list of the primary stakeholders in terms of the regionally significant bodies and organisations that will be interacting with the Project.

Multilateral Environmental Agreements

A large number of multilateral Environmental Agreements (including many of those listed under IMO, above) are applicable to the WIO region. Appendix V of the TDA UNDP GEF Transboundary provides the status of ratification of conventions and agreements by the WIO Countries (ASCLME/SWIOFP 2012b). Those specifically relevant to SAPPHIRE include:

Marine related

- Convention on the High Seas, 1958
- Convention on the prevention of pollution from Ships (1973), as modified by the Protocol of 1978 (MARPOL)
- Convention on the Continental Shelf, 1970 (sic)
- United Nations Convention on the Law of the Sea (UNCLOS), 1982
- Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related protocols (Nairobi Convention), 1985
- Jakarta Mandate on Marine and Coastal Biological Diversity, no date (programme of action**)** (sic)
- Convention on Fishing and Conservation of the Living Resources of the High Seas, 1958
- Convention on the Territorial Sea and Contiguous Zone, 1958
- International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969 Protocol of 1976 to amend the CLC (PROT-CLC), 1976
- Convention for the Safety of Life at Sea (SOLAS), 1974
- Agreement on the Organisation for Indian Ocean Marine Affairs, 1990

- Agreement for the Establishment of the Indian Ocean Tuna Commission, (Established under Article XIV of the FAO Constitution), 1996
- Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea Bed and the Ocean Floor and in the Subsoil thereof, 1971

Biodiversity related

- African Convention for the Conservation of Nature and Natural Resources (Algiers Convention), 1968; Revised African Convention (Algiers Convention), 2003
- Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), 1973
- Convention on Biological Diversity (CBD), 1992
- Bonn Convention on Migratory Species (CMS), 1994:
    - 1. African-Eurasian Water-bird Agreement (AEWA), the largest agreement developed so far under CMS
    - 2. The Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South East Asia (MT-IOSEA)

Climate Change, Pollution, chemicals related

- Stockholm Convention on Persistent Organic Pollutants, 2001
- Basel Convention on the Control of Transboundary Movement of Hazardous Wastes, 1989
- Rotterdam Convention 1988
- Bamako Convention on the Ban of the import into Africa and the control of transboundary movement and management of hazardous wastes within Africa, 1991
- Ban Amendment to the Basel Convention, 2005
- United Nations Framework Convention on Climate Change (UNFCCC), 1992 UNFCCC Protocol, Kyoto, 1997
- Vienna Convention for the Protection of the Ozone Layer, 1985

Other Agreements

- New Economic Partnership for Africa's Development (NEPAD), 2001
- Agenda 21 and Johannesburg Plan of Implementation, WSSD, 2002
- Southern Africa Development Community (SADC), 1992
- Cotonou Agreement, 2000
- ACP-EU Economic partnership agreements
- World Trade Organisation (WTO)
- General Agreement on Tariffs and Trade (GATT), 1947

Regional Economic and Political Agreements include:

- African Union (AU)
- Common Market for Eastern and Southern Africa (COMESA)
- Southern African Development Community (SADC)
- East African Community (EAC)

Policy

The Policy and Governance Assessment has shown that the western Indian Ocean Region has a plethora of regional institutions that have legal competence in relation to various and diverse aspects of marine resource management in the region. These range from the Nairobi Convention, primarily concerned with biodiversity issues, land based pollution, and some areas of coastal zone management; through the South West Indian Ocean Fisheries Commission (SWIOFC) which is an advisory body restricted to EEZ resources; to the Indian Ocean Tuna Commission (IOTC); and the Southern Indian Ocean Fisheries Agreement (SIOFA), which is a non-tuna Regional Fisheries Body which has only recently entered into force and operates within the high seas. All these treaty regimes have clear but separate mandates. While there is some potential for overlap in their mandates, it was considered by the Assessment that there was currently little expectation or desire by these bodies to expand their competences beyond their existing and already-demanding mandates.

There are also a number of regional integration and cooperation bodies which add another layer of institutional requirements and interactions, often seeking to coordinate the activities of sub-groups of countries in their national activities and in the wider regional bodies. Notable are the SADC, COMESA, COI, IGAD and the East African Community which has highly detailed and sophisticated protocols on Environment and Natural Resource Management and on Marine Resources and Fisheries. The African Union NEPAD also runs a regional fisheries project (SPFIF), funded by the World Bank and NEPAD which is coordinating the Partnership for African Fisheries initiative and CAMFA. Also, quite recently, the countries in cooperation with UNESCO-IOC have created an IOC sub-commission for Africa and the adjacent Island States. The IOC Sub-Commission for Africa and Adjacent Island States is an intergovernmental subsidiary body of the Intergovernmental Oceanographic Commission of UNESCO responsible for the promotion of regional and international cooperation, and the development and coordination of the Commission’s marine scientific and research programmes, the ocean services, the ocean observing systems, capacity development and related activities in the region by taking account of the specific interests and priorities of Member States from Africa.

Furthermore, the countries of the WIO region are party to a significant number of global treaties, conventions and agreements relating to environment, fisheries, marine shipping and pollution, wildlife and heritage, etc., many of which have quite detailed legal requirements that the countries often find difficult to meet in terms of their formal commitments. The full list of these commitments is included in the final report from the Regional Policy and Governance Assessment. One specific area of cooperation in global fisheries which should be highlighted as guidance for any fisheries activities or interventions in the region is the FAO Code of Conduct for Responsible Fisheries which recognises the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of those concerned with the fishery sector. It also takes into account the biological characteristics of resources and their environment as well as the interests of consumers and other users. The Code is voluntary, although certain parts of it are based on relevant rules of international law, including those reflected in the UN's Convention on the Law of the Sea. It serves as a point of reference to help individual States develop their own policies and governance to exercise responsible fisheries management, as well providing guidance on the formulation and implementation of international agreements. Another milestone treaty that is important to the WIO region is the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing through more effective implementation of port State measures, and thereby to ensure the long-term conservation and sustainable use of living marine resources and marine ecosystems (http://www.fao.org/fileadmin/user_upload/legal/docs/2. 2015).

Although national and regional policies and frameworks can therefore be said to be well developed there is a clear lack of implementation at both a national and regional level, and a requirement to develop mechanisms to effectively implement policy at all levels of government. One of the objectives for SAPPHIRE is to explore ways in which it can work with and assist the mandated institutions to cement policy in national and regional legal frameworks, and develop effective implementation mechanisms.

Legal

In all cases, the countries possess a functional legal system. All countries possess environmental legislation, which are implemented and enforced with differing degrees of success, depending primarily on the ability to adequately monitor, control and survey relevant activities and then respond to and adequately prosecute transgressors. In some cases, current legislation may not adequately reflect the provisions of Conventions and Protocols to which a country has agreed and/or the provisions currently in force reflect those of a prior instrument which has since been updated, revised or replaced.

For example, the IOTC's Performance Review noted a number of significant challenges within its legal framework; *inter alia* these include:

- The IOTC Agreement is outdated as it does not take account of modern principles for fisheries management. The absence of concepts such as the precautionary approach and an ecosystem based approach to fisheries management are considered to be major weaknesses. The lack of clear delineation of the functions of the Commission or flag State and port State obligations provide examples of significant impediments to the effective and efficient functioning of the Commission.
- The limitation on participation to this RFMO, deriving from IOTC's legal status as an Article XIV Food and Agricultural Organisation of the United Nations (FAO) body, conflicts with provisions of United Nations Fish Stocks Agreement (UNFSA) and prevents major fishing players in the Indian Ocean from discharging their obligations to cooperate in the work of the Commission.

Thus, there is a clear need for many legal instruments to be revisited and for a broad review of legal frameworks pertaining to the marine sector.

In addition, enforcement of current laws and regulations pertaining to the marine environment is far from effective. This concern has been highlighted by a number of regional fisheries projects in the region with lack of monitoring, compliance and enforcement given as the primary reason for failure of effective fisheries management throughout the western Indian Ocean.

In many cases penalties are outdated, too low to be of deterrence and not enforced by the courts. In fact, current understanding of the importance of the marine environment is often not appreciated by local magistrates and there is a clear need for dissemination of information on the relevance of the marine environment to the well-being and the economy of the region, with a concomitant need to take transgressions more seriously, and strictly enforce regulations.

The Strategic Action Programme has identified the need for policy harmonisation and realignment along with institutional strengthening and reforms throughout the region in order to effectively implement a regional LME SAP. Specific areas that will be addressed by the SAP implementation process have been recognised through the SAP development and the development of this current SAPPHIRE project and are listed in Annex 4. Most of these are also covered as deliverables from the 5 components of the SAPPHIRE Project as identified in the Project Strategy (see below).

2. PROJECT STRATEGY

The overall Strategy under the SAPPHIRE Project is to provide support for the implementation of the recently – signed Strategic Action Programme for the Sustainable Management of the Western Indian Ocean Large Marine Ecosystems. This will require close coordination with other initiatives directly related to SAP implementation

The UNDP Implemented and GEF funded 'Strategic Action Programme Policy Harmonisation and Institutional Reforms' Project is one of a number of initiatives that will be operational within the Western Indian Ocean region in the immediate future (See Annex 4). The original Agulhas and Somali Current Large Marine Ecosystem project had two Sister GEF projects as mentioned above under 'Situation Analysis'. Both of these Projects are now concluded and are now going to an 'Implementation stage.

The UNEP-GEF supported project on 'Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities'

This project follows on from the previous UNEP GEF supported project on 'Addressing Land-Based Activities in the Western Indian Ocean' (WIO-LaB), which developed the TDA and SAP for was addressing the impacts and related issues from land-based activities on the Western Indian Ocean Large Marine Ecosystems.

The goal of this follow-on WIOSAP Project is to improve and maintain the environmental health of the region's coastal and marine ecosystems through improved management of land-based stresses. The specific project objective [as per the PIF] is to. '*Reduce impacts from land-based sources and activities and sustainably manage critical coastal-riverine ecosystems through the implementation of the WIO-SAP priorities with the support of partnerships at national and regional levels.*'

This project aims to address main threats to the critical coastal and marine ecosystems of the WIO Region as identified in the TDA developed under the WIO-LaB Project that was focused on addressing land-based activities and sources of degradation of the coastal and marine ecosystems in the WIO Region. These threats include physical alteration and destruction of habitats; water and sediment quality deterioration due to pollution; and the alteration of river freshwater flows and sediment loads. The project also addresses cross-cutting issues of governance and awareness which are considered important in the sustainable management of the coastal and marine ecosystems in the region. To address the main threats the 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. This component recognizes the enormous 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 suit 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.

A number of discussions were held between the developers of these two projects (SAPPHIRE and WIOSAP) during the Project Development Phase in order to ensure the complementary nature of Project activities and to discuss stronger coordination between these activities and between the Project Management arrangements. These valuable discussions were summarized in a note that both project Implementing Agencies agreed would be included in their project Documents (see Section below on Coordination and Collaboration). Arrangements for coordination are also discussed under section 5 on Management Arrangements (below).

The World Bank-GEF supported project on 'South West Indian Ocean Fisheries Governance and Shared Growth'.

The South West Indian Ocean Fisheries Project worked closely with the UNDP GEF ASCLME project to produce a joint TDA and SAP primarily for the offshore components of the LMEs. This has now developed into the SWIOFish Program, which is expected to be implementing the key commercial fisheries related commitments of the WIO SAP, particularly through national fisheries management demonstrations within the WIO region. SWIOFC have requested support for a follow-on operation, which would continue to support regional integration around fisheries management, while expanding the approach beyond research to strengthen sector governance and promote shared growth through harnessing the value of coastal and marine fisheries to regional economies.The first Project under the Program, entitled SWIOFish1, is now under preparation, and will implement, within 6 years, regional activities as well as country-level investments in Mozambique, Comoros and Tanzania. Other SWIO countries are expected to join progressively with country-level investments.

The overall Project Development Objective is to improve the management effectiveness of selected priority fisheries at regional, national and community level. It aims to do this through four Components:

Component 1. Enhanced regional collaboration: All of the SWIOFC (WIO LME) countries will participate in this first component which will focus on engagement with all SWIOFC countries to start developing a regional strategy to increase national and regional benefits from priority regional fisheries, collaboration on trans-boundary living marine resources, and address shared challenges; support for the further development and consolidation of institutional arrangements for regional fisheries collaboration; support for regional knowledge management and exchange.

Component 2. **Improved governance of priority fisheries** (*Comoros, Mozambique, Tanzania)* This component primarily targets policies, strategies, institutions and legal frameworks, and actions by the public sector necessary to improve priority fisheries management and performance, as well as regional marine environmental health and resilience to climate change. It will be backed by activities aimed at understanding the resource base, and building human and institutional capacity necessary to implement fisheries policies and management plans.

Component 3. **Increased economic benefits from priority fisheries** (*Comoros, Mozambique, Tanzania*). The component primarily targets increasing the value addition and diversifying fishers' livelihoods to reduce poverty and pressure on the region's fisheries, improving the regional business climate, enabling the private sector productivity and investment, and supporting public investments critical to a viable private sector. Measures decided by the co-management plans developed under component 2 will be implemented here.

Component 4. **Project management and coordination** (*Comoros, Mozambique, Tanzania*) will support regional Project coordination and implementation, country-level implementation and management, and monitoring and evaluation at regional and country level.

As a result of the previous GEF supported activities, there currently exists two SAPs - one focused on land-based and coastal activities and which is being implemented through the UNEP supported project, the other based on nearshore and coastal activities and being implemented by both the UNDP SAPPHIRE and World Bank SWIOFish projects. Because of the previous working partnerships and the consequent mutual objectives of these three projects (i.e. to implement an overall Strategic Action Programme for the Sustainable Management of the western Indian Ocean Large Marine Ecosystems), it is essential and inevitable that they should collaborate and cooperate both in the context of thematic activities to strengthen processes and reduce stress reduction, as well as in coordinating these through appropriate shared management and administrative practices.

As was the practice during the previous projects, management level representation from each project will sit on the other project's Steering Committees and, where possible, all relevant technical committees and workshops will be shared. Furthermore, in order to ensure harmony in activities and implementation of these two SAPS and to strengthen the cooperation and coordination between them, the UNEP WIOSAP project (responsible for the land-based and coastal activities and implementation) and the UNDP SAPPHIRE project (coordinating the nearshore and offshore SAP) have made specific arrangements to ensure very close coordination at the administrative and management level as well as at the technical level. A detailed description of this is provided in Section 5 on Management Arrangements (below).

It should be noted that, within the three projects that are directly addressing SAP Implementation there are some very clear complementary activities and areas where coordination and collaboration will be expected. For example, both WIOSAP and SAPPHIRE are working to implement marine spatial planning and both are focusing appropriately on science-to-governance or the science-policy platform which is essential for the implementation of the SAPs. Both projects are addressing these within somewhat different thematic and geographical areas in the context of the land-based and coastal SAP and the nearshore/offshore SAP. Both project will pool their resources and address their specific areas together as a partnership within the context of a single implementation process. Similarly, SAPPHIRE and SWIOFish are both looking at elements of national fisheries. SWIOFish is focusing primarily on the development of national management plans that can integrate into a regional approach while SAPPHIRE will focus more on the community-level issues related to artisanal fishing at a very localized level and how these relate to overall SAP implementation objectives. Through a collaborative partnership, it should be feasible to incorporate the more localized experiences and lessons into the larger national and regional picture and link them into an overall SAP implementation approach and LME management strategy.

Tables are provided at the end of each Component description (below) which give further detail of the coordination and collaboration that is to be expected in relation to specific SAP implementation activities and thematic areas.

2.1. Main Objectives and Deliverables of the SAPPHIRE Project

The overall Objectives of this Project is **'To achieve effective long-term ecosystem management in the Western Indian Ocean LMEs in line with the Strategic Action Programme as endorsed by the participating countries**'.

The overall Strategic Action Programme developed by the countries of the WIO is, by nature of its long-term vision, broad in its objectives and encompasses interventions that should lead to

the improved shared management of the LMEs of the region. The SAP is intended to be addressed over the forthcoming decades, with targets set to be achieved within short (5 year) or long (20 year) time frames.

Due to the comprehensive and ambitious suite of objectives and actions set out in the SAP, a long-term commitment for action is required by the countries of the region together with international partners.

In aiming to provide the initial 'launch' and implementation of this SAP, the SAPPHIRE Project cannot and does not set out to implement all the interventions proposed in the SAP; as with all SAPs, the bulk of implementation responsibility lies with the national governments, regional organizations and other partners. The Project has been designed to address those short-term actions that are:

1) Suitable for GEF funding
2) Will have maximum impact in a time frame of 3-5 years
3) Can be evaluated after 5 years
4) Will contribute clearly and demonstrably to the overall aims of the SAP
5) Achievable within the budget available to the Project.

The SAP Regional Policy Steering Committee, made up of country representatives, will be required to evaluate opportunities for implementing other components of the SAP that will lead to the overall objectives being reached over the longer time frame (20 years).

Within this context, 4 Areas of Action have been identified within the SAP which will address priority actions directly related to the Main Areas of Concern identified in the TDA (see linkages in **SAP implementation and Long-Term Vision** above) through the following components. Several of the intended Outputs from these components will focus on key areas (both thematically and geographically) which are considered to be priority. In many cases, pilots and demonstration cases will be used to identify and capture best lessons and practices within the available time frames and budget. This will be essential in view of the large geopolitical scope of this project in comparison to the resources available. Annex IV to the TDA and SAP provides a clear mapping of issues identified in the TDA, to SAP components. The Table below clarifies the linkages between the SAPPHIRE Project Components and Outcomes and the associated SAP Actions:

Table 2: Comparison of Actions Identified in the Strategic Action Programme against SAPPHIRE Component Objectives

SAPPHIRE Component	SAPPHIRE Outcome	SAP Actions Addressed	MAC Addressed*
Component 1: Supporting Policy Harmonization and Management Reforms towards improved ocean governance	**Outcome 1.1** Policy, legislative and institutional reforms and realignment in support of the SAP are implemented at national and regional level as appropriate, with emphasis given to strengthening and supporting existing processes and mechanisms including regional bodies (such as Conventions, Commissions, and Regional Scientific Bodies). Coordination and management mechanism are strengthened at both national and regional levels	All	All

	Outcome 1.2 Technical and institutional capacity developed to deliver Knowledge-Based Governance approaches by delivering scientific results to management and policy makers for adaptive management decision-making	4.B. 4.C.	All
	Outcome 1.3 Collaborative and cooperative mechanisms agreed and strengthened between national, regional and global partners and stakeholders	4.C. 4.D.	All
Component 2 Stress Reduction through Community Engagement and Empowerment in Sustainable Resources Management	**Outcome 2.1** Integrating the Ecosystem-based Management approach into Local Economic Development Plans at selected communities Pilot level and stress reduction demonstrated and captured for replication (including community stakeholder engagement and awareness of LME Goods and Services	4.C. 4.D.	1, 2, 3 (4)
	Outcome 2.2 Stress reduction through ecosystem-based practices among artisanal and subsistence fisheries		2, 3
Component 3 Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices	**Outcome 3.1** Private Sector engagement and participation in SAP implementation, particularly with and through the WOC, and through risk reduction and contingency response mechanisms using public-private sector partnership agreements along with regional partners (Nairobi Convention, WWF, IUCN, etc.). Furthermore, facilitate the adoption and implementation of mechanisms which would aim to facilitate Private Sector engagement in SAP implementation, ecosystem monitoring and associated stress reduction activities. The Private Sector will work with SAPPHIRE and its partners to 'mainstream' the ecosystem approach into their daily activities so as to reduce and mitigate impacts on EQOs.	4.A. 4.C. 4.D.	1,2,3
Component 4 Delivering best practices and lessons through innovative ocean governance demonstration	**Outcome 4.1** Identifying Innovative Management options for High Seas areas within LMEs	4.A. 4.C. 4.D.	All
	Outcome 4.2 Demonstrating effective ocean policy implementation with emphasis on marine spatial planning, intersectoral cooperation, adoption of a blue ocean economy approach, innovative management mechanisms and capture of lessons for transfer and replication		All
Component 5 Capacity Development to Realise improved ocean governance in the WIO region	**Outcome 5.1** Capacity for improved Ocean Governance strengthened through training and support	4.A. 4.B. 4.C.	All

Component 1 represents the overarching suite of activities and deliverables in support of management and policy reforms for SAP Implementation and, as such, receives most of the funding, both from GEF and in terms of co-financing (approximately 50% in both cases). The other Components represent specific priority management and governance issues within the LMEs that need to be addressed urgently in order to deliver effective SAP Implementation through Component One.

Component 2 focuses on the need for more effective community engagement in the overall management process, with an emphasis on demonstrating such engagement and involvement at the localised level, and particularly in relation to small-scale, artisanal fisheries and associated small-area management approaches.

Component 3 aims to develop effective mechanisms for interaction between the maritime industrial sector and governance bodies in the development of joint management approaches within the LMEs.

Component 4 will demonstrate best lessons and practices in strengthening partnerships for management of areas beyond national jurisdiction that nevertheless still fall within the LMEs and therefore have transboundary influence and implications. It will also demonstrate the integrated use of Marine Spatial Planning and the Blue Economy framework into the development of Ocean Governance and Policy, in close partnership and collaboration with the UNEP WIOLaB SAP implementation project which is also addressing marine spatial planning with an emphasis on coastal and nearshore planning. SAPPHIRE will aim to up-scale the approaches used and the lessons and best practices developed though this partnership to deliver a more LME-wide planning approach. One very important demonstration of best lessons and practices under Component 4 will be through Deliverable 4.2.1 - Demonstrating Innovative Ocean Governance Mechanisms and Delivering Best Practices and Lessons for Extended Continental Shelf Management within the Western Indian Ocean Large Marine Ecosystems. This will be managed as a 'stand-alone' sub-project by UNDP in view of its specific, formally-agreed management arrangements through a joint Treaty between the two countries involved (as explained in the text below under Component 4).

All three of these Components (2, 3 and 4) aim to develop new strategies and mechanisms of management that are critical to the long-term sustainability of the LMEs and the goods and services they support and, without which, any overarching SAP Implementation approach for these LMEs cannot expect to succeed.

Finally, and very importantly, **Component 5** addresses the on-going needs for capacity development and the coordination of training and capacity strengthening within the region in relation to effective SAP management and implementation.

This suite of Components therefore represents a carefully crafted strategy to support the countries and the regional bodies within the western Indian Ocean in initiating implementation of an endorsed Strategic Action Programme with a clear focus on delivering on priority issues for effective ecosystem-based management and governance within the LMEs, and for the EEZs and ABNJ that are represented therein.

The various activities which will deliver the actual outputs for SAP Implementation would be carried out through a suite of partnerships and through facilitation and coordination by existing national and regional bodies wherever possible. Section 2.6 of this document describes the various stakeholder involvement and collaboration activities which are envisaged.

It should be noted that, in the long-term, implementation of the Strategic Action Programme for the Western Indian Ocean LMEs needs to be 'anchored' through existing legal and/or institutional arrangements. The possibility of the development of a separate institutional arrangement that embraces the roles and functions of the existing regional IGOs and associations (e.g. a Commission) has been discussed in some considerable detail and agreement has been reached by all parties and stakeholders (especially the countries) that this would be both inappropriate and duplicative. This decision has been formally captured and documented during the early days of the ASCLME and WIO-LaB projects, particularly during the Policy and Governance Assessment process. It is clear that UNDP SAPPHIRE exists to

strengthen and support the existing IGOs and regional bodies and to help and facilitate their functions and roles in SAP Implementation as required by the IGOs and the countries. It is the existing legally-responsible regional bodies (i.e. Nairobi Convention Secretariat, SWIOFC, WIOMSA, IOC-UNESCO, COI, etc.) that will be responsible for implementation of the two SAPs, through whatever formal agreements and arrangements they deem necessary. SAPPHIRE, as a funding opportunity, will be available to provide funding and support to this process as required and as agreed by these bodies through the Project Document. A decision regarding the longer-term oversight and administrative processes for SAP Implementation will be made by the countries and the IGOs, as part of the outcome from the policy, legislative and institutional reforms and realignment as captured in the Components below. This decision-making process and the mechanisms for long-term SAP implementation management will be negotiated and adopted by the countries along with the IGOs as one of the priority deliverables to be supported by the SAPPHIRE project.

Cross-cutting themes

Noting its responsibilities as a UNDP Implemented project, SAPPHIRE's activities will ensure due attention is paid to UNDP's overall strategic goals wherever appropriate, with an emphasis on the UNDP Strategic Plan 2014-17, *Regional Programme Document for Africa, 2014-2017* and the *UNDP Gender Equality Strategy, 2014-2017*.

In particular, any opportunities to impact strategic objectives concerned with addressing sustainable development, poverty alleviation, Millennium Development Goals/Sustainable Development Goals, participatory management and policy approaches, early warning systems for natural disasters and climate change, gender and youth "mainstreaming" and discrimination/marginalised groups will be leveraged, alongside helping countries to meet relevant commitments from the 2002 WSSD PoI and Rio+20 and other similar high priority international policy instruments. Monitoring and evaluation activities, baseline socio-economic studies and ongoing assessments of the impacts of project activities "on the ground" will, in particular, focus on measuring progress towards these priorities and ensuring, where appropriate, project activities are carefully designed to address these objectives. Almost every Component and Outcome has deliverables and activities which can have positive impacts on these important objectives.

The following text provides descriptions of each Component, its Outcome, expected Deliverables and the Activities needed to achieve these. For each Outcome, there is also a summary of Process and Stress Reduction expectations as well as descriptions of collaboration across the three western Indian Ocean SAP implementing projects.

The Project Results Framework (Logical Framework) starting on p. 106 provides further detail in terms of indicators and detailed activities. It should be noted that, under Component 4 - Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations (below) Deliverable 4.2.1 - Identifying Innovative Management options for High Seas areas within LMEs will be implemented through a separate UNDP Project Document (see Section 5 – Management Arrangements for further explanation). Where reference is made to regional activities or supportive interventions, sub-regional actions will also be considered and supported as deemed appropriate by the participating countries and IGOs.

Component 1: Supporting Policy Harmonization and Management Reforms towards improved Ocean Governance

GEF Funding: $3,586,000; Co-financing: $236,201,966

Outcome 1.1 Policy, legislative and institutional reforms and realignment in support of the SAP are implemented at national and regional and sub-regional level as appropriate, with emphasis given to strengthening and supporting existing processes and mechanisms including regional bodies (such as Conventions, Commissions, and Regional Scientific Bodies). Coordination and management mechanism are strengthened at both national and regional levels

Output Descriptions: The primary Output from this Outcome will be support to the countries and regional bodies/institutions for realignments and changes in legislation, policy and associated institutional and administrative arrangements in line with the SAP requirements. Outputs will further aim to support the various regional and national bodies (both policy level and scientific) that will coordinate SAP implementation at the different geopolitical levels. They will aim to deliver the Science-Based Governance process at the managerial and policy level based on the various scientific and technical processes that will be implemented and integrated through Outcome 1.2. These Outputs will also aim to translate the information and results in the national MEDAs into National Action Plans that embrace the various concepts of Local Economic Development planning, ICM, Ocean Policy, etc.

National legislation will need reviewing in the context of the overall ecosystem-based management approach and the requirements for SAP Implementation. This will include any legislation that regulates the use of ecosystem goods and services (e.g. fisheries, ICZM, land use, EIA, agriculture, aquaculture, forestry, water use, etc.). This will ultimately require both the development of innovative tools and management mechanisms, and also a sustained programme of training in their use throughout the requisite sectors of government. In terms of a long-term SAP implementation vision, additional reforms within the finance sector (national budgets to support ongoing activities) and education sector (to equip citizens with the tools needed to fully participate in participatory management) may also be needed.

Furthermore, the SAPPHIRE Project will endeavour to recognise and support national initiatives that promote and complement SAP Implementation, such as: Ocean Policy & Small Scale Fisheries Policy (South Africa); Development of an Ocean Policy (Kenya); Blue Economy & Development of Spatial Planning across EEZ region (Seychelles); Roadmap for Ocean Economy & EAF-focused Fisheries Policy Reform as well as the Maurice Ile Durable Policy, Strategy and Action Plan (Mauritius) and others as they are identified. This may include support for the development of Demonstration activities to 'pilot' best practise where they have been identified and agreed, with a view to then support their replication (as appropriate and requested) elsewhere in the region.

Deliverable 1.1.1: Agreement on a regional SAP Implementation Policy Steering Committee with membership from all of the participating countries and including Intergovernmental and Non-Governmental Organisations. The appropriate structure and role of this Committee will be elaborated through consultation and collaboration with the mandated regional institutions and specifically to complement and interact directly with the UNEP-GEF WIOSAP and World

Bank-GEF SWIOFish Implementation policy and steering mechanisms as explained above in the description of SAP implementation arrangements and under the section below on **Specific Coordination and Collaboration between SAPPHIRE and closely related partner activities** .

Proposed Activities

- First Policy Steering Committee and Inception Workshop – to establish ToRs and Operational Strategy.
- Annual Policy Committee Meetings. Where feasible, these Meetings will be coordinated and integrated alongside the similar steering mechanisms being employed by the UNEP GEF WIOLAB SAP Implementation project
- Inter-meeting communication and coordination
- Review and distribution of Adaptive Management Guidelines and Policy Briefs (including monitoring of management and policy decisions and results)

Deliverable 1.1.2: Adoption of a regional SAP Scientific and Technical Advisory Panel (STAP) or similar scientific support mechanism, with membership from all appropriate scientific institutions and including Intergovernmental and Non-Governmental Organisations. The STAP would be the major body for ensuring delivery of the Ecosystem Monitoring Programme and Capacity Building and Training Programme as well as working closely with appropriate national and regional scientific institutions to advise on any strong trends in the scientific data that need fast action at the management level. The STAP would also review data handling and analysis/modelling at the LME level and ensure effective access and sharing where appropriate. Again, direct linkages would be forged and collaborative mechanisms established with UNEP-GEF WIOSAP and World Bank-GEF SWIOFish projects.

Proposed Activities

- Adoption of a Regional Scientific and Technical Advisory Panel or similar body/mechanism by Regional Policy Committee (including agreement on membership and on mechanisms for linkages or incorporation into to existing scientific bodies e.g. within SWIOFC, Nairobi Convention, WIOMSA)
- Annual meetings of Regional Scientific and Technical Advisory Body
- Inter-meeting communication and coordination
- Review of incoming data/conclusions and development of Adaptive Management Guidelines and Policy Briefs (including monitoring of results from management and policy decisions)
- Support to Regional Think-Tanks as required, for example, brainstorming exercises on adaptation scenarios and options for the more pressing effects of climate change on communities; regional think-tanks and/or high-level round tables on fast-track delivery of management options and possible policy realignments based on incoming data; etc.

Deliverable 1.1.3: Establishment of National Intersectoral Committees. Wherever possible, these would be evolved from existing Committees (e.g. ICM bodies) rather than developing new bodies. If no such body exists then assistance and support would be given to develop such an intersectoral body which is essential to effectively anchor SAP implementation at the national level. These IMCs are also recognised as a requirement within the UNEP-GEF

WIOSAP project and the two projects will collaborate in assisting each country to identify and adopt (or strengthen where already in existence) such IMCs.

Proposed Activities:

- First meeting of National Intersectoral Committees as an LME SAP implementation body (establishing function and responsibility, ToRs and Operational Strategy)
- Regular meetings of National Intersectoral Committees
- Inter-meeting communication and coordination between Committee members and national institutions
- Production and distribution of Adaptive Management Guidelines and Policy Briefs (including monitoring of management and policy decisions and results)
- Support to national working groups as required

Deliverable 1.1.4: Adoption of National Technical Committees to handle SAP technical and scientific issues and activities in-country.

Proposed Activities:

- Identification of National Technical Committees (wherever possible using existing bodies)
- Regular (Biannual) meetings of National Technical Committees
- Inter-meeting communication and coordination
- Discussion of incoming data/conclusions and development of national Adaptive Management Guidelines and Policy Briefs (including monitoring of management and policy decisions and results)
- Support to national thematic and scientific working groups as required to address SAP implementation priorities

Deliverable 1.1.5: Implementation of the priority national requirements for strengthening and improving national legislation, policy and institutional arrangements in line with the intentions of the LME SAP and to support the ecosystem-based approach, including national commitments to regional and global Agreements, Conventions and Protocols. (See ANNEX 2: P). This deliverable would also include translation/incorporation of the Marine Ecosystem Diagnostic Analyses into National Action Plans as appropriate.

Proposed Activities

- Countries confirm priorities and project provides support (as required) for agreed reforms or realignments and for strengthening and capacity development of institutional and administrative arrangements to support such changes. This would also include on-going/regular reviews of policy, legislative and regulatory changes and support for further implementation.
- National control, monitoring, surveillance and compliances measures for LME-related legislation/policies reviewed and strengthened as appropriate
- Assistance to countries for national accession to / ratification of appropriate international Conventions and similar agreements; support and encourage unified regional uptake of priority instruments
- Collaborate with the appropriate regional bodies and Secretariats in providing assistance to ensure that the legal basis exists to implement the provisions of

Conventions and similar agreements and to encourage enactment of appropriate supporting legislation, including amendments of outdated policies

- Support the countries in revising the national MEDAs and incorporating their findings into National Action Plans as appropriate
- Further support the countries in updating the overall regional TDA and using the updates to support Science-to-Governance process under Outcome 1.2

Outcome 1.2: Technical and institutional capacity developed to deliver Knowledge-Based Governance approaches by delivering scientific results to management and policy makers for adaptive management decision-making

Output Descriptions: This Outcome and its Outputs will focus on capacity strengthening and development for effective Science-to-Governance processes and delivery of pragmatic and up-to-date options and guidance for adaptive management and policy decisions. As such, it will work closely with other stakeholders and service-providers in the adoption of indicator-based ecosystem monitoring methodologies and strategies; in providing support for further development of marine spatial planning techniques (particularly in partnership with the UNEP GEF WIOLAB SAP Implementation Project) and encourage their use in the overall governance process; evolve and capture ecosystem valuation and cost-benefit analysis techniques on the ground and demonstrate their use in effective ocean governance and ecosystem management; further harmonise regional data and information management, handling and distribution (as evolved through the original ASCLME Project); develop a weight-of-evidence and peer review process for Dynamic Management (as part of the overall SAP implementation requirements);

Deliverable 1.2.1: Regional and National Ecosystem Monitoring Programmes adopted throughout the WIO LMEs as part of SAP Implementation and through the STAP (and approved by the regional Policy Steering Committee)

Proposed Activities:

- Ecosystem Monitoring Indicators and monitoring sites identified through the SAP Implementation Scientific and Technical Advisory Panel and appropriate regional working groups, taking into account global standards and indicators developed though, amongst others, AoA and TWAP. This process will be undertaken in direct collaboration with other users of ecosystem monitoring indicators in the region including the environmental and maritime conventions and fisheries advisory/ management bodies
- Regional Programme for Ecosystem Monitoring adopted and implemented along with work-plan / road-map (including frequency of monitoring) and assistance in securing funding/equipment requirements
- Harmonisation of national monitoring activities with regional monitoring programme, with mechanisms adopted to feed national monitoring data into overall regional ecosystem monitoring process and analysis
- Identification of mechanism to feed results of monitoring programmes into the science-to-governance process (see below) as part of the trends analysis and adaptive management strategies

Deliverable 1.2.2: Support to the appropriate regionally and globally mandated bodies and Conventions (e.g. Nairobi Convention, etc.) toward the adoption of regional and global

standards (e.g. as provided for by IMO Conventions and protocols) for marine water quality parameters and contaminants/pollutants

Proposed Activities:

- Support the appropriate regional and global bodies in confirming the priority issues that need to be addressed in the context of regional compliance with contaminant and pollution standards (including microbial contaminants, alien and exotic species,ship and platform based solid and liquid waste discharges and oil and other hazardous chemical)
- Provide the requisite support and assistance to countries, through the appropriate national and/or regional agencies, to assist in the adoption of standards and requirements, for ratification and for meeting the commitments required under the appropriate regional and global conventions and protocols

Deliverable 1.2.3: Strengthening and implementation of a Regional and National Science-to-Governance process and delivery in support of effective Adaptive Management and Policy Decisions

Proposed Activities:

- Define and agree a realistic and appropriate Science-to-Governance and Dynamic Management strategy for adoption at the regional and national levels (as a major priority and responsibility of the STAP advising the Policy Steering Committee)
- Identify an appropriate regional scientific and technical institutional arrangement and body to undertake the peer review process and weight-of-evidence assessment for data and publications within a 'Trends in Ecosystem Variability and Change' monitoring mechanism
- Development and delivery processes and mechanisms also adopted for management guidelines and policy brief/updates arising from Trends analysis and confirmation which provide options based on cross-sectoral considerations and pragmatic inclusion of socioeconomic implications
- Feedback mechanism established for monitoring the outcomes of management responses and policy decisions and providing this information to the management and policy level and to the scientific review bodies for further fine-tuning and prioritisation of monitoring processes and scientific studies

Deliverable 1.2.4: A standardised regional approach to assessment techniques for evaluating ecosystem goods and services and identifying the cost-benefits of the ecosystem approach and ecosystem based management, building on existing initiatives in the region (and particularly the ongoing Natural Capital Assessment pilot for the new Primeiras and Segundas Multi-Use Conservation Area in Mozambique which is supported by WWF, the African Development Bank, UNDP and UNEP)

Proposed Activities:

- Establish a working group of experts to undertake pilot studies of ecosystem goods and services and to deliver cost-benefit analyses at both national and regional level. These studies and analyses should give due consideration to gender-related issues and provide insight into how project activities could take into account the different needs of men and women as well as youth in the communities

- Adopt a regular and standardised assessment strategy to coordinate with the science-to-governance process in support of adaptive management guidelines and policy briefs and updates

Deliverable 1.2.5: Support Marine Spatial Planning development as a regional tool in support of Science-to-Governance mechanisms and make this MSP process available to all countries.

Proposed Activities:

- In partnership with other existing initiatives and mandates, co-develop and co-implement a regional methodology for Marine Spatial Planning alongside the UNEP GEF WIOLaB SAP Implementation Project that can also be used at the national level.
- Support WIOLaB SAP Implementation in assisting the countries in formal adoption of Marine Spatial Planning within national legislation with specific consideration given to identifying pilot or pilots to demonstrate 'best practices' in Marine Spatial Planning exercises
- Help to demonstrate 'best practices' for involve local communities in participatory Marine Spatial Planning through appropriate national mechanisms.
- Develop and implement MSP at the greater regional LME level in close collaboration with various regional and international partners and agencies.

Outcome 1.3 Collaborative and cooperative mechanisms agreed and strengthened between national, regional and global partners and stakeholders

Output Descriptions: The Outputs from this Outcome focus on the development of more effective collaboration and coordination of SAP implementation activities and decision-making at the regional level, and on reciprocal representation on Steering Committees, technical bodies and working groups, etc. This will include further development of the partnerships that have evolved effectively under WIOSEA as well as closer and more consistent collaboration and sharing of experiences between projects and other related initiatives in the region

Deliverable 1.3.1: Agreements on assistance and support from the SAPPHIRE Project to countries and IGOs to assist them as requested in their functions and responsibilities for SAP implementation with emphasis on collaboration and cost-effective cooperation on transboundary issues. Agreements captured where appropriate in MoUs and through reciprocal membership or attendance at various Steering and/or Scientific Committees, etc.

Proposed Activities:

- Regional Meeting within the SAP Implementation process and partners to discuss support and funding from SAPPHIRE in relation to needs of IGOs and other regional bodies with mandates and responsibilities that relate to SAP implementation (could be amalgamated into first meetings of Policy Steering Committee and STAP)
- Attendance of SAPPHIRE Project and appropriate partners at appropriate meetings of regional bodies by invitation (e.g. Nairobi Convention COP; SWIOFC Scientific and Commission meetings; WIOMSA, etc.)
- Membership of appropriate regional bodies and other partners in the SAPPHIRE Project Steering Committee

- Support for attendance at other appropriate coordination meetings in the interests of SAP Implementation

Deliverable 1.3.2: Consolidation of the WIOSEA partnership and definition of its support role through one Agreement which includes or references decisions by partners on support to SAP Implementation where appropriate.

Proposed Activities:

- Regional Meeting of WIOSEA Partners to define the role and to discuss the long-term strategy and sustainability of the Alliance, in collaboration with other similar regional groups such as the Consortium for the Conservation of the Coastal and Marine Ecosystems of the Western Indian Ocean (WIO-C), which is a consortium of NGOs in partnership with intergovernmental organisations
- Further Development of the WIOSEA Partnership arrangements which identify commitments from partners to support of SAP implementation where appropriate.

Deliverable 1.3.3: Support to facilitation of appropriate regional and global meetings for project collaboration and discussion, sharing of scientific results and conclusions, and regular interaction with SAP Implementation partners. Facilitate decisions on long-term planning and a road-map for sustainability of SAP management

Proposed Activities:

- Facilitate and support biennial meetings of a Regional Project Coordination Forum
- Facilitate and support a biennial WIO LME Science Symposium, in conjunction with other relevant regional meetings (e.g. Nairobi Convention COP meetings, WIOMSA meetings, BCLME Science Forum, etc.) and in partnership and collaboration with LME:LEARN, IW:LEARN and the African LME Caucus. This will aim to interpret scientific information and results within the region in the context of possible trends-of-change that may need urgent adaptive management actions and/or policy recommendations.
- In collaboration and partnership with other appropriate initiatives (e.g. WIOLAB SAP Implementation Project), facilitate and support biennial WIO LME Partner Conferences to develop and regularly review the road-map and resource needs and availability for SAP implementation and its sustainability
- Negotiate most appropriate mechanisms and venues for above symposia and conferences with partner initiatives in the region (including possible alignment with WIOMSA biennial symposia)
- Provide feedback from various scientific and technical meetings into the Scientific and Technical Advisory Panel (STAP) of the SAP (under 1.1.3 above)

Component 1: Supporting Policy Harmonization and Management Reforms towards improved Ocean Governance	
Indicative Process Improvements	**Indicative Stress Reduction Improvements**
Long-term regional SAP implementation institutional arrangements evolved (policy and	

technical level)	
Long-term national SAP implementation institutional arrangements evolved (policy and technical level)	
Adaptive management processes established at regional and national levels based on MEDA and TDA updates and using harmonised, ongoing monitoring of indicators	
Interactive Feedback process established between policy, management and science/technical level to ensure priority SAP implementation activities are fast-tracked	
National legal and policy realignments adopted in support of SAP implementation and to ensure domestic compliance with appropriate Conventions	Stress reduction to LME through regional compliance with standards for pollution/contamination. Ship and platform-based waste discharges reduced by 20%. Uncontrolled ballast water discharges reduced by 15%.
Studies on ecosystem goods and services and cost benefit analysis used to inform and realign policy and to drive adaptive management	
National legislation adopted in support of Marine Spatial Planning and Management	Stress reduction to LME through pilots in each country. At least 7 ‘best practices’ in use of MSP demonstrating localised reductions in habitat degradation (25% increase in ‘protected’ habitats being managed at local level by MSP adoption), improved public-private sector management agreements leading to measurable reductions in coastal and offshore discharges across 20% of LME, work closely with UNEP WIOSAP project to achieve 10-20% reduction in measurable land-based waste discharges into coastal areas
Formal collaborative mechanisms, agreements and alliances supporting SAP implementation	

Coordination and Collaboration with UNEP GEF WIOSAP and World Bank GEF SWIOFish	
UNEP GEF WIOSAP	**World Bank GEF SWIOFish**
Harmonisation and sharing of SAP institutional arrangements at technical and policy level	
Joint initiatives for development of more effective adaptive management approaches based on science/knowledge -to-governance	
Sharing of data and results on ecosystem goods and services and cost benefits including joint activities	
Close collaboration and shared activities regarding marine spatial planning to ensure full LME coverage (land-based out to ABNJ) Including oceans and ICM	Work closely with SWIOFish to incorporate fisheries management objectives and measurable indicators into overall LME Marine Spatial Planning agreements

Link with WIOSAP project in adopting appropriate LME monitoring indicators and monitoring programmes/road-maps	Also, link with SWIOFish to identify suitable monitoring indicators for fisheries (commercial and artisanal/subsistence) to include in broad marine spatial planning and management strategies.
Agreement between SAPPHIRE, WIOSAP and SWIOFish on collaborative delivery of SAP implementation endorsed by countries. Collaborative joint agreements and alliances with mutually useful partners.	

Component 2: Stress Reduction through Community Engagement and Empowerment in Sustainable Resources Management

GEF Funding: $1,240,000; Co-financing: $4,056,358

Outcome 2.1: Integrating the Ecosystem-based Management approach into existing Local Economic Development Plans at selected communities Pilot level and stress reduction demonstrated and captured for replication (including community stakeholder engagement and awareness of LME Goods and Services

Output Descriptions: The Outputs will aim to address stronger engagement of communities into the LME monitoring/management and SAP Implementation process by integrating the ecosystem approach, particularly into the Local Economic Development (LED) plans created through the ASCLME Project, especially through stress reduction plans/goals and through integrating cost-benefit analysis and ecosystem valuation of goods and services into the overall LED business planning. The Project will interact with the governments to deliver priorities for community engagement and support. It is intended that selected LED plans (as developed during the ASCLME Project) will be fine-tuned to ensure capture of an ecosystem-based management approach and its implementation at community level as demonstrations during the SAPPHIRE Project. Selection of sites will be based on standard criteria such as the presence of existing and effective community working groups, and existing interaction between communities and local/national government bodies. Furthermore, these criteria must recognise the importance of youth and gender balance in this process

Deliverable 2.1.1: Communities sensitised about values of LME goods and Services by establishment of a regional community engagement and local economic empowerment group (as a sub-set of the STAP) to steer the LED-Ecosystem Based Management (EBM) approach and mechanism within selected demonstration communities

Proposed Activities:

- Regional Policy Steering Committee agrees to and adopts criteria for selection of national community demonstration sites within the region at SAPPHIRE Inception Workshop Meeting
- Regional Policy Steering Committee agrees on pilot countries/demo sites for LED-EBM plans/strategies to be piloted (through an electronic correspondence selection process based on adopted criteria)
- Selected Pilot Countries nominate experts and community leaders to steer the demonstration activities at the selected community pilot sites. These experts and

community leaders should be equitably representative so as to include an appropriate balance of gender and age, and would form a 'virtual' working group as a sub-set of the STAP and would report to the Policy Steering Committee (which could advise on including additional expertise into this working group as necessary).

- Terms of Reference for delivery of Outputs and Outcomes from selected sites are finalised with the inputs from the national experts and approved by the working group. Terms of Reference to address, *inter alia,* the following requirements:
  - Community engagement "on the ground" must occur very early in the Project implementation; LED plans already exist and need only relatively minor modification before engaging with communities
  - Clear, realistic stress reduction related expectations for the activities and their outcomes must be agreed with communities
  - A mechanism for ongoing and responsive dialogue with communities must be created and sustained, with reference to local realities in the pilot site(s)
  - Parallel governance structures must be avoided; this activity must be in close partnership with a national or local governance body at each site

Deliverable 2.1.2: Promotion and Implementation of ecosystem-friendly economic pilot activities at the community level

Proposed Activities:

- National level technical working group(s) established at government and community level in appropriate pilot country (with additional experts as required)
- National level working group(s) meeting regularly to develop mechanisms for implementation and adoption of LED-EBM plans
- Cost-benefit Analyses and Ecosystem Goods and Services Evaluations undertaken for pilot site as a core focus of the LED-EBM process
- Pilot LED-EBM delivery strategies developed and adopted (based on national or regional negotiation processes as appropriate) in pilot country
- Mechanism identified to harness community-level input into management and policy dialogue through the involvement of community leaders
- Monitoring process in place with feedback to policy and technical level committees and to IW:LEARN to capture lessons learned and best practices. The emphasis here would be on providing guidelines and best practise to countries that can be used in the development of ecosystem-focused LEDs.

Outcome 2.2: Stress reduction through ecosystem-based practices among artisanal and subsistence fisheries

Output Descriptions: The Outputs from this Outcome aim to support the involvement of artisanal fishing communities in design and implementation of management interventions within the overall EBM and SAP implementation approach. Four demonstrations (communities) will be selected (through a set of criteria negotiated and agreed at the regional level) to address selected key issues identified through the MEDA/TDA/SAP process. Issues identified may include local understandings of declining catches, user conflicts (including gear-use conflicts) and local and national processes that destroy fishing stocks (e.g., harmful fishing methods, poorly managed coastal development, pollution, habitat destruction, foreign fleets, and local/industrial fishing conflict). In order to address fisheries problems in these communities,

local fisheries management approaches and community rights-based fisheries need to be integrated into the development of hybrid LEDs that incorporate project management goals with local perceptions and institutions. There is a need to identify the drivers that cause low living standards and health issues among artisanal fishing communities and demonstrate options for alternative livelihoods. This should be undertaken with due consideration and focus relating to alternative livelihoods that could be available to women as well as men[3]. In a fisheries livelihood context, capacity development is required in relation to handling, processing, storage, transportation and marketing of artisanal catches as well as business management and access to micro-financing and credit facilities. This will require the training and awareness of locals in gear improvements, safety of life at sea (including navigational skills) and conflict resolution (to support creation of local management boards).

It is recognised that a number of valuable interventions addressing some of these issues have been undertaken, are presently underway, or are being planned for the region. These emanate from a range of regional projects and programmes including SMARTFISH, FAO, WWF, CORDIO, the Wildlife Conservation Society and Conservation International. A thorough review of such initiatives and their delivery/outcomes will be undertaken (in close collaboration with the appropriate and relevant projects and programmes) so as to provide a basis for the design of a complementary suite of SAPPHIRE funding and activities and support processes. It is also the intention to coordinate activities through SWIOFC and SWIOFish to further ensure the interventions selected are those that allow collaboration between projects and programs and avoid duplication and dilution of the skills and knowledge available in country. The SWIOFish project is also working at the country level and the demonstration areas/communities within this SAPPHIRE Output that will focus on the community and very localised artisanal fisheries management needs will provide good input to the SWIOFish activities at the greater national level. Selection criteria will focus on tangible and measurable stress reduction activities and changes in practice. Ultimately the communities chosen as demonstration sites will be those identified by the countries as best fitting the criteria for selection and which are representative of typical coastal fishing communities within each selected country.

Deliverable 2.2.1: Broad information on different categories of small scale fishing communities in the region and an assessment of past, present and planned interventions.

Proposed Activities:

- Develop a suite of social and ecological context criteria for distinguishing between different types of fishing communities in the region, both on a national and regional scale
- Assess the spatial nature of different types of fishing communities in the regions, providing GIS referenced information. Augment existing data with field observations as required
- Assess past success/failures and existing and planned initiatives which target selected local small scale fishing communities across the region, assessing best practice
- Based on the community types and assessment of existing and planned initiatives, initiate discussions with relevant national and regional government agencies and regional and national projects to identify appropriate interventions.

[3] UNDP Gender Equality Strategy, 2014-2017. p.13.
http://www.undp.org/content/dam/undp/library/gender/GenderEqualityStrategy2014-17.pdf

Deliverable 2.2.2: Selection of four small scale fishing communities and a detailed understanding of local governance and ecological knowledge systems within each community

Proposed Activities:

- Develop a suite of criteria for selecting four representative communities (to include criteria related to gender and youth as appropriate)
- Through submissions from relevant National Institutions, an appropriate regional selection panel (as designated by the Policy Steering Committee) will advise on the selected four representative communities across the region
- Initiate a study to fully understand the local social, political, and economic complexities and context of the four communities prior to final selection of targeted interventions.
- Four demonstration communities agreed and selected by Policy Steering Committee

Deliverable 2.2.3: Selected interventions successfully introduced into four small scale fishing communities and deliver Artisanal Fisheries Management Plans for inclusion into National Fisheries Management Strategies

Proposed Activities:

- Using the understanding of the local context of each community, and other projects and programs operating in the region, select appropriate interventions that are complementary and compatible with on-going activities
- Adopt a Working Group at the Community level to oversee day-to-day activities and to report back to the Policy Steering Committee
- Six monthly review process between the Project Management Unit and the Community Working Group to ascertain delivery, success and constraints
- Artisanal Fisheries Management Plans agreed and adopted at each of the four small-scale fishing community sites to demonstrate best practices in stress reduction in the small-scale fisheries sector
- Community–level Artisanal Fisheries Management Plans incorporated into overall national Fisheries management plans (as appropriate) to expand stress reduction in the fisheries sector at the national level

Component 2: Stress Reduction through Community-Level Stakeholder Engagement and Empowerment in SAP Implementation	
Indicative Process Improvements	**Indicative Stress Reduction Improvements**
More formal community engagement (through establishment of community groups) into the governance process and into implementation of SAP objectives and activities	National marine spatial planning approaches now focused at community management leading to stress reduction at coastal and estuarine level and up-river (see below)
Ecosystem-based Local Economic Development Plans adopted within pilot communities and evolved for replication	Better coastal management strategies leading to reduced stress on coastal habitats and species from pollution (see below) and habitat changes. 25% reduction in land degradation over 4 years; 5-10% habitat restoration at selected community pilot sites.

Adoption of community demonstration sites and replication sites has specific stress reduction objectives and measurable indicators as a formal requirement	Specific stress reduction at demo sites includes sewage treatment practices and technology improvements leading to at least 25% reduction in untreated or secondary treated wastes at pilots;; waste water recycling improved at pilots by 50%; ; coastal set-back regulations adopted within 2-3 years at all sites; ecosystem-based tourism increased by 15-20%); improvements in water quality at coastal/estuarine level measurable by reduction in harmful pesticides, nitrates and phosphates from up-river sources by 10-15%
Adoption of Artisanal Fisheries Management Plans at a localised community level (four pilot communities) and distributed for replication	Reduction in harmful fishing methods demonstrated at 4 pilot communities though changes in gear use and fishing practice (across 35% of local fishing fleet). 30% reduction at pilot sites in overall non-usage bycatch; 30% reduction from artisanal fisheries in catch retention of sensitive/endangered species (sea turtles, dugong, seabirds, small cetaceans, coelacanth, etc.)
Community–level Artisanal Fisheries Management Plans incorporated into overall national Fisheries management plans with a strong emphasis on stress reduction in the artisanal sector	Reduced gear-use conflicts between artisanal and commercial fishers noted for at least 25% of EEZ within LMEs; better management of fish handling and transportation (leading to fewer losses and more availability so reduced pressure on stocks) recorded within at least 4 national fisheries
Community rights-based fisheries policies encourage better community level management of local fishery	Controlled catches of species and sizes in at least two communities per country; improved gear usage demonstrates less destructive fishing practices as recorded in at last 4 countries;
Possible alternative livelihood development through aquaculture	Pressure on local fisheries reduced through small-scale aquacultural development in at least 4 pilot areas

Coordination and Collaboration with UNEP GEF WIOSAP and World Bank GEF SWIOFish	
UNEP GEF WIOSAP	**World Bank GEF SWIOFish**
Close coordination and collaboration with the Land-Based SAP implementation activities at the community level to ensure complementarity and more cost-effective replication and to share demo experiences	Close coordination and collaboration with fisheries SAP implementation objectives and aims and deliverables from SWIOFish related to community/artisanal level fisheries.
Work closely with the Land-based Activities SAP project in capturing alternative livelihood strategies in LED (e.g. aquaculture) and in ensuring best practices for use of coastal and marine resources (e.g. mangroves, sand and	Cooperate closely with SWIOFish to consider and offer alternative livelihoods where artisanal fisheries struggling, as well as food security through other means including aquaculture development. Better data capture for informing community/artisanal level

gravel extraction, etc.)	fisheries management

Component 3: Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices

GEF Funding: $755,000; Co-financing: $16,810,008

Outcome 3.1: This component will aim to deliver stress reduction within the LME through more effective and 'hands-on' Private Sector engagement and participation in SAP (particularly by working with and through the WOC), implementation and through risk reduction and contingency response mechanisms using public-private sector partnership agreements along with regional partners (Nairobi Convention, SWIOFC, WWF, IUCN, etc.). Furthermore, it will drive the adoption and implementation of mechanisms which would aim to facilitate Private Sector engagement in SAP implementation, ecosystem monitoring and associated stress reduction activities. In particular, the WOC will engage with the Private Sector will work with SAPPHIRE and its partners to 'mainstream' the ecosystem approach into their daily activities so as to reduce and mitigate impacts on EQOs.

A. Output Descriptions: The overall Output will aim to develop stronger partnership with the private sector and maritime industries (particularly through the WOC) in order to reduce stress to the LMEs from that source as well as to benefit from the multitude of activities which the private sector engages within the LMEs that can provide support to SAP implementation and its various objectives and actions. Outcome 3.1 will be focusing on the development of working partnerships between industry and the various regional players responsible for SAP implementation (especially the IGOs). The industries which will be targeted as a priority will be primarily the nearshore and offshore related ones (WIOSAP will be dealing mainly with PPPs for land-based stress reduction). In this context, there has been much discussion and development of partnership with the World Ocean Council and particularly its members. An Aide Memoire for Cooperation and Collaboration between the original UNDP GEF ASCLME project and the members of the World Ocean Council was signed in 2012 and still stands in principle and will be renewed upon the inception of SAPPHIRE. In this document the two parties agree to cooperate closely in the following areas:

- Development of the "Smart Ocean/Smart Industries" program as an International Ocean Science and Industry Platform. The SO/SI vision is for leadership companies from a range of ocean industries to collaborate with the scientific community in the systematic, regular, sustained and integrated collection and reporting of standardized oceanographic and atmospheric data for input to operational and scientific programs that improve the safety and sustainability of commercial activities at sea and contribute to maintaining and improving ocean health.
- Demonstration of an Effective process for engaging the Ocean Business Community in the management of the ASCLME. Such private sector involvement could be invaluable and would include data collection from ships and platforms of opportunity/convenience. Further advantages in joint cooperation include an improved data quality assurance and control by all parties, and the development

of pragmatic and workable management mechanism and practices that can be supported by all stakeholders, including industry.

- Further development of the Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA) as set up during the UNDP GEF ASCLME project and as described above under **Section 1 – Situation Analysis**. In order for such an Alliance to be effective it will be imperative to include the private sector and particularly those industries involved in shipping and energy extraction (oil and gas) within the western Indian Ocean.

Some of the principal WOC members include the global shipping and transport industry (e.g. A.P. Moller-Maersk A/S); the oil and gas industry (e.g. BP, Exxon, Total, Shell, etc.) the mining industry, including deep sea mining (e.g. Nautilus Minerals Inc., Rio Tinto) and many others. All of the above have very real day-to-day interaction with the ASCLME, inevitably are potential stressors to the LME and equally potentially can make major contributions to stress reduction as they have agreed in the aforementioned Aide Memoire. Usefully, WOC membership also includes quite a number of commercial industries dealing with diverse areas including instrumentation and technology development. One other area of stress within the LME that has recently become very important (especially in relation to EBSAs, VMEs and BPAs) is the targeting of seamounts by the deep-sea fishing industry. In this context, the UNDP GEF ASCLME project has been negotiating with the Southern Indian Ocean Deepsea Fishers Association (SIOFA) to develop voluntary management plans and voluntary protected areas on these seamounts and would be taking this negotiation process further to a signed agreement under SAPPHIRE.

Deliverable 3.1.1: Negotiation and adoption of Public-Private Sector Partnerships (PPP) working within the SAP implementation management arrangements.

Proposed Activities

- PPP for SAP Implementation realised with a potential to establish Operational Funds from Industry to support Private Sector engagement
- Establishment by the Private Sector of a PPP Scientific/Management Body to advise and cooperate closely with the regional STAP/Policy Steering Committee on stress reduction activities and agreements. This would be coordinated closely with the Nairobi Convention and with other related LME initiatives that are focusing on land-based activities and sources of stress as well as offshore stress reduction from fisheries (working with SWIOFC, SWIOFish and IOTC)
- Identification of appropriate private sector partnerships and their inputs to the SAP implementation process (e.g. through Agreements brokered by the WOC)
- Strengthened partnership with major ocean use industry players on WIO LME management through existing mechanisms, such as WOC or the International Seafood Sustainability Forum (an existing industry-driven initiative)
- Private sector effectively engages in SAP implementation and ecosystem based management

Deliverable 3.1.2: Piloting of an ocean-industry initiative within the WIO LMEs (working closely with the WOC), focusing on data capture and processing and contributing to ongoing research and EQO indicator monitoring programmes (linked into the Ocean Health Index) as envisioned in the SAP

Proposed Activities:

- Data from ocean-industry partnership initiative actively included in data assessments and reviews of impacts (i.e. through the SAP Ecosystem Indicator Monitoring programme and Science-to-Governance processes, as well as through regular MEDA-TDA updates)

Deliverable 3.1.3: The Private Sector supporting SAP implementation and reduction in ecosystem stress and acknowledging and adopting the LME Approach. The Private Sector "mainstreaming" its use and consideration within everyday management practices and business activities by actively contributing to SAP implementation and by ensuring its operational practices recognise the holistic Ecosystem Approach and implement mechanisms to reduce stress.

Proposed Activities:

- Work closely with private sector partners, especially with and through the WOC, in order to streamline, support and sustain their ongoing involvement in SAP implementation and EQO attainment
- LME "sensitisation" activities, including creation of business-centric documentation of the LME approach and its applications to the private sector
- Piloting of collaboration with (and encouraging development of) Maritime Clusters as municipal, national and possibly regional instruments for direct engagement with industry for SAP Implementation
- Identification of funding to support the creation of participation mechanisms for SMEs in SAP implementation activities and utilisation of LME considerations in their business practices
- Ensure Private Sector organisations use the LME approach within their business activities (e.g. the use of "triple bottom line" accounting practices or similar mechanisms which regularly and formally report on private sector contributions to environmental and social well-being as well as economic performance); improvements to EQOs and/or attaining and maintaining acceptable limits.

Deliverable 3.1.4: Collaboration with other appropriate regional projects, IGOs and NGOs so as to involve them in the development of (and benefit from) public / private sector partnerships in Ocean Governance.

Proposed Activities

- Public / Private sector Partnerships (PPP) engagement mechanisms evolved to include stakeholders from across IGOs, NGOs and Civil Society, as well as other relevant regional projects as appropriate. Close cooperation with UNEP WIO-SAP and WIO-C essential.

Deliverable 3.1.5: Address the potential impacts of the growing oil and gas development in the region through A. Support to the development and implementation of a full Strategic Environmental Assessment, and B. Negotiate the identification and implementation of a Regional Response Centre, which can effectively and swiftly coordinate regional responses to emergencies, with a focus on shipping (Search and Rescue) and response to oil and gas

and other marine pollution incidents likely to show effects at transboundary scale. National plans support this regional activity.

Proposed Activities:

- SAPPHIRE to provide support and assistance to countries, and to collaborate with other regional partners (e.g. WWF, Nairobi Convention, etc.) on undertaking a regional SEA to be conducted for the entire oil and gas development region (strong focus on the northern Mozambique Channel). This would help to guide sensitivity mapping to support any necessary emergency response programmes. Countries may also require assistance in the development and implementation of related supportive national legislation.
- Identify a mechanism or forum that can facilitate inter-country dialogue and decision-making with respect to impacts from the oil and gas industry in the region. This could be a function of specialised working groups under the STAP and/or Regional Policy Steering Committee. This process will be closely linked to the partnership with the WOC
- Negotiate a partnership between appropriate hazardous spill contingency planning and response organisations (e.g. IPIECA, ITOPF, etc.), regional and international agencies engaged in the management of conventions and legislation (e.g. IMO, Nairobi Convention, etc.) and the SAP implementing countries.
- Regional Response Centre (RRC) negotiated and established through appropriate partnerships with existing mandated institutions and agencies with access to sufficient equipment (including ships and aircraft) and chemical stores to respond to threats in time. Due consideration to be given here to previous initiatives and their success and long-term durability in light of concerns over the sustainability of such responses measures.
- RRC has appropriate facilities for regional Maritime Domain Awareness in support of SOLAS/Search and Rescue with appropriate information sharing to national level.

<table>
<tr><th colspan="2">Component 3: Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices</th></tr>
<tr><th>Indicative Process Improvements</th><th>Indicative Stress Reduction Improvements</th></tr>
<tr><td>Formal Private-Public Sector Partnerships adopted (as part of a WIO Alliance) and agreement on priority stress reduction activities related to SAP implementation</td><td rowspan="2">Agreed actions to reduce pollution at sea lead to a 10- 20% decrease in discharges from shipping pollution as monitored and audited by industry under voluntary agreement. A similar reduction of pollutant inputs from land-based point sources shows a 10-15% decrease in nitrate, phosphate and other nutrients, harmful chemicals and waste products at selected ‘hotspot’ monitoring sites around the LME.
Similar 10-15% reduction in bacterial contamination at selected monitoring sites. Adoption through agreement with industry of sensitive areas for avoidance or for specific control of activities including discharges) amounting to 25% of LME area;
Monitoring of exotic, non-native and nuisance species and actions taken to prevent/mitigate</td></tr>
<tr><td>Voluntary self-regulation adopted by industry on a number of stress reduction areas such as oil pollution, ballast discharge, coastal industrial discharges, etc.</td></tr>
</table>

	introductions and spreading; Reductions in sediment loads from coastal mining, dredging and development by 10-15% at selected key 'hotspot' areas; reduction by 25% in the numbers of seabirds and other not-target species taken in fishery as reported independently.
Formal regional agreements on avoidance, mitigation and response to hazardous spills adopted	Levels of hydrocarbons and chronic pollution from oil and other hazardous chemicals in water column and biological tissue reduced by 15% and 25% respectively at key monitoring sites and areas (i.e. those with previously high levels such as shipping lanes and adjacent fisheries). This to link in to requirements and objectives of the respective protocol in the Nairobi Convention.
Ocean-industry partnership established for monitoring and capture of data to support SAP implementation (e.g. chemical and physical oceanography, climate information, etc.)	
Measurement of stress reduction activities related to socio-economic improvements in the LME	Community LED pilot sites demonstrating close partnership with relevant industries or commercial activities for a more ecosystem-based development of economic opportunities. All 4 sites (100%) by end of project

Collaboration with UNEP GEF WIOSAP and World Bank GEF SWIOFish	
UNEP GEF WIOSAP	**World Bank GEF SWIOFish**
Close coordination and collaboration with the Land-Based SAP implementation activities related to potential impacts and threats from industry and commercial activities and inclusion in PPPs and Agreements for cooperation and voluntary self-regulation	Close coordination and collaboration with fisheries SAP implementation objectives and aims and deliverables from SWIOFish related to impacts and threats from fishing industry
Work closely with WIOSAP and Nairobi Convention to meet proposed Stress Reduction targets (as above) related to land-based activities and associated sources of stress	Cooperate with SWIOFC, SWIOFish and IOTC in identifying strong fishing industry partnerships and addressing offshore stress reduction from fisheries. This would aim to reduce to artisanal-commercial fisheries conflict, improve catch statistics across all fishing sectors for better management, identify more effective methods for bycatch reduction and avoiding capture of non-target species, monitor and reduce shark-finning activities.
	Strengthened partnership with major ocean use industry players on WIO LME management through existing mechanisms, such as WOC (particularly expanding fisheries partnership with WOC) or the International

	Seafood Sustainability Forum (an existing industry-driven initiative

Component 4: Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations

GEF Funding: $1,539,000; Co-financing: $6,591,716

Outcome 4.1: Identifying innovative management options for High Seas areas within LMEs

Output Descriptions: LMEs, by definition, do not fall within national jurisdictions but are defined by biophysical and chemical parameters. ABNJ sit alongside EEZs within the defined LMEs and have transboundary implications for these neighbouring sovereign waters. Outputs from this Component will focus on the development and trial of options for new management partnership initiatives for High Seas related areas and ABNJ within the LME system management boundary. This will include the negotiation of voluntary management and partnership options and agreements. One area of focus will be the need to develop and demonstrate (where possible) options for benthic/seamount/deep-water management areas and regimes (including VMEs and MPAs). In order for these management approaches and designations to be functional it will also be necessary to identify pragmatic and sustainable financial mechanisms to support them. This Outcome in particular will require the negotiation and active engagement of strong partnerships and alliances between the countries that border the high seas area and the non-country stakeholders that access, potentially impact on and (in some cases) directly utilise the resources of those areas (e.g. maritime industries such as shipping, fisheries, mining, etc.). Much of the preliminary work has been done during the UNDP GEF ASCLME project and partnerships have been forged which can assist in moving this process forward. The IUCN GEF-UNDP Seamounts project was undertaken in close partnership with the UNDP GEF ASCLME project with the latter providing much of the logistics and ship's time necessary to survey these seamounts as well as hosting much of the scientific data review and the Indian Ocean Governance workshop in June 2011. It was formally agreed at this governance workshop 'to use the UNDP GEF ASCLME project (along with its existing and evolving partnerships) to explore the development of an alliance as a working arrangement to demonstrate effective management and governance mechanisms for ABNJ in the Indian Ocean'. This is also in line with the original agreement with GEF made at the Workshop on Governance of Marine Areas Beyond National Jurisdiction (Singapore 2008) that the ASCLME project would take an innovative lead role in developing management practices for ABNJ. The more recent GEF global level initiatives being implemented by FAO, UNEP and the World Bank are focusing on developing global strategies, with the western Indian Ocean being an identified area of priority. There are clear opportunities for complementarity and for the Alliances and partnerships developed through the original ASCLME project (such as the deep-sea fisheries management organisations and the deep-sea mining industries) to evolve through SAPPHIRE and being available then to work closely with these ABNJ initiatives. The SAPPHIRE project will be focusing on demonstrating management agreements between the adjacent countries and those potential stressors of the CAHSA (contiguous Adjacent High Seas Areas) such as the various commercial enterprises. This links in and expands on the activities of Component 3 above. The follow-up project to the original IUCN GEF-UNDP Seamounts project is the IUCN/FFEM project entitled "Conservation and sustainable exploitation of seamounts and hydrothermal vent ecosystems of the South West Indian Ocean outside of national legislative borders". ASCLME

has always had a close working relationship with IUCN which is a member of the WIO Alliance, and will continue to maintain and grow this relationship during the lifetime of these two related projects and beyond. The Aide memoire signed between IUCN and ASCLME specifically mentions collaboration in work related to the Indian Ocean Seamounts. ASCLME was an active partner and executor in the first 'seamounts' project and has been actively engaged in discussions leading to this second follow-up phase.

Deliverable 4.1.1: Negotiation of Alliances and Partnerships between bordering countries and user/stakeholders of ABNJ which fall within the LME system so as to develop management agreements.

Proposed Activities:

- On behalf of the countries, the Regional Policy Steering Committee to adopt a High Seas Policy Development (HSPD) Working Group which can negotiate with users and stakeholders of ABNJ and Contiguous Adjacent High Seas Areas (CAHSA) that fall within the LMEs
- HSPD Working Group addresses the issues, constraints, challenges and possible options for management strategies related to natural resources, impacts and usage of Contiguous Adjacent High Seas Areas, taking into account existing best practices and lessons
- Development and delivery of options (to SAP Regional Policy Steering Committee) for the establishment of a High Seas (CAHSA) Alliance (or similar body and Agreement) for management of Contiguous Adjacent High Seas Areas within the LMEs. This body would identify those activities necessary for SAP Implementation including ecosystem indicator monitoring, marine spatial planning, etc. this would need to include private sector / maritime industry and this involvement could be brokered through the partnership with the WOC.

Deliverable 4.1.2: Specific activities undertaken through partnership agreements (such as the CAHSA Alliance, as above) to support SAP Implementation requirements.

Proposed Activities:

- Development of a strategy/programme to undertake Marine Spatial Planning within the LME management area pertaining to ABNJ with a view to using this mechanism to develop management guidelines. This activity would be undertaken in close collaboration with and support to the activities of other interested parties including UNEP (WCMC and Nairobi Convention Secretariat), FAO, other UN agencies with ocean mandates, and NGOs active in the region
- Gaps Analysis and Baseline Ecosystem Surveys undertaken in CAHSA as appropriate and designated by SAP implementation bodies.
- Long-Term Ecosystem Monitoring Strategy developed for CAHSA and adopted through the CAHSA Alliance
- EIA standard methodologies and objectives identified by CAHSA Alliance (especially for deep-water habitats and seamounts) and adopted by the countries and the Alliance as appropriate

Deliverable 4.1.3: Identifying innovative management options for High Seas areas within LMEs

Proposed Activities:

- Negotiation and agreement through the CAHSA Alliance on specific voluntary management strategies and designations related to MPAs, BPAs, VMEs, etc. within the WIO LMEs region.
- Negotiation and adoption of voluntary regulatory measures for activities within the CAHSA of the WIO LMEs
- Identification of long-term financial agreement and measures to support monitoring, control, surveillance as deemed appropriate by the CAHSA Alliance
- Facilitation and active participation of CAHSA Alliance partners (as appropriate) in a global level think-tank and partnership for development of management practices and lessons
- Report on Best Practices and Lessons Learned from development of voluntary operational and management practices within a CAHSA
- Close collaboration with regional and global partners also engaged in ABNJ/high seas management interests
- Assistance to countries to establish High Seas 'Best Practices' for voluntary management agreements and voluntary regulation of activities that can help them to develop and adopt a united position within the international community

Outcome 4.2: Demonstrating innovative management options within specific marine space within the WIO LME

Output Descriptions: This Output will focus on specific case studies at the national and bilateral level that support the overall LME approach and implementation of the Strategic Action Programme. Emphasis will be on using the Marine Spatial planning approach to underpin the adoption of ocean policy, recognising the importance of the Blue Economy within such Marine Spatial Planning (and therefore ensuring broad engagement of all stakeholders), and addressing some of the specific challenges to governance in the LME related to joint management and extended continental shelf jurisdiction.

Deliverable 4.2.1: Demonstrating Innovative Ocean Governance Mechanisms and Delivering Best Practices and Lessons for Extended Continental Shelf Management within the Western Indian Ocean Large Marine Ecosystems

N.B. This Deliverable 4.2.1 is the subject of a separate UNDP Project Document as it will be implemented through a separate Steering Committee (Primarily the Joint Management Commission of Seychelles and Mauritius and UNDP) and managed through a separate management arrangement (see Section 5 – Management Arrangements for further explanation). As a sub-component of the overall SAPPHIRE SAP implementation project, this JMA Demonstration project will work closely with and alongside the wider UNDP GEF SAPPHIRE Project and they will report and review progress jointly as per the Project Implementation Review process and will undertake a single Mid-Term and a single Final Evaluation. One of the Components of the SAPPHIRE Project will be specifically addressing coordination and will therefore provide the necessary vehicle to ensure such collaboration and coordination for the JMA Demonstration project. Notwithstanding this separate set of activities for these two countries alone, both Mauritius and Seychelles have signed the SAP and will be fully active and engaged in all other elements of the SAPHHIRE project.

Proposed Activities:

- Build Technical and Management Capacity in support of Marine Spatial Planning and effective management of the Joint Management Area
- Develop and adopt a data and information system along with a programme of data capture and gap-filling as a foundation for an adaptive management strategy
- Adopt and implement a Marine Spatial Planning approach with the objective of improving and implementing effective decision-making for activities within the Joint Management Area

Deliverable 4.2.2: implementation demonstrated within South Africa with a focus on intersectoral collaboration and management mechanisms

Proposed Activities:

- Support the lead role of the Department of Environmental Affairs in the realignment from a sectoral ocean management process toward a coordinated sectoral ocean and coastal ecosystem management approach
- Support to the creation of a framework for integrated environmental planning and management based on effective and institutionalised co-ordination within government and with outside stakeholders
- Strengthening the Science-Policy interface through support to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services in developing an evidence based decision-making process
- Assist in the development of knowledge products, adaptive management guidelines and policy briefings related to changes in ecosystem balance and climatic variability etc. Including the early identification of trends for response.
- Produce a 'Best Lessons and Practices' publication highlighting the development of ocean policy in South Africa

Deliverable 4.2.3: Demonstrating Marine Spatial Planning within a Blue Economy framework in selected areas within participating countries for further replication and transfer of lessons. If and where appropriate, these MSP demonstration sites can be linked to the LED/EBM demonstrations under Component 2 above.

Proposed Activities:

- Identify appropriate areas for demonstrating localized community MSP linked to Local Economic Development Plans (as developed through the ASCLME project using agreed selection criteria (at Project Inception stage). The selection criteria can be integrated with those for the LED/EBM demonstration sites in Component 2 above.
- Initiate demonstration projects based on an agreed work-plan and budget with clear indicators of delivery (at Project Inception stage)
- Develop and adopt a community-based 'Blue Economy' management plan based on MSP
- Capture lessons and best practices for replication throughout the participating countries

Component 4: Delivering Best Practices and Lessons through Innovative Ocean

Governance Demonstrations	
Indicative Process Improvements	**Indicative Stress Reduction Improvements**
New formal voluntary management Agreements and Alliances for Contiguous Adjacent High Seas Areas (CAHSAs) next to EEZs but within LMEs. Across-the-board stress reduction measures in place for ABNJ within LMEs as a result of voluntary agreements for management	Reduced ship-based pollution as specified above. Frequency of hazardous spills reduced by 30% through project lifetime; ; non-LMR exploration and extraction agreements lead to measurable reduction in biodiversity loss (at least 10% through project lifetime)
Adoption of Marine Spatial Planning and Management Strategy for entire LME (in collaboration with other ASCLME SAP partners), including voluntary MPA/BPA/VME adoption. Across-the-board stress reduction measures for entire LME as a result of MSP and MS Management being adopted.	Increased formal protection given to important/sensitive habitats and species as identified in TDA, leading to an increase in protected and managed areas by at least 3-5% in each country. Voluntary offshore BPA and VME agreements provides an increase of over 15% in formally managed and protected areas across the LMEs
Adoption of a long-term Ecosystem Monitoring Strategy for CAHSAs	
Adoption of an Ecosystem-Based 'Blue Economy' Strategy for the Joint Management Area (as a discrete but integral part of overall Marine Spatial Planning and Management of the LME)	Stress reduction measures for entire JMA focus on reducing impacts on pristine Mascarene Plateau region and associated habitats and species (many yet to be mapped and identified). Allocation of 5-10% of Plateau region as EBSA with formal protection measures (either benthic MPA. Voluntary agreement benthic and high seas MPA, or specific control and management of activities)
Adoption by South Africa of intersectoral collaboration and joint management mechanisms in support of its ocean policy and Operation Phakisa	Support to Operation Phakisa to deliver on its stress reduction objectives in South Africa that are related to the ocean economy including expanding aquacultural activities as alternate livelihoods and fisheries stress reduction (at 2 pilot sites- working closely with BCLME III project) and developing reduced impacts at 3-4 exploration sites around Agulhas LME coastal area of RSA
Integration of MSP and Blue Economic development adopted into formal Local Economic Development plans for selected sub-regions	

Collaboration with UNEP GEF WIOSAP and World Bank GEF SWIOFish	
UNEP GEF WIOSAP	**World Bank GEF SWIOFish**
Link MSP process into WIOSAP nearshore and land-based MSP process	Close collaboration with SWIOFish over Joint Management strategies and initiatives within the ECS (Seychelles and Mauritius). Assist in development of a Joint Fisheries Management strategy for ECS under JMC
Collaborate closely with WIOSAP activities on Blue Economy developments at national levels	Ensure incorporation of fisheries planning and management into overall MSP approach
	Collaborate with SWIOFish to capture improved benefits from regional fisheries

	within any blue economy approach
	Partner with SWIOFish in bringing specific sub-components into the investments pre-feasibility scenario (i.e. Improved business and investment climate; expansion of opportunities for priority fisheries and value addition; and planning and investment in strategic infrastructure.

Component 5: Capacity Development to Realise improved Ocean Governance in the WIO region

GEF Funding: $1,106,500; Co-financing: $53,316,547

Outcome 5.1: Capacity for improved Ocean Governance strengthened through training and support

Output Descriptions: This Outcome will strengthen capacity development throughout the region via an agreed work-plan and road-map for capacity building and training in relation to SAP implementation and capturing country and regional priorities. It will identify and confirm, through formal agreement, the partnerships that will support and fund capacity development. It will also consolidate the Western Indian Ocean Sustainable Ecosystem Alliance which has been evolved and agreed through the original ASCLME Project. Capacity Building and Training will be planned and delivered in collaboration with other relevant initiatives in the LMEs including WIOSAP and SWIOFish. WIOSAP' priorities for capacity building are focused on the implementation of the LBSA protocol and the implementation of the ICZM protocol. SAPPHIRE will work closely with the WIOSAP project wherever these activities can be coordinated cost-effectively and resource-wise.

Deliverable 5.1.1: A Capacity Building and Training Programme adopted at the regional and national levels throughout the WIO LMEs region (based on original MEDA-TDA-SAP findings and guidance)

Proposed Activities:

- A Regional Training Coordination Partnership comprised of representatives of key training institutions established to help coordinate and assist with the Capacity Building and Training Program. This would be an agreed partnership (comprised of existing regional institutions and international partners) for review and delivery of the priorities CB&T needs of the countries as related to the ecosystem-approach at the LME level as established in the MEDA-TDA-SAP development process.
- Through the National Technical Committees, the Regional Training Coordination Platform and regional STAP, review CB&T priorities originally developed through MEDA-TDA-SAP process and reaffirm such priorities
- National and regional CB&T programmes negotiated and adopted through a five-year work programme and road-map

- Close Collaboration with IW:LEARN Programme and 'Strengthening Global Governance of Large Marine Ecosystems and Their Coasts (LME:LEARN)' project

Deliverable 5.1.2: Operational Strategy and Management mechanism for delivery of required capacity development and training (with supportive funding) agreed by SAPPHIRE partners in support of SAP implementation activities.

Proposed Activities:

- Funding sources identified to support CB&T training
- Feedback to regional Policy Steering Committee and the Regional Training Coordination Platform (and other appropriate regional and pan-African bodies including other management bodies for African LMEs)
- Countries agree on 'high-priority' areas and issues that need to be addressed through capacity development, including through training overseas if required
- Implementation of capacity development in selected high priority areas coordinated through the Regional Training Coordination Platform (including provision of targeted modular courses at technical and managerial level)
- Support for country attendance to the IOI Annual 4-week Ocean Governance Training Course
- Support for attendance on overseas training courses as appropriate
- Specialist courses in Taxonomy and Identification noted by all countries in their National Training Plans (in close collaboration with national/regional centres of expertise
- Support to countries in Marine Spatial Planning exercises and their further development into management and policy alignment
- Support for taxonomic guides using advanced key technology

Deliverable 5.1.3: Support for country and regional involvement in the Indian Ocean Observing System (IndOOS) and its Resources Forum (IRF) as well as SIBER (Sustained Indian Ocean Biogeochemistry and Ecosystem Research - an international programme co-sponsored by IMBER and IOGOOS (Indian Ocean Global Ocean Observing System) to coordinate closely with SAPPHIRE Monitoring Programmes and other related activities and initiatives in the western Indian Ocean

Proposed Activities:

- Support to country and regional involvement in IndOOS and IOGOOS
- Identification of resources to support, sustain and implement the IndOOS Plan (including negotiations and partnerships for maintenance of the RAMA array, distribution of Argo floats, working with Ships of Opportunity, enhancing the biogeochemical observations in the region, etc.)
- Close collaboration with and facilitation (where feasible) of the International Indian Ocean Expedition - Two

Component 5: Capacity Development for Effective SAP Implementation and associated management approaches	
Indicative Process Improvements	**Indicative Stress Reduction Improvements**

Adoption of a regionally-agreed capacity building and training programme as per SAP	No measurable Stress Reduction expected on-the –ground. Capacity development will provide the skills and expertise to deliver Stress Reduction targets as highlighted above however.
Improved capacity for ocean governance and management provides concrete capacity for stress reduction within the LMEs	
Adoption of a partnership of institutions to provide a Regional Training Coordination Platform to deliver said programme. Extension and formal agreement on partnerships developed during ASCLME delivers training and improved expertise as well as mentoring which reduces stress on countries as a result of limited capacity and skill-sets	

Collaboration with UNEP GEF WIOSAP and World Bank GEF SWIOFish	
UNEP GEF WIOSAP	**World Bank GEF SWIOFish**
Close collaboration with WIOSAP, SWIOFISH and Nairobi Convention and SWIOFC as well as other partners to ensure consensus on priorities and to ensure cost-effective capacity development and country and regional levels	
Close collaboration with WIOSAP, SWIOFISH and Nairobi Convention and SWIOFC as well as other partners (e.g. WMC, IOI, IOC-UNESCO, etc.) to ensure effective and timely delivery of capacity development and training as required	
Collaborate with WIOSAP and Nairobi Convention to ensure data and information are accessible through the Clearing House Mechanism	Collaborate with SWIOFish in relation to their sub-components on knowledge and management of priority fisheries; Improving the performance of public institutions and assets; and Information, communication and awareness.

2.2. End-of-Project Landscape

By the end of the SAPPHIRE Project, the following sustainable processes should be in place:

- National and regional institutional arrangements in place to coordinate and monitor the WIO LME SAP implementation
- Realignment, harmonization and reforms in policies, institutions, legislation supported at national and regional level, strengthening policy enabling environment for improved ocean governance
- Strong partnerships built between the Governments, regional institutions, UN agencies, NGOs, and private sectors supporting the WIO LME SAP Implementation
- Science-to-Governance Mechanism established at both national and regional levels
- Private Sector involvement in SAP implementation
- Empowered communities effectively involved in ecosystem management and SAP implementation
- Management options defined for adjacent high seas areas

- Demonstration of the ocean policy implementation/development process using MSP as a tool
- Strong capacity development for ocean governance addressing country and regional priorities

2.3. Incremental reasoning for GEF support

The following table lists the current weak baseline for supporting an ecosystem-based management approach within the WIO LMEs against the intended alternative actions, reforms, realignments and deliverables in line with the stated objectives and activities within the Strategic Action Programme

Table 3: Comparison of the Current Baseline to the Intended Alternative or Incremental Activities and Outcomes

CURRENT PRACTICE (BASELINE)	PROJECT ALTERNATIVE (INCREMENTAL)
The ecosystem-based management approach to LMEs within the western Indian Ocean region is not effectively captured within current national or regional policy, legislation or institutional management. Existing management mechanisms are not always effectively implemented with appropriate cross-sectoral agreement and coordination. This is true at both national and regional levels. There are limited resources available to many of the responsible regional bodies and organisations to carry out activities related to SAP implementation. This is even more the case at the national level of support for SAP implementation.	Use of the Strategic Action Programme as guidance for adoption of the necessary and agreed reforms and harmonisation in policies, legislation, institutional arrangements and adaptive management strategies. The SAPPHIRE Project focuses clearly on the need for strengthening cross-sectoral management arrangements (at both national and regional levels) and the introduction of inter-ministerial coordination and collaboration for the management of LME resources and impacts where they do not currently exist. The SAPPHIRE Project provides resources for rationalization and coordination of management responsibilities in line with SAP implementation, both to the participating countries and to the mandated regional bodies and organisations. One of the priorities of the Project is identification of long-term sustainability of SAP implementation and associated national and regional management mechanism in the absence of future GEF funding.
There exists a multitude of regional IGO and NGO organisations in the western Indian Ocean and Africa region. Some of these may have bilateral arrangement for coordination of activities and objectives but many do not. Effective SAP implementation will require close collaboration and coordination between these bodies in their various roles of representing and/or supporting the countries in implementing the SAP and fully embracing the ecosystem-based management approach within their 'Blue Economy' objectives.	A number of regional bodies either have a mandated responsibility to the countries for LME –related management issues (environmental conventions, fisheries management, etc.) or have their own aims and objectives (in the case of NGOs). Most of these organisations or bodies have some level of interaction. The SAPPHIRE Project assists in the development of formal understandings and arrangement that will recognise the mandates and/or the strengths of various bodies within partnerships that support various SAP implementation requirements. Some of these partnership arrangements have already been brokered during the ASCLME-SWIOFP TDA-SAP activities, and can now be extended and rationalised.
Need to raise awareness at the community level of the importance of LME goods and services as renewable resources (and the	The Project provides specific focus for stress reduction through community engagement. The existing LEDS will be reviewed (and expanded as necessary) to ensure full

cost-benefits of their effective management) in order to encourage more community-based management approaches as well as to demonstrate the value/importance of including community level management into the overall national strategy for ocean and coastal governance and blue economic objectives. At present, countries are not able to effectively implement the Local Economic Development (LED) plans (that were developed under the UNDP GEF ASCLME project) or to undertake informed participatory ecosystem based management approaches. These LED plans do not adequately capture the ecosystem approach or address stress reduction on the ecosystem/ Furthermore, Ecosystem cost benefits of sustainably managing goods and services is not a clear message within the current LED frameworks. The 'Blue Economy' concept and approach needs to be an integral and overarching component in the development of such community-level LEDs and the countries need support and capacity development at a national, regional and local level to finalise these LED plans. Without a sound knowledge of the social structure and local governance mechanisms within communities, rational decisions on intervention are not possible.	integration of the ecosystem-management approach within an overall blue economy strategy. Community level activities will also focus on defining and demonstrating the renewable goods and services available and the cost-benefits of maintaining those goods and services. Once these LED plans have been amended and agreed, the project will then demonstrate the delivery of these plans at pilot levels in order to evolve best lessons and practices for effective replication.
The contribution of artisanal fisheries to food security is threatened by reducing catches, stock depletion, user conflicts (e.g. tourism), a localised high level of exploitation and habitat destruction, resulting from inappropriate gear/methods and climate change (e.g. Dynamite fishing, coral bleaching, industrial pollution, coastal discharges. Broad information on different categories of small scale fishing communities in the region are not readily available and there are few if any management plans or strategies for fisheries management at the localized community level. LED plans require a clear link between artisanal fisheries development and sustainability and the broader goals of the communities (including alternative livelihoods).	Recent studies under the ASCLME and SWIOFP have demonstrated that the (usually unreported) catch from artisanal fisheries in the region can be hugely significant and can constitute up to 70% of a countries annual catch. Yet these catch figures are not taken into account in national or regional fisheries management strategies. The Project provides specific focus on working with selected communities to develop community-level artisanal fishery management approaches and to assist in getting these adopted into national fisheries management strategies.
Despite their obvious stakeholder role in sustainability of LME goods and services, most Private Sector companies are generally unaware of LME concept and do not "mainstream" them within their activities.	Negotiations under the ASCLME-SWIOFP projects have already led to the development of a potential partnership arrangement with the private sector (notable through the WOC) and a declared interest from a number of main players from that sector to work closely with the countries

There is no effective, broad Private Sector participation in SAP Implementation in the region and no systematic involvement of Private Sector in data capture, analysis and dissemination. Neither is there a formal programme of self-regulation by industry. The private sector does not generally involve itself with the implementation of various international Conventions. Furthermore, there is no effective, implementable strategy for emergency response to hazardous spills or the impacts from the oil, gas or mining exploratory or extractive processes and no existing, functional regional emergency control/coordination centre.	and regional bodies in WIO region in realising effective management of goods and services and impact within the LMEs. It is intended that the further evolution of this partnership will included direct assistance with data collection and analysis as well as the development of voluntary regulations and practices in support of SAP implementation. With the growth of involvement of the oil and gas sector (and the expected growth in seabed mining), the need for a coordinated response strategy to any harmful impacts arising from those industries is now imperative. The Project focuses on the need to revive this dialogue and negotiate between the countries, appropriate IOGs and global bodies (such as IMO, ITOPF and IPIECA) and industry in order to secure support and agreements for such a response facility and mechanism.
There are no current arrangements for monitoring or attempting to control or manage impacts within the high seas areas immediately adjacent to areas of national jurisdiction (e.g. the EEZs). No partnership arrangements have been developed to address this 'transboundary' concern. Furthermore, there are no examples of effective management processes within the 'extended continental shelf' scenario which presents unique challenges of a sovereign seabed overlain by a 'high seas' water column.	LMEs, by definition, may and frequently do include high seas areas which are contiguous to sovereign seas and which can therefore have transboundary implications to those countries which are directly adjacent. With particular emphasis on the growing partnerships with industry, the SAPPHIRE Project aims to develop agreements and mechanisms for management of these LME ABNJ. The Project also focuses on the new management challenges that are associated with Extended Continental Shelf allocations working closely with Seychelles and Mauritius in supporting the development of the joint management arrangement for their shared ECS management area.
Countries in the region are recognising the value of the blue economic approach but do not have sufficient information on the renewable value of LME goods and services. Marine spatial planning is not currently a standard methodology or requirement as a tool to support a blue economic approach and ocean policy and governance *per se.*	The Project aims to support the demonstration of the development of ocean policy and management strategies at the national level in line with the blue economy and through intersectoral management approaches. It further aims to demonstrate how marine spatial planning is a vital instrument in the development of such ocean policy and generally for any effective management of the ocean and coastal areas.
Currently there is insufficient national and regional capacity to guarantee sustainable SAP implementation and effective management and sustainability of LME resources, goods and services. Efforts need to focus equally institutional capacity development as much as training and capacity building of individuals, in this context, Partnerships for SAP implementation and capacity strengthening have grown successfully through ASCLME and SWIOFP but still need more effective coordination and prioritisation.	One component of the Project focuses on the urgent need for capacity development. A set of priorities for capacity building and training were developed during the ASCLME-SWIOFP TDA-SAP process and these will be re-visited to ensure that they are still valid and appropriate. The Project aims to support the countries in agreeing on a road-map for delivery of priority capacity development at both national and regional level. The project will work with the countries and other regional bodies to identify the most appropriate mechanisms for addressing these priority needs, through strengthening and support to existing courses and through the development of modular courses that can be delivered as required. A strong partnership has already been developed with academic and research institutions during the ASCLME-SWIOFP projects that can

	help to deliver these capacity development and training needs and this will be enhanced in order to provide a regional platform for capacity building and training as requested by the countries as part of the SAP development process.

2.4. Consistency with GEF and UNDP Objectives as well as other Global Environmental Benefits

The following Table demonstrates the consistency between the SAPPHIRE Project and the GEF 5 Strategy and Objectives:

Table 5: GEF 5 Strategic Focus compared to Objectives of UNDP GEF SAPPHIRE Project

GEF 5 – Focus of IW Strategic Objective	UNDP GEF SAPPHIRE Objectives
INTERNATIONAL WATERS	
IW Objective 2 (primary). Catalysing cooperation between countries to rebuild fisheries and reduce pollution in Large Marine Ecosystems through the implementation of agreed management strategies through ecosystem-based approaches and policy/legal/institutional reforms	This project will assist the countries to identify appropriate mechanisms within a management strategy that can ensure the long-term sustainability of fish-stocks and can also develop the necessary partnerships and approaches to control and reduce pollution within this joint high seas and sovereign jurisdiction area through an ecosystem based management strategy that recognises the political and economic needs to undertake sustainable development and resource utilisation
IW Objective 3 (secondary). Requests from States to begin foundational capacity building for new transboundary water systems not yet addressed by GEF. This aims to build trust and confidence among States so that they may work together collectively on their transboundary water issues. It addresses political commitment, shared vision, and institutional capacity in support of joint, ecosystem-based management of water bodies	Within the context of the SAP and its intent to manage the WIO LMEs through a Strategic Action programme, this represents a new transboundary water system, both geopolitical between the participating countries, as well as jurisdiction-wise between a sovereign territorial and EEZ seas and adjacent LME ABNJ which are transboundary 'high seas'. A fully effective management strategy for the LMEs then will require building trust through both the political leadership of the countries and close partnership with all LME stakeholders including the private sector. The project will now assist and support the countries to deliver appropriate management mechanisms, institutional capacity and data capture as well as monitoring vehicles, in close alliance across all sectors within government and beyond
IW Objective 4. Provides support for first pilot efforts at preventing degradation of valuable ocean areas beyond national jurisdictions It aims to promote effective management of marine areas beyond national jurisdiction. Outcomes include	Over and beyond the requirement for developing voluntary management mechanisms in transboundary ABNJ within the LME, this project will include a global 'first pilot' for both extended continental shelf management and for support to a

demonstrating the capture of such ABNJ under sustainable management and protection, and through improved flag and port state enforcement of practices. It is also intended that these plans and institutional frameworks for pilot case ABNJ have a catalytic effect on the related global situation and discussions thereon.	unique Joint Management Agreement (JMA) for such management. Most of the superjacent water column within the JMA constitutes ABNJ. The overall objective will be to deliver a sustainable management strategy which will involve the use of a number of mechanisms including port state control and enforcement, as well as close liaison with the private sector over management strategies within the ABNJ. The outcomes of this project will provide valuable lessons and practices for further replication around the world.
BIODIVERSITY[4]	
Objective 2 – Outcome 2.1. Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation	Marine spatial planning will be a cross-cutting activity for many of the project Components and a specific focus under capacity development. Furthermore, the Project includes specific demonstrations (under 4.2) that will address the demonstration and use of MSP for the development of ocean policies at the national level within the objectives of the SAP as well as the development of a blue or ocean economy approach as part of the integrated management approach for under the SAP
Objective 2 – Outcome 2.2. Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks	The Marine Spatial Planning component will feed into a formally-agreed management and governance mechanism which will include the appropriate policy and regulatory frameworks

Noting its responsibilities as a UNDP Implemented project, activities will ensure due attention is paid to UNDP's overall strategic goals wherever appropriate, with an emphasis on the UNDP Strategic Plan 2014-17 and the UNDP Regional Programme Document for Africa, 2014-2017. The UNDP Regional Programme for Africa identifies five regionality principles which define the particular added value of a regional and sub-regional approach to addressing development challenges in Africa. The following Table compares these UNDP strategic goals with those of the SAPPHIRE Support project.

Table 5: UNDP GEF SAPPHIRE Project Outputs compared to UNDP Africa Programme Principles

UNDP Africa Programme – Regionality Principles	Outputs from the UNDP GEF SAPPHIRE Project
Promotion of regional public goods and services, based on strengthened regional cooperation and integration	This Project will strengthen cooperation between the participating countries engaged in the SAPPHIRE project and promote the public goods and services within the LME management area. The Project will also develop cooperative partnerships with the various Regional Economic Communities and will
Management of cross-border externalities	In view of its overarching 'transboundary' nature,

[4] While the project is not receiving Biodiversity/STAR GEF financing, it does support these two Objectives from the GEF5 Biodiversity strategy

(challenges and opportunities) and spill-overs – such as trade, the environment and conflict – that are best addressed collaboratively on an inter-country basis	this Project will aim to be a leading example and 'best practice' for cross-border management in relation to trade, the environment, and conflict resolution through collaborative interaction and engagement between the participating countries in the western Indian Ocean region
Advancement of awareness, dialogue and action on sensitive and or emerging development issues that benefit strongly from multi-country and regional experiences and perspectives	The entire approach of the SAPPHIRE project focuses on developing and advancing awareness, dialogue and action related to development issues which, by nature of their shared jurisdiction, are sensitive, especially in the context of both transboundary impacts and transboundary management measures. A pragmatic and effective multilateral management approach will need to evolve based on experience and perspective
Promotion of experimentation and innovation to overcome institutional, financial and/or informational barriers that may be too high for an individual country to surmount	The agreement between the participating countries to adopt the Strategic Action Programme as a foundation for joint management of the WIO LMEs is, by very nature, experimental and innovative. This huge area can only be effectively administered and monitored at a regional level and through full cross-sectoral engagement.
Generation and sharing of development knowledge, experience and expertise – for instance, through South-South and triangular cooperation	The project would aim to assist the countries in identifying development knowledge, experience and expertise that can assist in the implementation of the SAP and the adoption of a blue/ocean economy approach. Where appropriate, cooperative activities outside of the countries with other relevant coastal and ocean regions will be explored.

It is also noteworthy that the UNDP African Regional Programme further emphasises the need for improvements in public-private partnerships along with a sustainable human development approach, with emphasis on capacity development. The Project has activities and outputs that will focus specifically on exploring the opportunities for developing public-private partnerships which may support the SAP implementation approach, particularly in relation to the areas beyond national jurisdiction which overlay the shelf itself. Several of the outputs and activities in various components will address the human development needs and will emphasise capacity development within the countries.

In relation to the Millennium Development Goals, the SAPPHIRE project will primarily address Goal 7 - Ensure Environmental Sustainability, and Goal 8 - A Global Partnership for Development. Under Goal 7, the project would be addressing Target 7A by integrating the principles of sustainable development into country policies and programmes and Target 7B which looks at reducing biodiversity loss. Under Goal 8, the Project would be addressing Target 8A in developing an open, rule-based, predictable, non-discriminatory trading system; and Target 8B by addressing the special needs of … Small Island Developing States.

The 2015 Sustainable Development Goals have now been proposed for consideration by the UNGA. This project and the Joint Management approach speak to a number of these goals, but

most specifically to Proposed Goal 14, which deals with the Conservation and Sustainable Use of the Ocean, Seas and Marine Resources for Sustainable Development.

There are a number of further global benefits that will come out of the SAPPHIRE project. For example, through the evolution of the TDA and consequent SAP development process, the countries of the region have expressed the intent of reforming the South West Indian Ocean Fisheries Commission from an Advisory body (FAO Article VI) to a full Management body (under FAO Article XIV), including the identification of appropriate financial mechanisms. This will represent a major reform with consequent benefits to fisheries and to biodiversity (the latter in the context of an ecosystem approach to fisheries management).

SAPPHIRE will also build on the growing involvement and interest demonstrated by the private sector and marine industry, particularly with and through the WOC, in cooperating with the countries and with the partners to develop a sustainable approach to management of the goods and services associated with the Western Indian Ocean Large Marine ecosystems. This will include direct involvement of the maritime industry in the actual management process and in the reduction of impacts from shipping and pollution, particularly through the WIOSEA partnerships which represent some of the world's major global maritime private sector bodies including major leaders in the oil and gas industry, shipping and freight, and recreational cruise lines.

SAPPHIRE will also build long-term partnerships (through WIOSEA) to carefully monitor any changes in the status of the region's marine ecosystems, the effects and impacts of those changes on the socioeconomic welfare of the countries, and develop mechanisms for mitigating or adapting to those effects and impacts through adaptive management and policy realignment.

SAPPHIRE will further demonstrate and replicate best practices in strengthening the human and institutional capacities of the countries to respond to the requirements and priorities for monitoring and management and to encourage the support for further training of urgent and necessary skills in the region. These best practices and lessons will be made available to the LME community and to ICZM processes globally including through IW:LEARN and LME:LEARN.

These benefits will extend to all three LMEs in the western Indian Ocean (a management area covering some 27% of the entire Indian Ocean). Thus, there will be direct (long term) benefits to many of the world's more threatened marine habitat types found in this area of the world. The development of new management strategies for ABNJ, including seamounts and deep-water habitats, will address an outstanding need to provide a measure of oversight and monitoring of those areas that have, until now, been a relative free-for-all in terms of access and uncontrolled exploitation, with potentially dire consequences to these unique and globally significant deep sea habitats which tend to support very slow growing organisms, many of them new to science.

Many of the deliverables and reforms that would arise from this project would also support a number of global environmental commitments and objectives including:

Rio +20 Resolution: This recognises:

- the need to give more attention to Africa and the lag in commitments previously made at major UN summits and conferences (particularly those contained in the Millennium Declaration, the UN Declaration on NEPAD, The Monterrey Consensus and the Johannesburg PoI and the outcomes of the 2002 World Summit on Sustainable Development);

- the importance of promoting the science-policy interface;
- strengthening the participation of countries in international sustainable development processes through capacity building and assistance to conducting their own monitoring and assessments;
- recognising the importance of also building capacity in developing countries to benefit from conservation and sustainable use of the oceans and seas and their resources and emphasising, in this regard, the need for cooperation and partnership in marine scientific research, particularly in the implementation of UNCLOS;
- commit to urgently address the issue of conservation and sustainable use of marine biological diversity in ABNJ;
- commit to take action to reduce the incidence and impacts of pollution on marine ecosystems, including through effective implementation of relevant conventions and adoption of coordinated strategies to this end (including measures to control introduction of alien invasive species);
- supporting international cooperation toward realising the social, economic and environmental benefits from the conservation and effective management of coral and mangrove ecosystems;
- recognise the importance of area- based planning and conservation measures;
- encourage the Global Environment Facility to take additional steps to make resources more accessible to meet country needs for the national implementation on international commitments, in particular in Africa;
- recognise that a dynamic, inclusive and well-functioning and socially environmentally responsible private sector is a valuable instrument that can offer a crucial contribution to economic growth, reducing poverty and promoting sustainable development.

Aichi Biodiversity Targets: The project would realise all of the Strategic Goals (and their targets) namely:

A – Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;

B – Reduce the direct pressures on biodiversity and promote sustainable use;

C – Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;

D – Enhance the benefits to all from biodiversity and ecosystem services;

E – Enhance implementation through participatory planning, knowledge management and capacity building.

Sustainable Development Goals: The project would also aim to contribute to the realisation of many of the SDGs currently under formulation and adoption. The specific draft goals that the project can support the participating governments to meet include:

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3. Ensure healthy lives and promote well-being for all at all ages
1. Achieve gender equality and empower all women and girls
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
10. Reduce inequality within and among countries

12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

2.5. Innovativeness, Sustainability and Potential for Scaling Up

The project will deliver a number of innovative approaches and mechanisms including:

A) An active Science-Based Governance (SBG) approach using a comprehensive and cross-sectoral peer-review mechanism reviewing 'trends' that can be acted on in terms of adaptive management and with a feedback mechanism to assess the effectiveness of this approach.

B) Partnering with industry in this SBG process so that industry is involved in data collection and analysis, quality assurance, and actual consideration and adoption of management and regulatory agreements;

C) Engaging communities directly into the management process and demonstrating the value of the ecosystem approach through local economic development processes;

D) Innovative new management processes for areas with insufficient or absent management mechanisms (particularly ABNJ and ECS and Deepwater VMEs);

E) A comprehensive CB&T approach focusing on a Pan-African delivery and using a suite of partners from the region and internationally.

The formal partnership arrangements being adopted through the WIOSEA will provide significant sustainability to all components and to the SAP objectives and activities in the long-term. Country endorsement and agreement for review and revision of both the TDA and SAP processes also demonstrates commitment and political sustainability.

There is significant potential for scaling up the following activities that would be undertaken by the project:

1) Demonstration of national level intersectoral management mechanisms for an ecosystem-based approach that links into the regional strategy;
2) Demonstrations to pilot the engagement of communities into the LME management process;
3) Adoption of national-level community advisory committees;
4) PPP to pilot the involvement of the maritime industry in the entire management process;
5) Innovative management processes piloted, especially for ABNJ, ECS and vulnerable deep-water ecosystem components;
6) The adoption of a pan-African partnership for ocean governance based in the WIO region but with global networking.

2.6. Stakeholder Involvement and Collaboration

For this SAP implementation strategy to be effective there will need to be close engagement of and collaboration with the various stakeholders in the region. Furthermore, certain stakeholders will take responsibility for certain activities and deliverables by virtue of their roles and functions as being the national or regional body with formal responsibility for those specific focal or

thematic areas. In this latter case, the SAPPHIRE Project management would cooperate closely with such bodies to ensure that the funding to support such activities is made available as requested and as appropriate. The following analysis and proposed approach identifies stakeholders at the broad, sectoral level but also focuses on some very specific partners that will be the focus of close cooperation and of support from the SAPPHIRE Project.

Stakeholders at the LME scale are implicitly numerous and have diverse needs from a SAP implementation project, may require disparate communication styles and can impact ecosystems (and in turn depend on ecosystems) in a multitude of ways. They include the governments of participating countries and their mandated institutions (including provincial and local governance structures); international and regional intergovernmental bodies (IGOs); Donors; Implementing and Executing Agencies; Project Consultants and Staff Members; academic research institutions; educational institutions; other GEF funded projects; non-GEF funded projects; neighbouring and global LMEs; NGOs, CBOs and other Civil Society groups; various private sector industries and “the general public” and more specific “general public” stakeholder groupings (e.g. “artisanal fishers”, “coastal communities”, etc.) who directly (and often indirectly) interface with marine and coastal environments.

In each preceding example where an organisation is given, the need to interface at the individual (e.g. staff member or citizen) level as well as at overall organisational scale is implicit. Given the size of an LME, “the general public” can include stakeholders at global scale, particularly where ocean/atmosphere interactions and/or global impacts of activities can be felt “downstream”. Equally, “stakeholders” from areas outside of the LME (“upstream”), and particularly inland (>100km from coast) terrestrial stakeholders within the countries bordering the LMEs, may act with profound impacts on LMEs and, in turn, be dependent on or enjoy goods and services either directly produced by the LME or transported across it - even if they live far inland.

Stakeholders play two major role types with respect to SAP Implementation Projects; they can either be “recipients” of SAP Implementation Activities (through direct or indirect access to information, training and other activities undertake by such a project), or as “contributors” to, or ‘coordinators’ of, SAP Implementation (through their actions, contributions of data/information/research or in cash/in kind support). Often one can expect an overlap between “recipients” and “contributors”. Stakeholders can also be expected to fall across a spectrum of levels of “participation” in SAP Implementation, from very active, direct roles in SAP implementation activities to indirect “participation”, such as benefiting from changes in management of the ecosystem through the actions of others (e.g. a member of the general public enjoying the results of SAP Implementation decisions of policy makers or managers). Stakeholder actions can also occur outside of the direct ambit of the SAP Implementation Project; many millions of “general public” stakeholders impact and/or enjoy ecosystem goods and services, irrespective of their level of direct participation in SAP Implementation project activities; such actions and needs still require consideration within a holistic SAP Implementation process.

To a large extent, SAP Implementation activities are supported by public monies (either from national levies [taxation] or through international donations) and this should be reflected through comprehensive availability of information and results from such projects within the public domain and which support the wellbeing of society and ecosystem functioning as a whole.

The table below more completely considers the various stakeholders and their general and specific roles and responsibilities toward LME management and SAP Implementation. For the sake of brevity and avoiding repetition, the name of each and every agency, organisation or

other body in each country and so on are not specified below; instead, we have “amalgamated” these into types of stakeholder which we feel best represents the collective “profile” of various kinds of stakeholder that will contribute toward and benefit from successful SAP Implementation; equally, it can be expected that the list of stakeholders will evolve during SAP implementation.

Notwithstanding this general review of stakeholder-types, section *2.7 Primary Stakeholders to the Project* follows this table, with a more specific description of interactions of each primary stakeholder.

Table 6: Comprehensive List of Stakeholder types within the countries and the region that would be expected to interact with the SAPPHIRE project and its activities, especially in the context of SAP implementation

Stakeholder	General Roles and Responsibilities	Specific Responsibilities in Relation to SAP implementation
Country (Government) Stakeholders Each country participating in the SAP Implementation Project will have a range of Ministries and other similar government bodies which directly interface with SAP Implementation Activities, both through activities specified in this Project Document and indirectly through general activities which support the vision and goals envisioned within the SAP. If the precise body listed below is not present in a particular country, the most appropriate similar body (or bodies if the anticipated roles/responsibilities are shared) can be assumed. In addition, it can be assumed that line agencies that fall under the purview of the relevant ministries are included as stakeholders.		
Fisheries / Aquaculture / Agriculture / Forestry Ministries	Oversee and regulate fisheries / aquaculture / agriculture / forestry activities within EEZs	Promulgate reformed fisheries & aquaculture policies/acts Enforce fisheries & aquaculture legislation, catch quotas Ensure subsidies do not drive unsustainable activities Implement long-term rights-based fishery regulations which reduce problems associated with “tragedy of the commons” scenarios Reduce environmental impacts (bycatch, phase out harmful gears, poor land use in aquaculture, inappropriate species etc.) Ensure a fair balance between industrial/commercial fisheries and artisanal/subsistence fisheries where resource use conflicts exist Ensure adequate network of fisheries extension officers or similar structures to support, monitor and control artisanal and subsistence fisheries Ensure adequate return on resource rent to nation from resource use Ensure compliance with relevant regional and international standards and policies

Environment Ministries	Oversee and regulate activities with environmental impacts within EEZs	Promulgate reformed environmental policies & acts Enforce policies, acts & regulations Work with other Ministries and stakeholders to reduce negative activities and encourage sustainable ones Create and sustain protected areas Ensure compliance with relevant regional and international standards and policies
Education Ministries	Oversee and regulate appropriate education standards and curriculum content	Ensure citizens are equipped with globally competitive levels of knowledge and skills to be able to pursue sustainable livelihoods, including regular revision of syllabus/curriculum to reflect changing knowledge Ensure citizens have basic literacy Ensure citizens have adequate environmental knowledge to assess the impacts of their own actions Ensure the provision of ongoing adult education Partner with projects, NGOs etc. to deliver effective educational resources and teacher training in their use in support of curriculum/syllabus targets/goals Support higher education institutions and the creation of a “knowledge economy”
Mining/Energy Ministries	Oversee and regulate mining and related activities	Promulgate reformed mining and energy policies/acts Enforce mining and energy policies Ensure adequate return on resource rent to nation Work with other Ministries and stakeholders to reduce negative activities and encourage sustainable ones Ensure compliance with relevant regional and international standards and policies
Maritime Safety Organisations (May be Ministry of Transport or other appropriate body)	Oversee, regulate and coordinate appropriate standards and SOLAS responses	Promulgate reformed maritime safety policies/regulations/acts Create national and support regional maritime safety activities (SOLAS, maritime pollution, Maritime Domain Awareness etc.) Enforce maritime safety regulations Work with other Ministries and stakeholders to reduce negative activities and encourage sustainable ones Ensure compliance with relevant regional and international standards and policies

Foreign Affairs Ministries	Coordinate and carry out international government processes	Cooperate with regional and international bodies including other nations and intergovernmental bodies Negotiate appropriate treaties, protocols and conventions Facilitate dialogue between country and international fora Ensure that international obligations are met by domestic law in partnership with other relevant ministries and governmental processes
Finance Ministries	Provide and coordinate adequate financial resources to relevant government departments and ministries to ensure ongoing SAP Implementation	Support other Ministries and government bodies through effective provision of financial resources commensurate to the task Ensure effective, transparent and accountable financial management within government Seek out and eliminate corrupt practices throughout government (coordinate systemic activities to this end) Phase out harmful subsidies and encourage/introduce more sustainable ones Facilitate effective and fair collection of tax and other levies that support government activities
Tourism Ministries	Oversee and regulate tourism activities	Ensure legislation adequately covers tourism sector (with specific reference to environmental sustainability) Ensure tourism-related legislation is enforced Transform tourism industry to ensure adequate returns to nation and local communities Work with other Ministries and stakeholders to reduce negative activities and encourage sustainable ones Ensure compliance with relevant regional and international standards and policies
Science and Technology Ministries	Support national systems of innovation and research activities	Support acquisition and maintenance of required scientific instrumentation Support higher education and research organisations Liaise with complementary government bodies to support research and development activities Partner with private sector to enhance creation and commercialisation of novel intellectual property Work with international donors and other appropriate bodies to create bilateral and multilateral research agreements and associated financial support mechanisms Support the creation of a “knowledge economy” particularly through partnerships with educational institutions and private sector activities

Law enforcement	Oversee and enforce applicable laws and regulations	Support ministries and their mandated agencies in the monitoring, control and surveillance of marine and coastal activities Ensure law enforcement officials are adequately informed about current and future legislation Ensure fair and effective prosecution of transgressors
Coastguard/Navy	Oversee and enforce regulations at sea	Support ministries and their mandated agencies in the monitoring, control and surveillance of marine and coastal activities Ensure officials are adequately informed about current and future legislation Support response to maritime emergencies (SOLAS/Search and Rescue and pollution) Support nationwide and regional Maritime Domain Awareness activities
Provincial governance structures	Oversee and regulate all activities at provincial level	Support Ministries through effective implementation of Acts/Policies/Regulations at provincial level. Adequately support local governance structures (municipalities, town councils, traditional leadership structures etc.) through provision of (as relevant to local conditions) financial support, information resources and capacity-building programmes
Local governance structures	Oversee and regulate activities at local (settlement) scale	Support Ministries and Provincial governance structures by effective implementation of Acts/Policies/Regulations at local level, including ensuring that local developments adequately follow national EIA and Planning Permission processes including ICZM and Marine Spatial Planning Facilitate dialogue between local communities and regional and national governance structures and dispute resolution Support local communities to pursue sustainable development activities and livelihoods (Local Economic Development, Locally Managed Marine Areas) Liaise with local law enforcement and other relevant bodies as required
Trade and Industry Departments/Ministries	Oversee and regulate trade and industry activities	Ensure relevant legislation is promulgated which supports sustainable development whilst at the same time safeguarding long term environmental and social sustainability. Work with relevant government partners to adequately regulate and control industrial and commercial activities Work with relevant industry stakeholders
International & Regional Stakeholders A wide range of regional and international bodies are stakeholders in the SAP Implementation process.		

Donors	Provide catalytic funding for SAP Implementation activities	Provide support to regional SAP implementation activities Ensure adequate financial and procedural oversight of project activities Facilitate regional and international dialogue and networking
IGOs	Support sustainable LME goods and services through appropriate international conventions and protocols	Create, maintain and update appropriate conventions and protocols Support country activities to ratify/accede to relevant conventions/protocols Support country "domestication" of conventions and protocols within national legislation Assist in international/regional mediation/dispute resolution as required and where mandated by organisational statutes
RFMOs	Support sustainable fisheries use through appropriate regulations, quotas and agreements	Ensure and support adoption of Ecosystem Approach to fisheries management Revise policies and procedures as relevant Ensure countries adequately enforce quotas and other agreements reached through RFMO activities and negotiations Ensure adequate coordination with neighbouring RFMOs as required (e.g. to deal with migratory stocks) Ensure adequate coordination with "sister RFMOs" in the same area but with different mandate (i.e. between "tuna" and "non-tuna" RFMOs)
NGOs	Support SAP implementation through complementary activities	Work with relevant stakeholders to sustain ecosystem goods and services Create and sustain partnerships with other stakeholders to attain desired EQOs
CBOs	Support SAP implementation through complementary activities	Work with relevant stakeholders to sustain ecosystem goods and services Create and sustain partnerships with other stakeholders to attain desired EQOs Facilitate dialogue between communities and other stakeholder groups
Projects	Support SAP implementation through complementary activities	Work with relevant stakeholders to sustain ecosystem goods and services Partner with other regional and international projects to share data and information, pool resources, explore synergies and ensure that activities are not duplicated or repeated Create and sustain partnerships with other stakeholders to attain desired EQOs
Research Organisation Stakeholders A broad range of research organisations/institutions will play a vital role in SAP Implementation through providing the data, analysis and insights into the ecosystem required to develop and maintain adaptive management processes at ecosystem scale.		

Research Associations	Coordinate and support regional research activities	Support regional research activities Monitor EQOs and other Indicators Undertake rigorous peer review Support professional development of peers (including capacity development) Support regional information exchange Support academic publishing
Oceanographic Research Organisations (encompassing all "oceanographic" studies, including fisheries, physical, chemical and biological oceanography & geoscience)	Conduct oceanographic research, both "pure" and "applied"	Conduct multidisciplinary oceanographic research activities for both pure and applied science Monitor EQOs and other Indicators Ensure rigorous academic standards are upheld Facilitate knowledge-sharing through publication, researcher exchanges, sabbaticals and other mechanisms Support translation of scientific information into policy & management advice Support regional initiatives in the development of up-to-date educational materials and curricula/syllabi (at all levels from primary to postgraduate) Support capacity development Support higher education institutions Ascertain and provide for societal information needs Ensure research products are accessible to the general public
Socio-economic Research Organisations	Conduct socio-economic research	Conduct multidisciplinary socio-economic research activities Monitor EQOs and other Indicators Ensure rigorous academic standards are upheld Facilitate knowledge-sharing through publication, researcher exchanges, sabbaticals and other mechanisms Support evaluation of economic value of ecosystem goods & services Support translation of academic information into policy & management advice Support regional initiatives in the development of up-to-date educational materials and curricula/syllabi (at all levels from primary to postgraduate) Support capacity development Support higher education institutions Ascertain and provide for societal information needs Ensure research products are accessible to the general public

Higher Education Institutions	Conduct academic research and support the establishment of a knowledge society through undergraduate and postgraduate education	Undertake higher education including undergraduate and postgraduate degrees Monitor EQOs and other Indicators Undertake multidisciplinary and interdisciplinary research activities Partner with national, regional and international research institutions and other HEIs to ensure students are involved in cutting-edge research activities Ascertain and provide for societal information needs Support the creation of a "knowledge economy" through skilled graduates and by supporting commercialisation of novel intellectual property
Meteorological Organisations	Monitor weather and climate trends; provide information products to society	Create and sustain network of ocean/atmosphere monitoring instrumentation and long term datasets Create and sustain capacity for appropriate numerical modelling and forecasting Provide timeous information to society about severe weather, patterns, trends and climate change Monitor EQOs and other Indicators
Private Sector Stakeholders The Private Sector has a vital role to play in that it often represents a large source of environmental impacts which affect EQOs and also typically possesses the financial, infrastructural and technical means to affect real change, both through changing its own practices and by contributing to overall SAP Implementation activities.		
Private Sector Industry Bodies & Associations Within the SAPPHIRE project the focus will be on industries operating in the nearshore and offshore zones in particular the shipping and transport sector, energy sector (oil and gas exploration and extraction) and mining sector (mineral extraction from the seabed; deep sea mining) as well as the deep sea fishing industry (particularly those targeting seamounts)	Coordinate activities of organisations by sector	Coordinate industry participation in SAP Implementation activities by sub-sector (according to their membership), making full use of the partnership arrangements with the WOC Ensure comprehensive membership by majority of companies in that sub-sector Coordinate with other industry bodies as required at national, regional and international levels Ensure members are able to both receive and contribute information concerning SAP implementation, EQOs and overall LME concerns Ensure members uphold relevant local, regional and international agreements, regulations, laws, conventions and protocols Ensure ethical business and investment practices Require members to consider a move towards reporting systems and practices that include environmental and social well-being (for example "triple bottom line" accounting)

Oil/Gas/Mineral Companies	Extract oil, gas and minerals without unduly impacting on the environment	Extract oil, gas and minerals effectively and with minimal impacts on ecosystem and its goods and services Ensure adequate provision to respond to accidents (finance, equipment, trained human capacity) Support national and regional activities as appropriate (e.g. training, response activities) Uphold the highest safety standards Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns on resource rents realised (through tax or other revenues, CSR programmes, equitable labour practices etc.).
Shipping & Transport Companies	Provide safe and effective transport links to enable global and regional trade	Provide safe and efficient transport arrangements which support the global economy, contribute to sustainable economic development and facilitate the collection of relevant national customs revenues Support port state controls Ensure adequate provision to respond to accidents (finance, equipment, trained human capacity) Support national and regional activities as appropriate (e.g. training, response activities) Uphold the highest safety standards Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns on resource rents realised (through tax or other revenues, CSR programmes, equitable labour practices etc.).
Fishing Companies	Sustainably harvest marine living resources	Ensure compliance with relevant regulations (including bycatch reduction, quotas, closed areas and seasons, etc.) Minimise resource use conflicts Ensure adequate provision to respond to accidents (finance, equipment, trained human capacity) Support national and regional activities as appropriate (e.g. training, response activities) Uphold the highest safety standards Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns on resource rents realised (through tax or other revenues, CSR programmes, equitable labour practices etc.).

Tourism Companies	Provide sustainable services to global, regional and national leisure markets	Ensure the environment (which ultimately represents the largest "draw" for most tourists) is effectively protected through careful use of resources and disposal of wastes, environmentally sensitive land use and construction (including EIA) and appropriate regulation of guest activities Uphold the highest safety standards Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns on resource rents realised (through tax or other revenues, CSR programmes, equitable labour practices etc.).
Construction/Civil Engineering Companies	Construct and maintain infrastructure with due regard to environmental impacts	Ensure construction activities pay due attention to environmental concerns Follow stringent EIA process Ensure adequate ICZM and/or Marine Spatial Planning is undertaken Support national and regional activities as appropriate (e.g. training, response activities) Uphold the highest safety standards Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns (through tax or other revenues, CSR programmes, equitable labour practices etc.).
Financial Services Companies	Provide facilities for society to access sustainable financial resources	Provide adequate financial resources to society at fair rates, including to low income individuals Consider creation of specific "microfinance" products Support "un-banked" in learning about financial systems and planning including savings, loans and investments, perhaps in partnership with education ministries Provide insurance products which support society by mitigating the costs of adverse events Ensure adequate financial resources and investments are available to meet obligations Ensure ethical business and investment practices Meet or exceed relevant environmental standards Contribute to societal well-being through fair returns (through tax or other revenues, CSR programmes, equitable labour practices etc.).

"General Public" Stakeholders		
The label "general public" is too broad to be of use "on the ground"; it must be broken up into "constituencies" which enable the unique needs and impacts of each stakeholder to be more comprehensively addressed; even those categories listed below are not sufficiently fine scale, as different communities, for example, may have very different needs and challenges (i.e. contrast the "community" of a coastal megacity with that of a small village, or the needs of a shore-based fisher with one operating at sea). It is a significant challenge for a SAP Implementation Project to interface adequately with all coastal stakeholders at this level; whilst significant attention will be paid to those communities involved in specific SAP implementation demonstration/pilot activities, to a large extent, interfacing at this level must be a function of local, provincial and national governments – particularly for sustainability.		
Coastal Communities	Pursue sustainable livelihoods	Follow relevant ICZM and Marine Spatial Planning processes Consider impacts of activities on marine and coastal ecosystems goods and services Consider impacts of climate change, severe weather and sea level rise in planning
Artisanal and Subsistence Fishers	Pursue sustainable livelihoods	Undertake sustainable fishing activities Respect closed areas, seasons and restricted species Mitigate impacts by phasing out unsustainable gears and techniques and reduce bycatch (where relevant) Follow fair dispute/conflict resolution processes with due regard for fellow fishers, both local and migrant and with commercial/industrialised fisheries Undertake sustainable, collaborative resource use management
Coastal Resource Users (non-fisheries)	Pursue sustainable livelihoods	Undertake sustainable resource use activities Undertake sustainable, collaborative resource use management Respect closed areas, seasons and restricted species
"The general public"	Pursue sustainable livelihoods; ensure activities do no unduly affect EQOs; provide ongoing tax revenues to support management activities.	Ensure personal activities are conducted with due regard paid to social and environmental impacts Ensure children (of both genders) pursue education Pursue adult education and other knowledge enrichment opportunities Report unlawful activities Support collaborative management of ecosystem goods and services

2.7. Primary Stakeholders and their relationship to the SAPPHIRE Project

The primary stakeholders to this Project will be the governments of the countries, their nationally responsible institutions, and the regional intergovernmental organisations that have been mandated by the countries to assume responsibility for specific issues and functions. It should be noted here that the UNDP SAPPHIRE Project cannot of itself implement the Strategic Action Programme (SAP). The Project represents a set of funding and support activities agreed by the countries as being appropriate (in terms of finance and collaboration) to assist the countries and the mandated regional bodies (i.e. the primary stakeholders of SAPPHIRE) to implement the SAP as appropriate and as agreed by those countries and those regional bodies.

National Governments and Institutions:

All of the National Governments have specific institutions that are responsible for elements related to LME management and SAP implementation (e.g. fisheries departments, environmental affairs, shipping and transport, tourism, etc.). The SAPPHIRE project will work closely with the institutions that the governments have identified as having these responsibilities and will provide support and funding (as appropriate and agreed) in ensuring that these institutions and the individuals within them have sufficient capacity to effect SAP implementation requirements and activities within their countries.

Intergovernmental Organisations and similar regional entities:

The governments of the region have signed up to certain agreements, convention and protocols (related to SAP implementation) that formally and legally specify the intentions of the governments to take certain actions. These include:

Nairobi Convention

- Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region.
- Protocol Concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region.
- Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (LBSA Protocol).
- An ICZM Protocol has been drafted (as of Sept 2013,) is currently under negotiation.

IOTC

The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organisation established under article XIV of the FAO constitution and has the mandate to manage tuna and tuna-like fisheries in the Indian Ocean and adjacent seas. The objective of the Commission is to promote cooperation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilisation of stocks covered by this Agreement and encouraging sustainable development of fisheries based on such stocks.

SWIOFC

The South-West Indian Ocean Fisheries Commission (SWIOFC) was established in 2004 by Resolution 1/127 of the FAO Council as an Article VI FAO Regional Fishery Body. Consideration is being given to transforming SWIOFC into an Article XIV body. It only covers (non-tuna) fishing activities within EEZs.

Indian Ocean Commission

IOC is an intergovernmental organization that is composed of five African Indian Ocean nations: Comoros, Réunion (a department of France), Madagascar, Mauritius and Seychelles. Notwithstanding their different characteristics (Reunion as a French department; Mauritius and Seychelles as Middle-Income Countries whereas Comoros and Madagascar are amongst the Least-Developed Countries), the five islands share geographic proximity, historical and demographic relationships, natural resources and common development issues. IOC's principal mission is to strengthen the ties of friendship between the countries and to be a platform of solidarity for the entire population of the African Indian Ocean region. IOC's mission also includes development, through projects related to sustainability for the region, aimed at protecting the region, improving the living conditions of the populations and preserving the various natural resources that the countries depend on. Being an organisation regrouping only island states, the IOC has usually championed the cause of small island states in regional and international fora.

As well as the above primary IGOs operating specifically in the WIO region, the governments are party to and support a number of other regional bodies including the Intergovernmental Oceanographic Commission (of UNESCO) and its African Sub-Commission.

Recognising that these IGOs have a formal and legal responsibility to the countries to deliver certain functions and activities, the UNDP/GEF SAPPHIRE Project (as a support and funding mechanism) will cooperate closely with, and be available to these primary regional stakeholders to assist and support them (as requested by the stakeholders themselves) in implementation of those SAP activities and deliverables that are relevant and pertinent to their mandates and responsibilities.

Furthermore, and in this context of close collaboration with the primary stakeholders, it is understood any policy process or dialogue that might take place within SAPPHIRE or through its various working groups, Steering Committee and *ad hoc* bodies would require discussion within the appropriate policy organs of the regional IGOs and formal associations; and any decisions relating to such policy discussions would therefore also need to be discussed and agreed as required and at that same level within these regional bodies.

Non-Governmental Organisations and similar entities active in the Region:

A large number of NGOs are active in the WIO region; a full list of them or complete discussion of their activities is outside the scope of a Project Document. However, NGOs possess a number of strategic advantages as partners in Project and SAP Implementation, including extensive networks of stakeholders at all levels of society, significant resources (human, infrastructural and financial) and commonly very relevant programmes and activities which align with the objectives and vision of the Project Document and SAP. In the interest of ensuring maximum benefits to the countries, economies, people and environment of the region, harmonised, synergistic activities which eliminate unnecessary duplication of activities will be sought with NGO partners.

The WIO-LaB project fostered the creation of a Western Indian Ocean Consortium of NGOs (WIO-C). WIO-C is an alliance of NGOs in partnership with intergovernmental organisations, whose main purposes are to support synergy in programmes of work on marine and coastal ecosystem management and promote knowledge and information sharing amongst stakeholders in the Western Indian Ocean region. WIO-C provides a mechanism for NGOs to

anchor activities in the Nairobi Convention and other intergovernmental processes. WIO-C will act as a coordinating “hub” to facilitate Project-NGO cooperation activities.

Although not strictly either an IGO or an NGO, the IUCN is also an important strategic partner in project delivery, being one of the early founding members of the Western Indian Ocean Sustainable Ecosystem Alliance partnership supporting ASCLME in TDA-SAP development and now SAPPHIRE in SAP implementation.

WWF has been highly active in the WIO region for many years. The development of the SAPPHIRE Project has given specific consideration to strengthening the working partnership with this respected and well-established body, particularly in areas relating to economic evaluation (through piloting and demonstrations such as the Natural Capital Development for the Primeiras and Segundas Multi-use Conservation Area in Mozambique), in strengthening efforts toward more effective artisanal fisheries management linked to community welfare, and in furthering the need for more effective translation of science and knowledge into adaptive management and policy realignment.

Conservation International is another NGO that is expanding its interest in the region and is also working closely with WWF (again on the Natural Capital Development initiative). The SAPPHIRE project has initiated discussions for closer collaboration through a formal agreement with this global initiative, particularly working closely on developing approaches to locally managed marine areas; climate change and blue carbon; and support to the Ocean Health Index. Both SAPPHIRE and CI have a strong interest also in building the knowledge, data, capacity and policy networks and mechanisms in the region to promote leadership and new models in the field of sustainable development, and to increase momentum for positive change.

A number of NGO groups in the region are collaborating on developing initiatives related to SAPPHIRE and the ecosystem-based management approach. One example of this is a new sub-regional initiative, which is under development and that is closely complementary to SAPPHIRE. The Northern Mozambique Channel initiative (NMCi), focusing on that particular sub-region of the WIO, has grown out of a number of technical processes, including ASCLME and a World Heritage assessment. These have identified the sub-region as having globally unique oceanography combined with having the highest diversity of shallow marine species in the Indian Ocean – a second hotspot of marine biodiversity after the Coral Triangle region in southeast Asia. Human population and economic growth in this region are also predicted to be among the highest in Africa in coming decades, thanks to the biological richness of the region, and new discoveries of globally significant natural gas deposits. The NMCi will focus on the particularities of this five-country sub-region (the NMC includes Comoros, Madagascar, Mozambique, Tanzania and France) to promote sustainable and equitable development that enhances natural and social assets. It will align and coordinate with SAPPHIRE and other regional initiatives to a) enhance implementation of activities, b) replicate activities in the sub-region that may be implemented elsewhere and c) integrate marine ecosystem-focused activities in a sustainable livelihoods/development framework. Close coordination between NMCi and SAPPHIRE will enhance mutual interventions and improve delivery of benefits from GEF investment.

The South Indian Ocean Fisheries Agreement (SIOFA) is not a Regional Fisheries Body, but rather a Regional Fisheries Arrangement. The objectives of the SIOFA are to ensure the long-term conservation and sustainable use of the fishery resources in its area of competence through cooperation among the Contracting Parties, and to promote the sustainable development of fisheries, taking into account the needs of developing States that are

Contracting Parties to the Agreement, and in particular the least-developed among them and small island developing States.

There are many other on-going collaborative initiatives between SAPPHIRE and its partners (e.g. CORDIO, BirdLife, etc.) which are too numerous to list in a document of this nature, but which will be consolidated through specific activities and agreements.

Coordination with Other Projects and Programmes in the Region:

Annex 4 provides a comprehensive list of the various regional and bilateral Project and Programmes that are operating in the western Indian Ocean region and dealing with marine and coastal issues. SAPPHIRE will, as during the ASCLME Project, coordinate and cooperate closely with these initiatives. One of the Components of the SAPPHIRE project will be specifically addressing such coordination and will be re-establishing the Regional Project Coordination Forum that was originally convened under the ASCLME Project.

Regional Economic Agreements and Commissions:

A number of regional economic agreements and commission straddle the project region. Recent discussions with the African Union and NEPAD (the New Partnership for Africa's Development) have highlighted the fact that these RECs and REAs should be involved as stakeholders in SAP Implementation. The Strategic Action Programme itself recognises this and includes representation from appropriate African Economic Communities and Development Bodies in the institutional and management structures for SAP Implementation.

Table 7 shows the linkages between the SAPPHIRE countries and the various economic bodies of the region.

Table 7: Western Indian Ocean SAP Implementation Countries versus membership of RECs and other Economic Agreements

LME SAP Countries	RECs and Agreements			
	COI	COMESA	EAC	SADC
Comoros	X			
Kenya		X	X	
Madagascar	X	X		X
Mauritius	X	X		X
Mozambique				X
Seychelles	X	X		X
Somalia				
South Africa				X
U.R. of Tanzania			X	X

These are:

COI: The Indian Ocean Commission (*Commission de l'Océan Indien*) is an intergovernmental organization that was created in 1982 at Port-Louis, Mauritius and institutionalized in 1984 by the Victoria Agreement in the Seychelles. IOC is composed of five countries in the Indian Ocean, these are: Union of the Comoros, France/Reunion Island, Madagascar, Mauritius and Seychelles. Notwithstanding their different characteristics (Reunion is a French department; Mauritius and Seychelles are Middle Income Countries whereas Comoros and Madagascar are amongst the Least Developed Countries), the five islands share geographic proximity, natural resources and common development issues. IOC's principal mission is to strengthen the ties of friendship between the countries and be a platform of solidarity for the entire population of the Indian oceanic region. IOC's mission also includes development, through projects related to sustainability for the region, aimed at protecting the region, improving living conditions of the populations and preserving the very natural resources that the countries depend on. Being an organisation regrouping only island states, the IOC has usually championed the cause of small island states in regional and international fora.

COMESA: Common Market for Eastern and Southern Africa is a free trade area with nineteen member states stretching from Libya to Zimbabwe. COMESA was formed in December 1994, replacing a Preferential Trade Area which had existed since 1981. Nine of the member states formed a free trade area in 2000 (Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe), with Rwanda and Burundi joining the FTA in 2004, the Comoros and Libya in 2006, and Seychelles in 2009. In 2008, COMESA agreed to an expanded free-trade zone including members of two other African trade blocs, the East African Community (EAC) and the Southern Africa Development Community (SADC). COMESA is also considering a common visa scheme to boost tourism.

EAC: The East African Community is an intergovernmental organisation comprising five countries in the African Great Lakes region in eastern Africa: Burundi, Kenya, Rwanda, Tanzania and Uganda. In 2008, after negotiations with the Southern Africa Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA), the EAC agreed to an expanded free trade area including the member states of all three. The EAC is an integral part of the African Economic Community. In 2010, the EAC launched its own common market for goods, labour and capital within the region, with the goal of creating a common currency and eventually a full political federation. In 2013 a protocol was signed outlining their plans for launching a monetary union within 10 years.

SADC: The Southern African Development Community is an inter-governmental organization headquartered in Gaborone, Botswana. Its goal is to further socio-economic cooperation and integration as well as political and security cooperation among 15 southern African states (Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe). It complements the role of the African Union.

The 2nd Africa's Regional Fisheries Bodies (RFBs), Basin Commissions, Large Marine Ecosystems (LMEs) and Regional Economic Communities (RECs) Think Tank Meeting on Enhancing Coherence of Fisheries with the Regional Integration Agenda (Johannesburg, South Africa. 7-8 September 2013) agreed that there should be more integration and collaboration between the LME projects and the relevant RECs and RFBs. The SAPPHIRE project will endeavour to recognise this need and to collaborate closely with the RECs REAs and RFBs to address it wherever feasible.

Specific Coordination and Collaboration between SAPPHIRE and closely related partner activities

The Western Indian Ocean Marine Science Association shares a number of priorities to SAPPHIRE. In particular, both parties see localised community level management approaches as necessary for ecosystem management and both parties are also very keen to develop and evolve more effective mechanisms for translating science and knowledge into management and policy through a more streamlined process. In this context, SAPPHIRE will work closely with WIOMSA and, once again, act as a funding and support mechanism to focus on the delivery of these mutually recognised priorities.

The South West Indian Ocean Fisheries Commission (SWIOFC) is an advisory fisheries commission whose area of competence covers living marine resources within the Exclusive Economic Zones of coastal states of the SWIO. In accordance with its statutes, the functions of the Commission include to keep under review the state of fisheries resources, provide a sound scientific basis for fisheries management decisions and advise member governments and competent fisheries organizations on management measures. It has established a Scientific Committee to, *inter alia*, assess and report to the Commission on the status of stocks, and formulate recommendations on fisheries conservation, management and research for the Commission or individual members. SWIOFC acted as the Steering body for the World Bank implemented GEF South West Indian Ocean Fish Project. The SAP that was delivered as part of the outcome from the ASCLME project was a joint ASCLME/SWIOFP document. As a follow on to the UNDP ASCLME project (which was not a fisheries project) SAPPHIRE will not be addressing fisheries *per se*. Under the ASCLME Project the countries did request that ASCLME undertake a review of artisanal fisheries which was done and was included in the joint TDA process. Under SAPPHIRE, the National Focal Points have specifically requested the inclusion of an Outcome focusing on the role of artisanal fisheries at the community level to support the improved participation with and from artisanal fishing communities into the overall Ecosystem Based Management and SAP implementation approach. SAPPHIRE would collaborate carefully with SWIOFC and its Scientific Committee to ensure that whatever activities are supported do not clash with the aims of the Commission or, where there might be any overlap, that those SAPPHIRE activities are carefully directed by the Commission and its Scientific Committee.

In close association with SWIOFC, the World Bank is funding the South West Indian Ocean Fisheries Governance and Shared Growth Program (SWIOFish). The development objective of SWIOFish would be to increase the shared benefits from economic growth based on sustainable fisheries and coastal marine resources. A series of complementary regional investment and national investments would achieve the development objective by: (i) strengthening the countries' governance capacity to manage fisheries, including reducing illicit fishing activities; (ii) investments to increase the profitability and sustainable production of fisheries and aquaculture and the proportion of the value-added captured by the countries; (iii) supporting policies that share the benefits from sustainable use of marine resources among the economic agents and that prioritize pro-poor and community fisheries; and (iv) building robust regional cooperation on fisheries. The project would continue to support regional integration around fisheries management, while expanding the approach beyond research to strengthen sector governance and promote shared growth through harnessing the value of coastal and marine fisheries to national economies.

The International Maritime Organization has a large number of conventions and treaties of relevance to an integrated approach to the management of marine and coastal regions and the economic use of these areas. Some relevant to SAPPHIRE include:

- Convention on the International Maritime Organization (IMO CONVENTION) (in force);

- International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS 1974) (in force);
- Convention on the International Regulations for Preventing Collisions at Sea, 1972, as amended (COLREG 1972) (in force);
- Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, as amended (MARPOL 73/78);
- International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (INTERVENTION 1969) (in force);
- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW 1978) (in force);
- International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995 (STCW-F 1995) (not yet in force);
- International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM 2004) (not yet in force);
- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended (LC 1972) (in force);

Not all of these are necessarily ratified by all of the countries in the region, nor are adequate domestic legislative provisions necessarily made for their effective implementation either as flag states, through port state controls or general legal processes for relevant activities taking place within EEZs. It is also likely that old statutes, Acts or other domestic legal instruments relating to previous regulations or versions of Conventions and Protocols have not been repealed or replaced/updated and may complicate legal proceedings. The SAPPHIRE project would aim to continue the close collaboration with IMO that has been developed during the UNDP GEF ASCLME project and to negotiate and agree with the participating countries in expanding this working partnership through a memorandum of understanding for cooperation in mutually-important activities.

Cooperative Arrangements between UNDP GEF SAPPHIRE and UNEP GEF WIOSAP

There are a number of areas where poor coordination and an absence of collaboration could lead to potential overlap or duplication of various activities within projects underway in the region. In particular, the UNEP GEF Project on 'Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities implementation project aims to support and implement not only the SAP that arose from the Land-Based Activities Project but also the actual Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities that was formally adopted by the Nairobi Convention as a primary output from this LME project. The SAPPHIRE Project will cooperate and collaborate closely with the new UNEP WIO-LAB SAP Implementation Project, particularly in those areas of mutual interest as part of the overall WIO LMEs SAP Implementation at the 'source to sea' watershed, coastal and offshore level. It was inevitable that two separate projects addressing the same LMES and that overlapped physically within the coastal area would identify similar issues and consequent activities that need to be carried out jointly as part of SAP Implementation. In this context, the presence of more than one funding activity acts as an opportunity rather than duplication and will allow the two GEF agencies to collaborate in a more cost-effective and resources-useful manner. Once again, and as recognised above, the Nairobi Convention and its Protocols represent a formal management process to which SAPPHIRE can provide additional funds and

assistance in, for example, areas such as marine spatial planning, ecosystem valuation, selection and monitoring of LME indicators, stress reduction related to critical habitats, etc.

In view of the close relationship between the aims and objectives of these two projects, and the fact that both projects are addressing the implementation of a WIO LME Strategic Action programme, the two projects have agreed on an inter-project coordination strategy as follows:

Western Indian Ocean Inter-Project Coordination Note *(between UNDP-SAPPHIRE and UNEP-WIOSAP Projects*

Historical Background

UNEP, UNDP and WB all had interventions financed partly by GEF in the Western Indian Ocean region in the period of 2005-2014. The UNEP intervention, entitled *Addressing Land Based Activities in the Western Indian Ocean* (WIO-LaB)*,* ran from 2005-2010 and produced, among other achievements, a Transboundary Diagnostic Analysis (TDA) on land based activities and sources of pollution degrading the coastal and marine environment of the Western Indian Ocean and a Strategic Action Programme (SAP) on Protection of the Coastal and Marine Environment of the Western Indian Ocean from Land-based sources and activities. The UNDP-implemented *Agulhas Somali Current Large Marine Ecosystem Project* (ASCLME, 2007-2013) collaborated with the WB-implemented *South West Indian Ocean Fisheries Project* (SWIOFP, 2008 – 2012) and produced, among other achievements, a TDA of the Large Marine Ecosystems of the Western Indian Ocean – Baseline and Diagnostic Analysis – and a SAP for Sustainable Management of the Western Indian Ocean Large Marine Ecosystems (WIO LME TDA and SAP). The WIO LME TDA and SAP are supported by Marine Ecosystem Diagnostic Analyses (MEDAs) developed for each WIO country.

Current Status

Based on these SAPs, UNEP, UNDP and the WB have supported WIO countries to mobilize additional resources and partners (including the GEF) to support SAP implementation projects in the WIO region. The UNEP/GEF project *Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and* activities includes a $10,867,000 GEF grant and $66,710,185 in co-finance. The UNDP/GEF *Western Indian Ocean LMEs – Strategic Action Programme Policy Harmonization and Institutional Reforms (SAPPHIRE)* project (including the JMA component) has a total of $10,976,891 GEF grant and $310,389,375 in co-finance. These sister initiatives are currently under development and should begin implementation in 2015.

Opportunities for Strengthened Collaboration

The fact that the two sister projects will start implementation at about the same time provides the two GEF Implementing Agencies (UNDP and UNEP) with opportunities to strengthen collaboration between the two projects and harmonises the implementation of two complementary SAPs for the WIO. Such strengthened collaboration is desired by WIO countries as well as in the one-UN context. Further, it will also help make GEF support in WIO more visible and effective. The UNDP/GEF Regional Technical Advisor (RTA), the UNEP GEF IW Task Manager (TM) and the Nairobi Convention Coordinator have identified a number of opportunities for strengthened collaboration in the future amongst these projects. The following summarizes the agreements reached during these discussions and negotiations for closer collaboration and harmony of activities:

Objective for the improved coordination:

Ensure that UN Agencies can most effectively support the WIO countries in advancing towards their sustainable development goals and strengthening their capacity to better manage their coastal and marine ecosystems.

Key benefits from the improved coordination:

- Coordinated actions to advance on SAP implementation
- More effective monitoring of the SAP implementation progress
- More visible impacts from the GEF resources invested in WIO
- Effective support to the countries both at the national and regional level
- Better synergies and complementarities amongst GEF projects both at the national and regional level
- More effective review and reporting process at the results level in WIO
- Better communication with UNRC/UNCT in each WIO country.

Operationalising the Improved Coordination

A suite of platforms/mechanisms, described below, are proposed to realize the intended coordination:[5]

Regular agency coordination meetings:

A strong interagency coordination should set a foundation for good collaboration at the project level and provide strategic guidance as to how impacts from the two projects should be realized in medium to long term. It is proposed that the UNDP RTA and UNEP TM meet, together with their respective executing agencies[6], on an annual basis several months prior to the Project Steering Committee Meetings. The agenda would include preparing the PSC agenda, reviewing progress to date and identifying opportunities for synergy and coordination (as well as eliminating opportunities for redundancy and duplication) in the forward work plans. In particular, SAP revision process and SAP coordination process will be one of the key standing agenda items for the agency coordination meeting. Such coordination meetings could also involve other key partners (both agency and project representatives) active in the WIO region. The GEF Agencies will co-chair the meeting.

Regular PMU meetings:

Regular coordination amongst agencies will provide a vision for the Project Management Units (PMUs) of both the UNDP and UNEP projects to deliver. Both projects are expected to deliver about $2 million each in project activities per year. To do so in a way that maximizes synergies and eliminates duplication will require regular coordination. It is expected that the Project Management Units (PMU) of both the UNDP and UNEP projects would meet on a quarterly basis. The PMUs of other projects active in the region would also be encouraged to participate.

Joint PSC meetings:

Recognizing the complementary outputs and the overlapping constituencies, the UNDP and UNEP projects will be encouraged to co-convene meetings of their Project Steering

[5] This will be facilitated by the Nairobi Convention Secretariat, the GEF Executing Agency for both projects.

[6] The EA for both projects will be the Nairobi Convention Secretariat.

Committees, with joint information sharing and exchange sessions (e.g. SAP implementation progress) and parallel sessions to treat the regular business of each project (e.g. work plan, budget). This provides country representatives opportunities to steer and contribute to better coordination of the two projects in the most cost effective manner possible.

Joint Review meetings:

Recognizing the importance of disseminating project results at a level above the typical PSC representation, it is proposed that a WIO Joint Review Meeting be convened at Year 1, 3, and 5 of the project implementation (tentative, proposed to be every 2 years), associated with the Nairobi Convention Conference of Parties (countries are normally represented at the level of PS/DG – Minister at the COPs). Such meetings would take note of key project results, the SAP Implementation progress, and project implementation effectiveness (e.g. project review/evaluation results). In preparation for these meetings, projects would package their key results, challenges and recommendations for senior policy makers. WIO projects are held accountable by the Joint Review Committee to report their individual and collective contribution to the protection, management and development of the marine and coastal environment of the WIO region and to the sustainable socioeconomic development both at the national and the regional levels.

Budget:

Sufficient budget allocation will be made available from both projects to realize the suite of coordination meetings/platforms listed above. Every effort will be made to realize these coordination efforts in the most cost efficient and effective manner.

Proposed Cooperative Arrangements for Collaboration between the UNDP GEF SAPPHIRE Project, and the FAO/UNEP/World Bank GEF Initiative on Sustainable Fisheries Management and Biodiversity Conservation of Deep-Sea Living Marine Resources and Ecosystems in the Areas Beyond National Jurisdiction and THE UNEP-WCMC

The UNDP SAPPHIRE Project aims to implement a Strategic Action Programme for the Western Indian Ocean as formally adopted by the 9 countries of this region, in close coordination with the UNEP WIOSAP project (which also plans to implement a SAP focused on Land-based activities). AS LMEs do not fit purely within national EEZs but also include ABNJ, the WIO countries have agreed that the SAPPHIRE project needs to focus on a number of management issues related to ABNJ if it is to properly support SAP implementation in the LME. The signed SAP itself formally identifies the *'need to take into account activities, threats and impacts (actual and potential) within the high seas and areas beyond national jurisdiction'* and further recognises this need to *"explore and, where appropriate, develop management mechanisms for adjacent high seas that fall with the LMEs and which border the countries of the region.*"

The FAO/UNEP/World Bank Initiative aimed at ABNJs has a number of similar objectives but on a wider and more global scale, while using selected areas as pilots for exploring and promoting improved DSF management and biodiversity conservation processes, working directly with countries through their RFMO/As as well as with industry partners, Regional Seas Programmes (RSPs) and other relevant stakeholders.

The Project “Sustainable Fisheries Management and Biodiversity Conservation of Deep-sea Living Marine Resources and Ecosystems in the ABNJ” is one of four projects making up the GEF-financed Program “Global Sustainable Fisheries Management and Biodiversity Conservation in ABNJ”. It offers a unique opportunity for GEF, FAO, UNEP and its World Conservation Monitoring Centre, as well as the Project’s partners, to actively support the development, management and sustainability of Deep Sea Living Marine resources and associated biodiversity conservation in the ABNJ. The main objective of the Project is to achieve efficiency and sustainability in the use of deep-sea living resources and improving biodiversity conservation in the ABNJ, through the systematic application of an ecosystem approach for: (i) improving sustainable management practices for DSF, taking into account the impacts on related ecosystems, (ii) improving the protection of VMEs and enhanced conservation and management of components of EBSAs, and (iii) testing area-based planning tools for deep-sea ecosystems.

The Project’s main outcomes are listed as:

- Policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas.
- Reducing adverse impact on VMEs and enhanced conservation and management of components of EBSAs.
- Improved planning and adaptive management for DSF in the ABNJ.
- Development and testing of a methodology for area-based planning.

Clearly there is enormous opportunity here for partnership collaboration, sharing and cooperation to develop best practices on a number of scales. In this context, FAO will be invited to become a Member of the Project Steering Committee.

During project development, a number of discussions around such partnership have been held with UNEP, WCMC and with IUCN (also a major partner in this process) and ASCLME has worked very closely with IUCN on developing strategies for monitoring and managing seamounts within and along the LME boundaries, having been an active partner in the Joint IUCN-UNDP project on “Applying an ecosystem approach to fisheries management in the high seas: focus on seamounts of the southern Indian Ocean”.

While the “Global Sustainable Fisheries Management and Biodiversity Conservation in ABNJ” is, by definition, a global initiative, it has identified some pilot regions for developing more effective practices and strategies for management in ABNJ. These include the Southeast Atlantic, Western Indian Ocean and Southeast Pacific. The SAPPHIRE Project and the ABNJ project will therefore work closely together, with the SAPPHIRE Project providing focus and best lessons at the more precise and localised scale.

Specifically, on the part of SAPPHIRE, this will include:

Developing management strategies for ECS (which are not in themselves ABNJ but are national jurisdiction overlaid by high seas waters) as many of the processes and mechanisms in evolving regulatory and management in these areas may be equally applicable to ABNJ (e.g. voluntary agreements and alliances).

Developing similar voluntary agreements and alliances for High Seas and ABNJ immediately adjacent to national EEZs and within the LME boundaries.

The deep-sea ABNJ project will be able to provide the 'top-down' negotiation process with many of the formal sector representative groups operating in the ABNJ and High Seas (e.g. FAO, IMO, Fishing industry, etc.), which can then feed in at the more localised level through SAPPHIRE)

Although geographically the SAPPHIRE project will be more focused, the actual evolution and adoption of management strategies will be very complementary and will provide valuable input into this partnership of projects. Some examples of planned collaboration are given in Table 8 below.

Table 8: Planned Collaboration between SAPPHIRE, FAO and UNEP-WCMC on development of Management Approaches in ABNJ

SAPPHIRE Outcome and Deliverables	Proposed Relationship with FAO and WCMC
Outcome 4.1: Identifying innovative management options for High Seas areas within LMEs	
Deliverable 4.1.1: Negotiation of Alliances and Partnerships between bordering countries and user/stakeholders of ABNJ which fall within the LME system so as to develop management agreements.	Both FAO and WCMC (along with Nairobi Convention) will be invited to join a High Seas Policy Development (HSPD) Group set up by the PSC, and assist in defining issues, challenges and possible options for management strategies in Contiguous Adjacent High Seas Areas (CAHSA)
Deliverable 4.1.2: Specific activities undertaken through partnership agreements (such as the CAHSA Alliance, as above) to support SAP Implementation requirements.	All three Projects and associated partners will work closely together in developing and implementing a strategy for MSP in the CAHSA areas of the LMEs. This partnership will also identify the gaps analysis and baseline ecosystem surveys necessary to support MSP and to identify and adopt an appropriate ecosystem monitoring strategy (e.g. for deep-water habitats and seamounts, etc.) along with identified responsibilities within the Alliance.
Deliverable 4.1.3: Identifying innovative management options for High Seas areas within LMEs	The partnership of the projects will work closely with the countries and private sector Alliance partners (through a HSPD group) to negotiate voluntary management and regulatory strategies, as well as designations on MPAs, BPAs, VMEs, etc. within the appropriate WIO LMEs areas. They will also cooperate to establish High Seas 'Best Practices' for voluntary management agreements and voluntary regulation of activities that can help them to develop and adopt a united position within the international community
Outcome 4.2: Demonstrating innovative management options within specific marine space in the WIO LME	
Deliverable 4.2.1: Demonstrating Innovative Ocean Governance Mechanisms and Delivering Best Practices and Lessons for Extended Continental Shelf Management within the Western Indian Ocean Large Marine Ecosystems	Both Mauritius and Seychelles have requested UNDP GEF support for activities in the ECS alongside the Joint Management Authority. This is an innovative intervention from GEF to the development of a management strategy within a newly declared Extended Continental Shelf Area and will provide a baseline for further ECS agreements that may come online. The MS – JMA can provide a case study and pilot of this specific challenge for possible use and replication throughout the greater WIO and Global activities objectives of the FAO/UNEP components of the ABNJ project. It is hoped that the FAO/WCMC activities can look at another possible area that could benefit from bilateral management and could make a case study and demonstration for such an area.
Deliverable 4.2.2: implementation	The Republic of South Africa is well advanced in its Ocean

demonstrated within South Africa with a focus on intersectoral collaboration and management mechanisms	Policy and has adopted 'Operation Phakisa' to demonstrate how a "blue Economic' approach can work alongside and complement EBM at a national level. South Africa has submitted its ECS request and awaits a final decision. Once approved this will dramatically increase the area requiring management and ocean governance (by approximately an additional 200% of territory) and will abut on to some significant ABNJ including highly-exploited seamounts and hydrothermal vent fields currently under exploration for future extractive mining practices. The partnership of the projects can jointly assist RSA in negotiating and adopting regulatory and management practices within these ABNJ that can mitigate and hopefully avoid transboundary impacts into the LME.
Deliverable 4.2.3: Demonstrating Marine Spatial Planning within a Blue Economy framework in selected areas within participating countries for further replication and transfer of lessons. If and where appropriate, these MSP demonstration sites can be linked to the LED/EBM demonstrations under Component 2 above.	This deliverable will be focusing on how the Blue Economy approach can be integrated into MSP and will be well positioned to learn from the MSP and Blue Economy experiences. Once again, the overall experiences from the partnership of projects can be polled and shared to assist in developing such MSP approaches.

Proposed Cooperative Arrangements for Collaboration between the UNDP GEF SAPPHIRE Project, and the World Bank GEF South West Indian Ocean Fisheries Project (SWIOFish)

SWIOFish has grown out of the previous GEF-funded South West Indian Ocean Fisheries project which was a 'sister' project to the UNDP GEF ASCLME project. The ASCLME Project and the SWIOFP project collaborated closely in developing a single TDA and a single SAP. It is therefore both essential and inevitable that SAPPHIRE would wish to cooperate and collaborate closely with the SWIOFish activities and deliverables as deemed appropriate by the countries. Much of this requirement and intended approach has been discussed above in the section on Project Strategy and under each Component.

As with the UNEP GEF WIOSAP Project, SWIOFish and SWIOFC would be invited to sit on the SAPPHIRE Steering Committee as would IOTC. SWIOFish would also be invited to join with WIOSAP and SAPPHIRE in the regular agency coordination meetings and PMU coordination meetings. SWIOFish has stated in its Tracking tool that it does not intend to work further on the SAP, but will contribute to its implementation through support the EAF management plans developed under SWIOFP.

The following are the more obvious areas of potential collaboration. That will be discussed and negotiated with the fisheries agencies and bodies to ensure appropriate engagement in SAP implementation.

SAPPHIRE Outcome and Deliverables	Proposed Collaborative Relationship with SWIOFish, IOTC and SWIOFC
SAPPHIRE will be working closely with UNEP-WCMC and Nairobi Convention on Marine Spatial planning across the entire LMEs area. This will need to included fisheries management planning and	SWIOFish1 intends to prepare fisheries co-management plans that will support adjustment of the fishing capacity to the fish stock productive capacity. These plans can be incorporated into or linked with the overall MSP and SAP process as appropriate

implementation which is within the Purview of SWIOFish, IOTC and SWIOFC	
The Economic Valuation and Cost Benefit Analysis that will be undertaken for the LMEs and supported by SAPPHIRE will also need to include fisheries considerations and data.	SWIOFish1 will include upstream value-chain improvement that could reduce post-harvest loss, therefore with a potential for reducing pressure on the stocks. Data collection will be improved and can more accurately advise EV and CBA
SAPPHIRE will be supporting Local Economic Development Planning and Implementation at selected community sites. These LEDs will include alternative livelihoods as appropriate as well as promoting new approaches such as small-scale community aquaculture	SWIOFish 1 would be considered alternative livelihoods within and outside the fisheries value-chains. SAPPHIRE and SWIOFish can collaborate at an on-the-ground level at selected communities
SAPPHIRE has an entire component addressing Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices	One of the SWIOFish1 objectives is enabling private sector productivity and investment, and supporting public investments critical to a viable private sector. The two projects can further collaborate on this objective, sharing activities and funding where appropriate

The role of regional institutions:

Existing regional institutions, such as Nairobi Convention, South West Indian Ocean Fisheries Commission, Indian Ocean Commission, Indian Ocean Tuna Commission, Western Indian Ocean Marine Science Association, can play a catalytic, leading, and/or supportive role for the WIO countries to better coordinate project activities as the project implementation progress. Their respective mandates, convening power, established communication as well as coordination channels with the WIO countries, technical expertise and political weight should be fully respected and utilized by the projects and the UN Agencies throughout the project implementation.

3. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:
Country Programme Outcome Indicators: Not Applicable
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): **2.5. Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation** **1.3. Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste**
Applicable GEF Strategic Objective and Program: **IW Objective 2: Catalyse multistate cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems (LMEs) while considering climatic variability and change**
Applicable GEF Expected Outcomes: **Outcome 2.1. Implementation of agreed Strategic Action Programmes (SAPs) incorporates ecosystem-based approaches to management of LMEs, ICM principles and policy/legal/ institutional reforms into national/local plans** **Outcome 2.2. Institutions for joint ecosystem-based and adaptive management for LMEs and local ICM frameworks demonstrate sustainability**
Applicable GEF Outcome Indicators: **Indicator 2.1: Implementation of national/local reforms; functioning of national inter-ministry committees.** **Indicator 2.2: Cooperation frameworks adopted & include sustainable financing**

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
Project Objective: To achieve effective long-term ecosystem management in the western Indian Ocean LMEs in line with the Strategic Action programme as endorsed by the participating countries						
Component 1: Supporting Policy Harmonization and	**Outcome 1.1** Policy, legislative and institutional reforms and realignment in	Ecosystem-Based Management not effectively captured within current policy, legislation or	Adoption of revised legislation and policy reforms and realignments at national (and, where appropriate, regional levels) to capture the overall ecosystem based	Legislative and Policy Reforms in line with SAP and its implementation are taken through due national process for inclusion in national	Revisions and improvements to legislation and policy relevant to ocean governance clearly	All countries have the capacity to form national intersectoral policy and technical

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
Management Reforms towards improved Ocean Governance	support of the SAP are implemented at national and regional level as appropriate, with emphasis given to strengthening and supporting existing processes and mechanisms including regional bodies (such as Conventions, Commissions, and Regional Scientific Bodies). Coordination and management mechanism are strengthened at both national and regional levels	institutional management mechanisms. (Lack of capacity). Where appropriate structures exist, they are often poorly implemented. Regional Bodies accept need for closer collaboration within a Strategic Action Programme to deliver an effective EBM approach for the WIO LMEs Countries need capacity building and assistance at regional and national level to deliver SAP Implementation, especially in areas related to monitoring and scientific studies. The WIO LMES area is a vast area of coastline and ocean that has not been studied at all in any detail or depth (until WIOLAB, SWIOFP and ASCLME Projects came along) Cost benefits and values of ecosystem goods and services have not been included effectively with the region in multi-sectoral or economic and	management approach Assistance to countries to meet national commitments to regional and global Agreements, Conventions and Protocols, as well as the need for more vigorous monitoring and compliance/enforcement. Ensure effective implementation thereof. Support to the development/adoption of appropriate regional and national intersectoral institutional management mechanisms to ensure ongoing SAP Implementation Mechanisms developed to capture the various information products (such as adaptive management/policy reform guidelines and Annual Ecosystem Monitoring Reports) arising from the science-based management and governance mechanisms and anchored institutionally at both the national and regional level, Outputs from Ecosystem Valuations adopted into national economic development and to advise policy reforms Outputs from Marine Spatial planning processes (including lessons from UNEP GEF WIOLaB SAP Implementation Project and reporting from Nairobi Convention) adopted as part of effective broad-scale LME management and governance mechanisms, and implemented where feasible National Action Programmes derived and elaborated from MEDAs (with clear policy reforms identified and initiated at the national level in support of regional SAPs)	legislation and policy, with appropriate institutional and / or administrative capacity development and realignment as required and including appropriate SAP-relevant implementation of international / regional / RFMO / IGO / Convention / Protocol regulations. Regional SAP Implementation Policy (PSC) and Technical (STAP) Committees established (with membership from all participating countries) and driving SAP Implementation through frequent meetings, dialogue and agreements on action and monitoring changes and variability in the LMEs and implications for communities Regional SAP Implementation Technical Committee advising Policy Committee on results of monitoring processes and consequent adaptive management requirements and policy options National Level LME SAP Intersectoral Committees established (or evolved from existing bodies) in each country and A) ensuring the LME SAP management concept is followed at national level while B) providing input to regional SAP Implementation Policy Committee National Level Technical Committees established (or evolved from existing bodies) and overseeing national monitoring programmes A)	captured and gazetted through government channels Revisions and improvements at regional level clearly documented within meetings and CoPs of Conventions / Protocols / IGOs / RFMOs Minutes from appropriate established intersectoral (steering/ technical / policy) bodies at national and regional levels reflect frequency of meetings and monitor effectiveness of guidelines and actions taken to implement the SAP and to deliver an ecosystem-based approach for WIO LMEs; appropriate intercessional communication / activities are documented Advisory documents sent from National and Regional Technical Committees to National and Regional Policy Committees National and Regional Committees have an active M&E process to 'track' adaptive management measures and policy responses and to feedback into the Science-Based Governance data capture and review process New national and regional institutional or administrative	level committees An appropriate regional Scientific Body needs to be in existence and identified as well as to have the capacity to carry out such a tracking and evaluation process Policy, management and legislative reforms can be effectively realised in all countries during the lifespan of the project National and regional institutions will participate to the extent required Adequate capacity for MCS exists or can be developed within the available budget MEDA information needs to be up-to-date and complemented by recent valuations of ecosystem goods and services Countries are willing to develop and adopt appropriate NAPs based on MEDA information Measurable changes in EQOs can be realised / detected in

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
		development management and policy decisions		guide adaptive management decisions and policy options at country level and B) that feed into the overall regional WIO LME monitoring programme through the regional Technical Committee. Ecosystem valuation and cost-benefit updates influencing national economic development plans as well as policies in various related sectors MEDA outputs and conclusions captured within appropriate National Action Plans (Economic, (I)CZM, ocean policy, local community development plans) and influencing policy decisions that support overall adaptive management decisions and regional SAP Implementation and vision; regular revisions of regional TDA Interactive Feedback process established between policy, management and science/technical level to ensure priority SAP implementation activities are fast-tracked Compliance with the articles of the BC Convention adopted into national legislation as well as management processes Formal agreements for collaboration and cooperation with regional bodies (e.g. SWIOFC, IOTC, Nairobi Convention), other funded initiatives (WIOSAP, SWIOFish, Deep-sea ABNJ,	arrangements adopted (where appropriate and deemed necessary by mandated regional bodies and countries) Strengthened MCS activities supporting successful implementation of Protocols/ Conventions/ Legislation show positive impacts on EQOs Appropriate Ecosystem-Based National Action Plans negotiated and adopted based on MEDA recommendations, ecosystem valuation and cost-benefit results and linked into national economic development policies Formal linkages and lines of communication established between appropriate academic & scientific institutes/bodies and management organisations at both national and regional levels to ensure reliable communication of adaptive management guidelines and policy options Comparison of national legislative documentation with Convention. Confirmation from management bodies in each country Formal Agreements lodged with Project and with UNDP Reduction in waste	the timeframe of the project

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				various MAP projects) as well as commercial operators (through WOC and with such bodies as SIODFA). Ship and platform-based waste discharges reduced by 20%. Uncontrolled ballast water discharges reduced by 15%.	discharges and ballast water discharges from ships monitored through port state controls and on-board logs with close compliance and voluntary agreement by industry	
	Outcome 1.2 Technical and institutional capacity developed to deliver Knowledge-Based Governance approaches by delivering scientific results to management and policy makers for adaptive management decision-making	Insufficient regional capacity for sustainable SAP implementation in a number of skill areas Capacity development needs to focus on institutions rather than just individuals in order to ensure ongoing sustainability Data and Information management / handling / dissemination insufficiently rigorous and not harmonised throughout the region	Regional, National and Local Ecosystem Indicator Monitoring Programme (Using WIOSEA partnerships) to support adaptive, dynamic management and decision-making process (to include indicators of ecosystem variability, climate change, socioeconomic status, community livelihoods and welfare, etc.) Regional standards negotiated for marine water quality and associated EQOs in partnership with the appropriate mandated bodies (e.g. IGOs, Conventions, national counterparts) Marine Spatial Planning capacity developed and techniques enhanced (working closely with UNEP GEF WIOLaB SAP Implementation Project and other partners) to support and guide the designation of management areas as part of a dynamic management process (with a focus on zoning of marine coastal areas and development of community management frameworks for those zones – to link in with development of LED plans where possible and appropriate) Harmonised regional data and information management, handling and distribution Development and adoption of an active Peer review process for Trend identification for dynamic management decisions and to guide policy realignment/reform Adaptive management & policy reform	Effective Science-Based Governance mechanisms adopted at both national and regional level and anchored through appropriate institutions Adaptive management recommendations acted on by governments and by regional intergovernmental bodies as appropriate Policy guideline options adopted by national governments and regional bodies /conventions /commissions as appropriate Regional Ecosystem Indicator Monitoring Programme negotiated at regional level, adopted by countries and implemented at both national and regional levels, reflecting cooperation with TWAP, AoA and other partners for indicator development. In close collaboration with the Nairobi Convention Secretariat, develop a formal water quality monitoring programme adopted at regional and national levels with regionally agreed compatible indicators reflecting TWAP and AoA, in	Annual review of Science-Based Governance mechanisms and approaches by an appropriate regional scientific body and recommendations sent to Regional and National Level Policy and Scientific Committees Annual monitoring reports from each country and annual regional consolidated report (with extrapolation and guidance for national and regional adaptive management) National monitoring measures and capacity in place at pilot sites to demonstrate compliance with standards for contaminants, alien and exotic species, oil and hazardous chemicals and waste discharges National adoption of regional standards for marine spatial planning as a nationally legislated requirement under ocean policy and IC(Z)M legislation	Assumes that In-country capacity available and sufficient for undertaking standard ecosystem indicator and other monitoring programmes Similarly, assumes that countries have capacity to undertake Marine Spatial Planning and other Science-to-Governance processes Countries may not be willing to share data or allow access to national data Assumes that managers and particularly decision-makers will acknowledge management guidelines and policy briefs and act on them All countries can accept and implement a standardised Marine Spatial Planning

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
			guidelines disseminated (with a 'feedback' process adopted to guide monitoring and data analysis priorities) Use of Cost Benefit Analyses and Ecosystem Valuations in national economic development plans (and as part of NAPs) and to advise management processes and justify policy/legal reforms Collaborate closely with UNEP GEF WIOLaB SAP Implementation Project to strengthen capacity for communities to engage in participatory Marine Spatial Planning and associated management	close collaboration with UNEP Regional standards and limits/indicators or guidelines adopted for microbial contaminants, alien and exotic species, ship and platform based solid and liquid waste discharges and oil and other hazardous chemicals (taking into account existing conventions such as LDC, GloBallast Convention, other MARPOL conventions and protocols) Marine spatial planning adopted by all countries as a tool for Science-to-Governance mechanisms and translating data and knowledge into management and policy responses Marine spatial planning adopted as a zoning, regulatory and management practice for coastal and marine resources and activities by countries as and where feasible and through regional standards Stress reduction to LME through pilots in each country. At least 7 'best practices' in use of MSP demonstrating localised reductions in habitat degradation (25% increase in 'protected' habitats being managed at local level by MSP adoption), improved public-private sector management agreements leading to measurable reductions in coastal and offshore discharges across 20% of LME, work closely with UNEP WIOSAP project to	Regional data and information management, handling, access and distribution agreement relating to SAP information and SAP implementation negotiated and adopted by the countries Peer Review body / mechanism agreed and adopted through formal document of Agreement with other SAP bodies Marine Spatial Planning framework adopted by all countries as reflected in meeting reports, and demonstrated in pilot sites. On-site independent evaluations of pilot areas and demos. Overall evaluation (MTR and TE) of SAPPHIRE and WIOSAP projects Management guidelines and policy briefs minuted in records of national and regional level SAP administration / implementation bodies Feedback processes from options selected for adaptive management and policy realignment minuted and feedback given to Peer Review body and technical bodies to fine-tune research requirements	approach as part of their economic development strategy

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				achieve 10-20% reduction in measurable land-based waste discharges into coastal areas Integrated regional mechanism for data handling (as a formal agreement) with national nodes identified Effective Peer Review process developed (and agreed / adopted by countries at SAP technical and policy level) which can identify trends in changes in the LMEs that affect the SAP implementation and which need acting on Regular process of management guidelines and policy briefs/updates from peer review body / process going to SAP Technical and Policy level bodies at both national and regional level updates of MEDAs Adoption of a standardised regional approach and implementation at the national level of assessment techniques for evaluation ecosystem goods and services and cost-benefits of the ecosystem-based management approach in parallel with local and national economic development planning National adoption and delivery of regional standards for reporting of altering trends in ecosystem goods and services along with cost benefit analysis, and integration of results/conclusions into NAPs	Regular Policy briefings provided by countries and to countries on ecosystem value of goods and services and cost-benefits of EBM (using data from MEDAs and TDA updates)	

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
	Outcome 1.3 Collaborative and cooperative mechanisms agreed and strengthened between national, regional and global partners and stakeholders	A multitude of regional organisations, bodies and associations exist. Some of these have bilateral arrangements for coordination and activities but many do not. SAP Implementation will require activities to be undertaken by the appropriate responsible and mandated bodies but will also require effective cooperation and collaboration at the regional level through appropriate formal bodies that currently do not exist but which the SAP document proposes to create (i.e. a Regional Policy Body and Technical Body) There are limited resources currently available to many of the responsible bodies and organisations to carry activities and functions related to SAP implementation	Assist strengthening of mechanisms for coordination of SAP implementation at regional level through support to the existing responsible IGOs and other mandated regional bodies (i.e. Nairobi Convention, SWIOFC, IOC-UNESCO, WIOMSA, COI-IOC) Coordination and facilitation of partnerships developed under WIOSEA to deliver priority activities as defined in the SAP document; delivery of a strengthened and expanded WIOSEA partnership in support of ongoing SAP Implementation Re-establish and formalise the Regional Project Coordination Forum; facilitate and support biennial LME Science Symposium; Facilitate and support WIO LME Donor and Partner conferences with appropriate stakeholder involvement Provide feedback from various scientific and technical meetings into the Scientific and Technical Advisory Panel (STAP) of the SAP (under 1.1.3 above)	Mutual collaborative and cooperative activities defined through MoUs and work-plans / road-maps Reciprocal membership and attendance of SAPPHIRE in various Steering Committees and Technical Committees / IGO / RFMO / scientific working groups WIOSEA partnerships consolidated under a single working arrangement that extends also to supporting the WIO LME SAP implementation needs of various national and regional institutions and bodies Revival of the Regional Project Coordination Forum (Mauritius 2008) through agreement with the various regional institutes and projects (possibly anchored through WIOMSA) and with clear objectives Regular reporting to STAP on outputs from various scientific and technical meetings for STAP consideration and further guidance to Regional SAP Steering Committee	Records of meetings held/attended MoUs signed between SAPPHIRE Project and appropriate IGOs / regional organisations identifying areas where support from SAPPHIRE project can assist regional bodies in implementing SAP Adoption of a single Alliance arrangement for collaboration and for cooperation and support of ongoing SAP Implementation Minutes and Actions from regular (Biennial) meetings of the Regional Project Coordination Forum with evaluation of delivery of actions and any decisions by an anchoring institution Formal reports to STAP and STAP minutes record discussions and input to SAP Steering Committee	Requires close collaboration and cooperation between SAPPHIRE, as a funding activity, and the appropriate responsible regional bodies mandated to oversee coastal and marine resource and ecosystem management WIOSEA partners need to be agreeable to a single agreement that can facilitate assistance and support to the national and regional bodies responsible for SAP implementation
Component 2 Reduction through Community Engagement and Empowerment in Sustainable Resources Management	**Outcome 2.1** Integrating the Ecosystem-based Management approach into Local Economic Development Plans at selected communities Pilot level and stress reduction demonstrated and captured for	Countries need capacity development at a national, regional and local level to complete the LED plans Local Economic Development (LED) plans do not	Support to the countries to revise and implement selected LED plans into LED-EBM plans and activities Mechanisms developed to fully capture the ecosystem approach into the LED plans incorporating stress reduction mechanisms – creation of LED-EBM "toolkit"	Selection criteria developed and used to identify pilot/demonstration communities for LED-EBM. Selection criteria must specify stress reduction intentions and objectives with measurable indicators Experts identified and LED-	Minutes from meetings, clear action plans with appropriate indicators, experts appointed, selected LED-EBM plans completed Local participants are identified for capacity development. Regional	All countries have the capacity to participate. Local experts are present and available to participate. WIOMSA will be able to assist with the process Communities accept

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
	replication (including community stakeholder engagement and awareness of LME Goods and Services	adequately capture the ecosystem approach, including stress reduction Ecosystem cost benefits of goods and services not clear in current LED framework LED plans require a clear link between artisanal fisheries development and broader goals including alternative livelihoods Community stakeholder awareness of LME goods and services not widespread Countries are not able to effectively implement the LED plans or undertake informed participatory ecosystem based management approaches	Cost benefit analysis undertaken and outcomes incorporated into LED-EBM plans Broader goals at a community level fully incorporated into the LED-EBM plans Communities sensitised to values of LME Goods and Services Community-level input into management and policy dialogue through appropriate involvement of community leaders or other effective mechanisms Selected LED-EBM plans are effectively implemented by the end of the project Capture of best lessons and practices for use by countries in further development and implementation of ecosystem-based LEDs	EBM committee minutes reflect clear action points. Clear, viable mechanisms developed to incorporate the ecosystem approach. LED-EBM plans reflect the ecosystem approach LED Committee established (with membership from all participating countries) and driving selected pilot LED-EBM development through frequent meetings, dialogue and agreements on action. Regional and Country experts identified and appointed to drive the pilot projects Local and regional capacity is developed as appropriate and gender issues are fully incorporated into plans Experts identified and appointed to work with the communities in undertaking cost benefit analysis. Cost benefit analysis process and mechanism understood by communities and clear participation in the process through workshops. Cost benefit analysis completed for all selected communities LED-EBM committee to appoint a focus group to identify and develop the linkages between artisanal fisheries and broader community goals. Local experts well versed in broad community based development work appointed to the pilot projects. Framework for the process agreed. Broader goals incorporated into the LED	capacity building Committee (as identified in the SAP) identifies and coordinates activities. Local participants trained Experts appointed, mechanism adopted by communities, workshops undertaken, cost benefit analysis results incorporated into the LED plans Ratio of women in decision-making positions in the common interest groups Communication strategy developed (and implemented, where feasible). The number of communities to be approached clearly demarcated. Interventions like radio, workshops and television to have estimates of audience numbers clearly denoted in reports Selected LED-EBM plans complete. Implementation of selected aspects underway by year 2 Reports provided to countries (via STAP and Regional SAP SteerCom) on best lessons and practices for ecosystem-based LED development and implementation Reports provided to IW:LEARN on best	the requirement to revisit the current LED plans and spend the time incorporating the ecosystem approach Communities are able to understand and participate in the cost benefit analysis. Experts are available to be able to undertake the study. Local expertise will be important Community experts with a broad knowledge base can be identified and appointed. The communities are widespread and not easy to get to. Any communications strategy must be able to access the greatest possible number. It is assumed that there will be a multi-focused approach to achieve the objectives Countries have the capacity to begin implementing selected aspects of the plans. It is anticipated to work with other regional bodies/projects in the implementation process such as SMARTFISH, SWIOFISH , FAO,

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				plans LED-EBM "deployment toolkit" created and available for dissemination / replication A communication strategy developed and undertaken broadly across the region Regional LED-EBM committee has chosen the plans that have the best chance of immediate implementation. Plans are being implemented by year 3 Better coastal management strategies leading to reduced stress on coastal habitats and species from pollution and habitat changes. 25% reduction in land degradation over 4 years; 5-10% habitat restoration at selected community pilot sites. Specific stress reduction at demo sites includes close collaboration with WIOSAP on improving sewage treatment practices and technology improvements leading to at least 25% reduction in untreated or secondary treated wastes at pilots;; waste water recycling improved at pilots by 50%; ; coastal set-back regulations adopted within 2-3 years at all sites; ecosystem-based tourism increased by 15-20%); improvements in water quality at coastal/estuarine level measurable by reduction in harmful pesticides, nitrates and phosphates from up-river sources by 10-15%	lessons and practices for ecosystem-based LED development and implementation	WWF and WIOMSA

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				Lessons and practices captured from implementation of plans and A. reported to IW:LEARN and B. circulated to countries for use in further development and implementation of ecosystem-based LEDs		
	Outcome 2.2 Stress reduction through ecosystem-based practices among artisanal and subsistence fisheries	Broad information on different categories of small scale fishing communities in the region not available and no current overview of past, present and planned interventions. Without a sound knowledge of the social structure and local governance mechanisms within communities rational decisions on intervention are not possible The contribution of artisanal fisheries to food security is threatened by reducing catches, stock depletion, user conflicts (e.g. tourism), a localised high level of exploitation and habitat destruction, resulting from inappropriate gear/methods and climate change (e.g. Dynamite fishing, coral bleaching, industrial pollution, coastal discharges)	A suite of social and ecological context criteria for distinguishing between different types of fishing communities in the region developed and an overview of activities in the region compiled The spatial structure of different types of fishing communities in the regions, providing GIS referenced information. Criteria are developed to provide a mechanism to choose appropriate communities Local regional selection panel established and four communities chosen. Local knowledge systems of each community are fully understood in the context of possible interventions. Concrete steps taken to address key issues at selected demonstration sites Selected interventions undertaken to demonstrate more effective access to information and more effective use of information for management and sustainability Delivery and adoption of Artisanal Fisheries Management Plans (AFMPs) for selected demo sites Community-level AFMPs incorporated into overall national fisheries management	Clear social and ecological criteria are established. A comprehensive overview of all pertinent activities is compiled GIS referenced fishing community types is compiled and useful for selecting communities for interventions Communities chosen are suitable and representative of the criteria developed Regional selection panel established Local communities are fully involved in the process of selecting and implementing interventions (including active and equitable involvement of women and youth) Regular data collection from local fisheries management areas and communities feeding into fisheries reviews and management processes Aquaculture considered as an alternative livelihood through LEDs Overall National fisheries management plans in Demos site countries include community-level Artisanal Fisheries Management plans	Criteria are used to clearly differentiate between types of fishing communities in the region Interventions do not overlap with existing and planned interventions in the region Spatial structure of communities is used to select suitable communities for interventions. Initial discussions with government agencies are initiated. Selection panel is successful, and interventions are proposed Interventions are accepted at the local community level Policy briefs on importance of coastal fisheries (artisanal, small scale, recreational) prepared and disseminated Artisanal fisheries data incorporated into annual catch statistics and into annual planning meetings and processes LEDs revised and reflecting EBM	Communities are willing to cooperate in the local area management of artisanal fisheries National Governments are willing to engage communities and artisanal fishing groups into the national fisheries management process Local Economic Development Plans are available or under development which can be fine-tuned and revised.

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
			strategies/plans Demonstrate the integration of local fisheries management improvements and strategies into Local Economic Development Plans MCS strategies refined through testing and implementation in selected demonstration sites concentrating on Local Fisheries Management (in conjunction with SMARTFISH and other regional partners) Agreed policy and selected training undertaken in conjunction with regional partners Improved BMU governance and efficiency	Regular socioeconomic reports on the contribution of artisanal and recreational fisheries to the economies and region completed Local Economic Development Plans refined toward a more ecosystem-based management approach including artisanal fisheries components and recognising socioeconomic value of small-scale fisheries sector. Reduction in harmful fishing methods demonstrated at 4 pilot communities though changes in gear use and fishing practice (across 35% of local fishing fleet). 30% reduction at pilot sites in overall non-usage bycatch; 30% reduction from artisanal fisheries in catch retention of sensitive/endangered species (sea turtles, dugong, seabirds, small cetaceans, coelacanth, etc.) Reduced gear-use conflicts between artisanal and commercial fishers noted for at least 25% of EEZ within LMEs; better management of fish handling and transportation (leading to fewer losses and more availability so reduced pressure on stocks) recorded within at least 4 national fisheries. Controlled catches of species and sizes in at least two communities per country; improved gear usage demonstrates less destructive fishing practices as recorded in at last 4 countries;	approaches to locally managed fisheries as well as socioeconomic issues related to community-level fisheries and potential for credits and micro-financing identified Specific report (possibly a section in LEDs) advising on gear improvements, catch handling, storage etc. to improve value Government paper (where appropriate) on use of rights-based fisheries to improve livelihoods of communities while evolving better management of local area artisanal fishing National and regional training programmes agreed and delivered with feedback to Governments and regional IGOs Nation MSP management strategies and general coastal management strategies adopted (available from countries) and include clear focus on local community concerns and management needs Community LEDs formally lodged and active with clear stress reduction aims and objectives (measurable indicators) Community catch data regularly collected showing fall in bycatch (and/or more efficient use of bycatch) Documented negotiations	

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				Pressure on local fisheries reduced through small-scale aquacultural development in at least 4 pilot areas Improved capacities for MCS at selected demonstration sites acting as 'best lessons' for replication Training programmes on 'priority' issues (as agreed with communities) undertaken National marine spatial planning approaches are focused at community management leading to stress reduction across the board at coastal and estuarine level and up-river	/discussions between artisanal and commercial fishing groups Physically improved facilities for fish handling and transportation (confirm by Evaluators) Changes in gear use documented through reports and MTR/TE Physical evidence of aquaculture projects with clear indication of successful marketing and controlled impacts on environment (noted also at MTR and TE stage)	
Component 3 Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices	**Outcome 3.1** Private Sector participation in SAP implementation (particularly through and with the WOC) and through risk reduction and contingency response mechanisms using public-private sector partnership agreements along with regional partners (Nairobi Convention, WWF, IUCN, etc.). Furthermore, facilitate the adoption and implementation of mechanisms which would aim to facilitate Private Sector engagement in SAP Implementation, ecosystem monitoring and associated stress reduction activities. The Private Sector will work with SAPPHIRE and its	No existing Private Sector participation in SAP Implementation; no systematic involvement of Private Sector in data capture, analysis and dissemination (although some ad hoc "vessel of opportunity" occurs); no formal programme of self-regulation by industry; private sector not generally directly involved with implementing various international Conventions; no existing, functional regional emergency control/coordination centre. Private Sector companies generally unaware of LME	PPP Scientific and Management Body established and accepted within overall SAP management process Private Sector fully engaged in data collection, analysis, co-management and impact monitoring across relevant sectors. Private Sector self-regulates activities to achieve stress reduction within LME Private Sector demonstrates innovative involvement in meeting / exceeding commitments to regional / global Conventions and their associated Protocols, Guidelines and Activities. Private Sector companies recognise the LME Approach and "mainstream" it (and support of the SAP implementation process) into their everyday activities with recognition of the need to reduce and maintain accepted limits of impacts on EQOs. Full Strategic Environmental Assessment of the oil and gas development and	PPP Scientific and Management body functional and operating within in SAP management structures Appropriate Agreements created and mechanisms implemented to ensure private sector participation in impact monitoring and mitigation activities (building on original Alliance agreements) Ocean-industry partnership for data capture and monitoring established Agreement on priority stress reduction activities related to SAP implementation including actions to reduce pollution at sea, pollution from land-based point sources, adoption of sensitive areas for avoidance; monitoring of exotic, non-native and nuisance species and actions taken to prevent/mitigate introductions	Meeting Minutes Terms of Reference Reports of activities Existence of appropriate Policies and legal instruments. Deployed instrumentation contributes to databases & regional monitoring & decision-making (input into Science-to-Governance processes) EIA processes are entrenched within countries Existence of regional centre, as shown by regional Agreements, physical existence and ongoing maintenance and demonstrated ability to respond, along with demonstration of supportive policy instruments and other	Private Sector organisations will be willing to participate. Country stakeholders will be willing to participate (e.g. by allowing Private Sector input into the relevant regional fora). Adequate financial (cash) and in-kind contributions commensurate to the scale of required interventions can be realised. Smaller companies can be effectively identified and reached. Other stakeholders (e.g. scientific/technical organisations) will welcome participation

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
	partners to 'mainstream' the ecosystem approach into their daily activities so as to reduce and mitigate (negative) impacts on EQOs	concept; do not "mainstream" it within their activities.	concession areas initiated through a broad stakeholder discussion (and appropriate funding and monitoring processes adopted) Identification of a mechanism or forum (in collaboration with the WOC) that can facilitate inter-country dialogue and decision-making with respect to impacts from the oil and gas industry in the region. This could be a function of specialised working groups under the STAP and/or Regional Policy Steering Committee. A Regional Response Centre exists which can effectively and swiftly coordinate regional responses to emergencies, with a focus on shipping (SOLAS/Search and Rescue; Maritime Domain Awareness) and response to oil and gas and other marine pollution incidents likely to show effects at transboundary scale, with access to requisite training, materials and expertise and able to facilitate/support responses to national/local events. Bilateral and regional agreements are negotiated to facilitate rapid movement of personnel and equipment without delay through customs and immigration in responding to regional emergencies, supporting the activities of the regional response centre. Coordination with other regional projects and organisations in realising public / private sector partnerships in ocean governance (notably UNEP/WIOSAP).	and spreading; reductions in sediment and nutrient loads; reduction in bacterial contamination; reduced numbers of seabirds and other not-target species taken in fishery; etc. Agreed actions to reduce pollution at sea lead to a 10-20% decrease in discharges from shipping pollution as monitored and audited by industry under voluntary agreement. Close collaboration with WIOSAP to ensure that a similar reduction of pollutant inputs from land-based point sources shows a 10-15% decrease in nitrate, phosphate and other nutrients, harmful chemicals and waste products at selected 'hotspot' monitoring sites around the LME. Similar 10-15% reduction in bacterial contamination at selected monitoring sites. Adoption through agreement with industry of sensitive areas for avoidance or for specific control of activities including discharges) amounting to 25% of LME area. Monitoring of exotic, non-native and nuisance species and actions taken to prevent/mitigate introductions and spreading; Reductions in sediment loads from coastal mining, dredging and development by 10-15% at selected key 'hotspot' areas; reduction by 25% in the numbers of seabirds and other not-target species taken in fishery as reported independently.	activities. Working group or similar forum established for regional dialogue on oil and gas industry impacts and issues Stress reduction activities measured and confirmed as improving the status quo through A. fall in pollution levels associated with point-sources as well as generally along e.g. shipping lanes; B. mutual agreement and adoption of sensitive areas documented by formal agreements; C. management strategies discussed and adopted in relation to exotic and invasive species. D. measured and reported reductions in sediment and nutrient loads in water column and at seabed adjacent to or over sensitive habitats: E. measured and reported reduction in harmful bacteria (e.coli, etc.) and HABS; Fisheries catch and landing data show a reduction in seabird bycatch; measured and reported general reduction of levels of hydrocarbons in water column, sediments and LMR tissues samples. PPP Scientific and Management Body meetings reports and minutes confirm SR targets being reached/met.	by private sector. Multilateral agreements can be brokered. Countries will have capacity to handle potential volume of EIA requests. Ecosystem impacts / stress reduction can be monitored and detected within the timeframe of the project.

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				Data from SO-SI actively included in data assessments and reviews of impacts (i.e. through MEDA-TDA updates as well as through regular Ecosystem indicator Monitoring programme and Science-to-Governance processes) Ongoing deployment of instrumentation by / on board private sector vessels and other platforms Self-regulation process adopted with a focus on achieving improvements in ecosystem health through measurable stress reduction / EQO impacts . Private Sector adopts and takes action to meet (as appropriate) the sectorally relevant global and regional Conventions & Protocols (e.g. IMO / GloBallast / MARPOL / CLC / OPRC / UNCLOS etc.). Collaboration with other regional partners (e.g. WWF, Nairobi Convention, etc.) on undertaking a regional SEA to be conducted for the entire oil and gas development region (strong focus on the northern Mozambique Channel) Close inter-country dialogue developed through a formal working mechanism Regional Response Centre created and staffed, with access to sufficient equipment and chemical stores to respond to threats in time with supportive communications equipment, real-time	Stress reduction targets confirmed at MTR and TE stages	

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				information resources, databases, equipment, training and regular test exercises conducted with appropriate regional legal/ institutional /policy frameworks in place. Partnership agreed with appropriate hazardous spill contingency planning and response organisations and specialists (such as ITOPF, IPIECA and IMO) Levels of hydrocarbons and chronic pollution from oil and other hazardous chemicals in water column and biological tissue reduced by 15% and 25% respectively at key monitoring sites and areas (i.e. those with previously high levels such as shipping lanes and adjacent fisheries). This to link in to requirements and objectives of the respective protocol in the Nairobi Convention. Industrial Fisheries Sector contributes to overall Private Sector involvement in SAP implementation, with Industrial fisheries representation on appropriate bodies; other relevant maritime companies not well represented in WOC encouraged to consider joining it Private Sector involvement demonstrated in SAP implementation and ecosystem-based management Community LED pilot sites demonstrating close partnership with relevant industries or commercial activities for a more		

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				ecosystem-based development of economic opportunities. All 4 sites (100%) by end of project The LME Approach understood & implemented within maritime companies Evidence of the Use of "triple bottom line" accounting and / or other clear indication of "mainstreaming" ecosystem concerns within management demonstrated.		
Component 4 Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations	**Outcome 4.1** Identifying Innovative Management options for High Seas areas within LMEs	ABNJ and proposed ECS areas within LME management boundaries currently not 'managed' through any agreements or partnership arrangements – yet activities along the ABNJ boundaries with EEZs inevitably have transboundary effects and management and/or exploitation of ECS will also have transboundary consequences	A High Seas Policy Development Group established to negotiate with stakeholders and users of ABNJ New management initiatives negotiated and adopted (where appropriate) for ABNJ that fall within LME management area (through Alliance/Partnerships) Specific voluntary management and regulatory approaches agreed for high seas VMEs under threat of impact, also using the partnership/alliance approach). Support and pilot the negotiation and designation of high seas benthic/seamount MPAs as important ecological areas Identify financial mechanisms to support management strategies for ABNJ Cooperate and collaborate closely with UNEP on Marine Spatial Planning needs and development related to ABNJ New management practices evolved for ABNJ and ECS areas	Alliances and partnerships evolved and tested between countries bordering ABNJ and stakeholders using or traversing ABNJ (high seas waters) that fall within LME management boundaries Partnerships formalised between related initiatives (i.e. SAPPHIRE, IUCN, UNEP-WCMC, FFEM, FAO) with clear demarcations and collaborative agreements Marine Spatial Planning concepts and processes/practices adopted for high seas areas within LME management boundary Voluntary regulatory agreements adopted with resource users and stakeholders operating within the LME/ABNJ areas Reduced ship-based pollution as specified above. Frequency of hazardous spills reduced by 30% through project lifetime; ; non-LMR exploration and extraction agreements lead to measurable reduction	Formal agreements for cooperation in various management and regulatory processes (e.g. with maritime industry stakeholders; with other funding initiatives) Spatial Planning and Management Strategies identified for ABNJ within LME Management areas Regulatory agreements and compliance monitoring processes adopted by all stakeholders as part of an ABNJ 'Cooperative-Management-through-Alliance' process Regulatory agreements linked to agreed, adopted MPAs, BPAs and VMEs as part of overall Stakeholder Alliance formal decisions ABNJ-LME Technical Management Group adopted for WIO LMEs	Assumes that currently non-regulated stakeholders are willing to cooperate in management and regulatory partnerships for ABNJ Will require closer collaboration and cooperation between 'agencies' that currently view themselves as having primary jurisdiction over development of high seas management processes Such collaborative partnerships can be developed through trust but may require actual brokering from the maritime sector stakeholders to resolve

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				in biodiversity loss (at least 10% through project lifetime) Specific management strategies and designations (MPAs, BPAs, VMEs) negotiated and agreed with ABNJ stakeholders Increased formal protection given to important/sensitive habitats and species as identified in TDA, leading to an increase in protected and managed areas by at least 3-5% in each country. Voluntary offshore BPA and VME agreements provides an increase of over 15% in formally managed and protected areas across the LMEs Financial mechanisms identified and implemented for monitoring of sensitive and managed areas within LME-ABNJ and to support and ensure compliance mechanisms Proposed ECS and CAHSA management strategies approved by participating countries as 'best practices' Close collaboration with other regional and global bodies directly involved in development of ABNJ management approaches (e.g. FAO, UNEP, IUCN, DOALAS, etc.)	Standardised ECS and CAHSA Management Strategies published as guidelines for all countries Across-the-board stress reduction measures in place for ABNJ within LMEs as a result of voluntary agreements for management (i.e. ship-based pollution; hazardous spills; fisheries agreements; non-LMR exploration and extraction agreements; etc.) verified through reports from PPP Science bodies and from MTR and TE stages	
	Outcome 4.2 Demonstrating effective ocean policy implementation with	Marine spatial planning is not currently a standard methodology or requirement as a	Support to Mauritius and Seychelles for improved planning, coordination and management capacity for the joint management of their shared Extended	Detailed capture of baseline data within a focused transboundary diagnostic analysis for the Joint	A specific TDA document drafted and adopted by JMC for the Joint Management area to guide development of a	Principle risk will be full agreement by JMC of two countries to collaborate with SAPPHIRE and any

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
	emphasis on marine spatial planning, intersectoral cooperation, adoption of a blue ocean economy approach, innovative management mechanisms and capture of lessons for transfer and replication N.B. It should be noted that, under Outcome 4.2. One separate deliverable (4.2.1 - Identifying Innovative Management options for High Seas areas within LMEs) will be implemented through a separate UNDP Project Document (see Section 5 – Management Arrangements for further explanation).	tool to support a blue economic approach and ocean policy and governance *per se* No management mechanism currently exists (yet) for the ECS area – although an Agreement and Joint Commission are in place.	Continental Shelf Strengthened technical and managerial capacity for marine spatial planning in close collaboration with UNEP and the WIOLaB SAP implementation Project A data and information system established and supported by a data capture and gap-filling programme Best lessons and practices for joint ECS management captured Spatial Management exercises completed and subsequent Ocean Policy developed (South Africa) Coordinated sectoral ocean and coastal ecosystem management approach (South Africa) Integrated Environmental Planning adopted as a mechanism (South Africa) Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (South Africa) Best Lessons and Practices Publication (in collaboration with IW:LEARN) on development of national Ocean Policies Marine Spatial Planning within the Blue Economy framework demonstrated at selected localised areas within countries Best Lessons and Practices for MSP within Blue Economy framework captured (in collaboration with IW:LEARN) and made available at a global level	Management area Additional data capture undertaken as required by Joint Management Commission (JMC) and results extrapolated into an initial management strategy Long-term monitoring programme for Joint Management Area developed by JMC and countries with support from SAPPHIRE and other appropriate bodies A Joint Management Strategy refined and adopted by the countries Institutional arrangements within and between the two countries evolved by JMC and strengthened as appropriate Negotiations with non-country stakeholders over management of adjacent ABNJ area (Saya de Malha Bank) Stress reduction measures for entire JMA focus on reducing impacts on pristine Mascarene Plateau region and associated habitats and species (many yet to be mapped and identified). Allocation of 5-10% of Plateau region as EBSA with formal protection measures (either benthic MPA. Voluntary agreement benthic and high seas MPA, or specific control and management of activities) Formal adoption of an Ocean	management strategy Best Lessons and Practices for Joint Management of an Extended Continental Shelf and adjacent ABNJ captured in a formal report/publication Results of data capture exercises analysed and conclusions used to advise on management process Data reviews and studies published by countries and JMC as they feel appropriate A formal Joint Management Strategy adopted by the two countries for the ECS A proposed management strategy adopted by the two countries for the adjacent ABNJ Management strategy for adjacent ABNJ area (Saya de Malha Bank) negotiated and operational within an Alliance or partnership with non-country stakeholders Cabinet minutes / proceedings confirm adoption of an Ocean Policy for South Africa Formal documentation confirming the	other partners in collection of data and translation of data into draft management plans and strategy Countries and private sector groups will agree to act on voluntary practices SAPPHIRE and two countries (JMC) need to agree on a firm policy of data handling and ownership to recognise any sensitivities over resource management

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
				Policy for South Africa Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services established in South Africa Support to Operation Phakisa to deliver on its stress reduction objectives in South Africa that are related to the ocean economy including expanding aquacultural activities as alternate livelihoods and fisheries stress reduction (at 2 pilot sites-working closely with BCLME III project) and developing reduced impacts at 3-4 exploration sites around Agulhas LME coastal area of RSA Best Lessons and Practices for Ocean Policy Development published Blue Economy frameworks adopted at local community levels Best Lessons and Practices for MSP within Blue Economy framework available on IW:LEARN website	establishment of an Intergovernmental Science-Policy Platform Best Lessons and Practices for Ocean Policy Development available on IW:LEARN website Across-the-board stress reduction measures for entire JMA reducing impacts on pristine Mascarene Plateau region and associated habitats and species (many yet to be mapped and identified). Verified through Joint Management Commission records and minutes and through MTR and TE stages National and localised level stress reduction measures demonstrated through development of a national Ocean Policy with specific road-map and deliverables on stress reduction targets and a clear monitoring mechanism	
Component 5 Capacity Development to Realize improved ocean governance in the WIO region (Please note that this component will be closely	**Outcome 5.1** Capacity for improved Ocean Governance strengthened through training and support	Partnerships for SAP implementation activities have grown successfully but still need more effective coordination and prioritisation	Development of Partnerships (Regional Training Coordination Platform) for Capacity Building for Sustainable Marine Ecosystem Management CB&T priorities agreed and delivered (where feasible) as per MEDAs, TDA, SAP, National Training Plans and Regional Training Needs analysis. WIOSEA partners and countries adopt	Priorities for Capacity development reviewed at national/regional level in first year of SAPPHIRE project and based original on MEDA-TDA-SAP findings and guidance Capacity development priorities reaffirmed from MEDA-TDA-SAP process Priority needs relating to SAP Implementation identified and	Close coordination with Regional Economic Communities engaged into the SAPPHIRE work programme development process (through direct representation) Regional agreement on SAP priorities for Capacity Development along with a road-map for action and a	Most of these are already captured in the Aide Memoires and Memoranda of Understanding between Alliance Partners and the ASCLME Project; assumes parties to these agreements will be willing to extend them to a single working partnership

Project Strategy				Verifiable Indicators	Means of Verification	Risks and Assumptions
Project Delivery	**Outcome**	**Baseline**	**Output**			
linked and aligned with IW:LEARN and at least 1% of the GEF grant will be allocated to supporting IW:LEARN activities)			priority CB&T elements into a work-plan and road-map for capacity development for SAP implementation Specialist training courses in agreed priority areas such as Marine Spatial Planning, Blue Economy, Taxonomy, Ocean Governance, etc. Provide support to country and regional involvement in IndOOS and IOGOOS as appropriate Gender balance and support for underrepresented groups targeted Close collaboration with IW:LEARN to deliver lessons learned and best practices to the global LME community	responsibilities for support secured from Alliance partners Adoption of a partnership of institutions to provide a Regional Training Coordination Platform to deliver said programme Courses agreed and delivered on priority topics (including the annual IOI Ocean Governance course) Wherever possible, support given to IOGOOS through physical location and/or personnel/resources Gender balance and support as well as support to underrepresented groups and previously disadvantaged groups enshrined in SAPPHIRE business plan and work-plans	work-plan Specific areas of support and responsibility with Alliance partners captured through formal agreements and letters of intent IOI 4-weekcourse in Ocean Governance delivered, along with regional partners, on a an annual basis Regional practitioners and specialists in priority CB&T areas established, specifically for marine spatial planning, blue economy, taxonomy, etc.	brokered by SAPPHIRE.

4. TOTAL BUDGET AND WORKPLAN

(N.B THE SEPARATE UNDP PROJECT DOCUMENT "DEMONSTRATING INNOVATIVE OCEAN GOVERNANCE MECHANISMS AND DELIVERING BEST PRACTICES AND LESSONS FOR EXTENDED CONTINENTAL SHELF MANAGEMENT WITHIN THE WESTERN INDIAN OCEAN LARGE MARINE ECOSYSTEMS' HAS ITS OWN BUDGET)

Award ID:	00087612	Project	00094555
Award Title:	The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reform (WIO LME SAPPHIRE)		
Business Unit:	MUS10		
Project Title:	The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reform (WIO LME SAPPHIRE)		
PIMS no.	*5262*		
Implementing Partner (Executing Agency)	UNDP Mauritius		

Component	Responsible Party/ Implement Agent	Fund Code	Donor Name	ATLAS	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	TOTAL	Notes
Component 1: Supporting Management and Policy Reforms for SAP implementation through national and regional level collaboration and monitoring	Nairobi Convention Secretariat	62000	GEF	71400	Contractual Services – Individuals	19,448	94,952	114,400	143,000	114,400	85,800	572,000	1
				71200	International Consultants	3,740	18,260	22,000	27,500	22,000	16,500	110,000	2
				71300	Local Consultants	23,018	112,382	135,400	169,250	135,400	101,550	677,000	3
				71400	Contractual Services – Individuals	4,590	17,410	22,000	28,750	22,000	15,250	110,000	4
				71600	Travel	37,332	182,268	219,600	274,500	219,600	164,700	1,098,000	5
				72100	Contractual Services (Companies)	15,487	75,613	91,100	113,875	91,100	68,325	455,500	6
				72200	Equipment and Furniture	4,216	20,584	24,800	31,000	24,800	18,600	124,000	7
				72500	Supplies	4,845	23,655	28,500	35,625	28,500	21,375	142,500	8
				72800	Information and Technical Equipment	3,978	19,422	23,400	29,250	23,400	17,550	117,000	9
				74200	Audio Visual and Printing	3,808	23,592	27,400	33,000	27,400	21,800	137,000	10
				74500	Miscellaneous	1,462	7,138	8,600	10,750	8,600	6,450	43,000	11
				Total for Component		**121,924**	**595,276**	**717,200**	**896,500**	**717,200**	**537,900**	**3,586,000**	
Component 2: Stress Reduction through	Nairobi Convention Secretariat	62000	GEF	71400	Contractual Services – Individuals	5,712	27,888	33,600	42,000	33,600	25,200	168,000	12
				71200	International Consultants	3,400	16,600	20,000	25,000	20,000	15,000	100,000	13

Community-Level Stakeholder Engagement and Empowerment in SAP Implementation				71300	Local Consultants	13,464	65,736	79,200	99,000	79,200	59,400	396,000	14
				71400	Contractual Services - Individuals	1,496	7,304	8,800	11,000	8,800	6,600	44,000	15
				71600	Travel	8,806	42,994	51,800	64,750	51,800	38,850	259,000	16
				72100	Contractual Services (Companies)	4,046	19,754	23,800	29,750	23,800	17,850	119,000	17
				72200	Equipment and Furniture	782	3,818	4,600	5,750	4,600	3,450	23,000	18
				72500	Supplies	1,360	6,640	8,000	10,000	8,000	6,000	40,000	19
				72800	Information and Technical Equipment	850	4,150	5,000	6,250	5,000	3,750	25,000	20
				74200	Audio Visual and Printing	816	3,984	4,800	6,000	4,800	3,600	24,000	21
				74500	Miscellaneous	1,428	6,972	8,400	10,500	8,400	6,300	42,000	22
				Total for Component		**42,160**	**205,840**	**248,000**	**310,000**	**248,000**	**186,000**	**1,240,000**	
Component 3: Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices	Nairobi Convention Secretariat			71400	Contractual Services - Individuals	5,372	26,228	31,600	39,500	31,600	23,700	158,000	23
				71200	International Consultants	2,210	10,790	13,000	16,250	13,000	9,750	65,000	24
				71300	Local Consultants	3,842	18,758	22,600	28,250	22,600	16,950	113,000	25
				71400	Contractual Services - Individuals	4,964	24,236	29,200	36,500	29,200	21,900	146,000	26
				71600	Travel	5,814	28,386	34,200	42,750	34,200	25,650	171,000	27
				72100	Contractual Services - (Companies)	1,326	6,474	7,800	9,750	7,800	5,850	39,000	28
				74200	Audio Visual and Printing	884	4,316	5,200	6,500	5,200	3,900	26,000	29
				74500	Miscellaneous	1,258	6,142	7,400	9,250	7,400	5,550	37,000	30

				Total for Component		**25,670**	**125,330**	**151,000**	**188,750**	**151,000**	**113,250**	**755,000**	
Component 4: Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations	Nairobi Convention Secretariat			71400	Contractual Services - Individuals	7,990	39,010	47,000	58,750	47,000	35,250	235,000	31
				71200	International Consultants	3,230	15,770	19,000	23,750	19,000	14,250	95,000	32
				71300	Local Consultants	7,106	34,694	41,800	52,250	41,800	31,350	209,000	33
				71400	Contractual Services – Individuals	2,210	10,790	13,000	16,250	13,000	9,750	65,000	34
				71600	Travel	10,030	48,970	59,000	73,750	59,000	44,250	295,000	35
				72100	Contractual Services (Companies)	13,668	66,732	80,400	100,500	80,400	60,300	402,000	36
				72200	Equipment and Furniture	1,836	8,964	10,800	13,500	10,800	8,100	54,000	37
				72300	Materials and goods	1,054	5,146	6,200	7,750	6,200	4,650	31,000	38
				72800	Information and Technical Equipment	1,360	6,640	8,000	10,000	8,000	6,000	40,000	39
				74200	Audio Visual and Printing	2,482	12,118	14,600	18,250	14,600	10,950	73,000	40
				74500	Miscellaneous	1,360	6,640	8,000	10,000	8,000	6,000	40,000	41
				Total for Component		**52,326**	**255,474**	**307,800**	**384,750**	**307,800**	**230,850**	**1,539,000**	
Component 5: Capacity Development for Effective SAP Implementation and associated management approaches (This component will be closely linked and aligned with IW:LEARN. 1% of grant will be supporting IW)	Nairobi Convention Secretariat			71400	Contractual Services - Individuals	9,350	45,650	55,000	68,750	55,000	41,250	275,000	42
				71200	International Consultants	510	2,490	3,000	3,750	3,000	2,250	15,000	43
				71300	Local Consultants	8,092	39,508	47,600	59,500	47,600	35,700	238,000	44
				71400	Contractual Services - Individuals	4,046	19,754	23,800	29,750	23,800	17,850	119,000	45
				71600	Travel	9,928	48,472	58,400	73,000	58,400	43,800	292,000	46
				72100	Contractual Services - (Companies)	1,700	8,300	10,000	12,500	10,000	7,500	50,000	47
				72200	Equipment and Furniture	612	2,988	3,600	4,500	3,600	2,700	18,000	48
				75700	Training, Workshops and Confer	1,020	4,980	6,000	7,500	6,000	4,500	30,000	49

				72800	Information and Technical Equipment	102	498	600	750	600	450	3,000	50
				74200	Audio Visual and Printing	1,037	5,063	6,100	7,625	6,100	4,575	30,500	51
				74500	Miscellaneous	1,224	5,976	7,200	9,000	7,200	5,400	36,000	52
				Total for Component		**37,621**	**183,679**	**221,300**	**276,625**	**221,300**	**165,975**	**1,106,500**	
Component 6: Project Management and Coordination Unit	Nairobi Convention Secretariat			71400	Contractual Services - Individuals	12,750	59,000	59,000	59,000	59,000	59,000	307,750	53
				71300	Local Consultants	2,000	1,000	1,000	1,000	1,000	1,000	7,000	54
				71400	Contractual Services - Individuals	0	14,000	15,000	15,000	17,000	12,000	73,000	55
				71600	Travel	0	4,000	4,000	4,000	4,000	4,000	20,000	56
				72100	Contractual Services (Companies)	1,000	1,000	2,000	2,000	2,000	1,000	9,000	57
				72200	Equipment and Furniture	3,000	4,500	2,750	2,750	2,750	1500	17,250	58
				72500	Supplies	1,000	2,500	2,750	2,750	2,750	2,500	14,250	59
				72800	Information and Technical Equipment	2,000	2,500	2,750	2,750	2,750	2,500	15,250	60
				74200	Audio Visual and Printing	2,000	2,500	2,750	2,750	2,750	2,500	15,250	61
				74500	Miscellaneous	0	1,000	1,000	1,000	1,000	1,000	5,000	62
				73400	Rental & Maint of Other Equip	6,250	5,000	5,000	5,000	5,000	5,000	31,250	63
				74100	Professional Services	0	5,000	5,000	5,000	5,000	5,000	25,000	64
				Total for Component		**30,000**	**102,000**	**103,000**	**103,000**	**105,000**	**97,000**	**540,000**	
Project Total GEF						**309,701**	**1,467,599**	**1,748,300**	**2,159,625**	**1,750,300**	**1,330,975**	**8,766,500**	

Summary of Funds:

Funding Source	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Amount Year 6	Total
GEF	309,701	1,467,599	1,748,300	2,159,625	1,750,300	1,330,975	8,766,500
Participating Governments	10,575,361	51,632,647	62,208,009	77,760,011	62,208,009	46,656,007	311,040,044
UN Agency (UNDP)	1,469	7,171	8,640	10,800	8,640	6,480	43,200
UN Agency (IMO)	8,500	41,500	50,000	62,500	50,000	37,500	250,000
NGO (BirdLife)	1,700	8,300	10,000	12,500	10,000	7,500	50,000
NGO (Future Oceans Alliance)	2,210	10,790	13,000	16,250	13,000	9,750	65,000
IGO (WIOMSA)	71,740	350,260	422,000	527,500	422,000	316,500	2,110,000
IUCN	57,800	282,200	340,000	425,000	340,000	255,000	1,700,000
Bilateral (NOAA)	86,403	421,848	508,250	635,313	508,250	381,188	2,541,250
TOTAL	11,114,884	54,222,315	65,308,199	81,609,498	65,310,199	49,000,899	326,565,994

Budget Notes:

NOTE	BUDGET ALLOCATIONS	ATLAS	DESCRIPTION
	Component 1: Supporting Policy Harmonization and Management Reforms towards improved Ocean Governance		
1	Internationally recruited PMU staff (CTA = $75,000 p.a., TA = $29,000 p.a.)	71400	Contractual Services - Individuals
2	International Consultant inputs to PSC; Data and Science Analysis and Management Specialists; Regional Compliance experts on MARPOL related issues ($22,000 p.a.)	71200	International Consultants
3	Local Consultants working with in-country and regional technical committees and groups ($135,000 p.a.)	71300	Local Consultants
4	Local, bilingual project support staff ($25,500 per year). Cost-shared with SAPPHIRE Joint Management Area Demonstration sub-project	71400	Contractual Services - Individuals
5	Attendance of 9 countries and invited partners at Regional Steering Committees, Regional Scientific Advisory Panels ($60,000 p.a.): Inter-Project Coordination ($20,000 p.a.); National intersectoral committees ($20,000 p.a.) Attendance of SAP representation at regional and global conventions ($30,000): Within-region travel on technical missions ($20,000); Attendance of countries at Science-to-Governance workshops ($20,000 p.a.): Regional Project Coordination Forum Attendance at approx. ($9,000 p.a.) Miscellaneous Travel to attend appropriate scientific and policy level meetings.	71600	Travel
6	Hiring of venues for SAP-related scientific and policy level meetings, Coordination meetings, ($75,000 P.A); Other contract services including translation ($15,000 p.a.)	72100	Contractual Services (Companies)
7	Support to country technical offices for equipment as required including PPT projectors etc. ($2,755 Per country p.a.)	72200	Equipment and Furniture
8	Technical supplies ($315 per country p.a.)	72500	Supplies
9	IT and software support including laptops, printers etc. $2,600 per country p.a.	72800	Information and Technical Equipment
10	Printing costs for Revised MEDAS and National Action Plans as well as policy briefings	74200	Audio Visual and Printing

11	Miscellaneous expenses (@$8,000 p.a.)	74500	Miscellaneous
Component 2: Stress Reduction through Community-Level Stakeholder Engagement and Empowerment in SAP Implementation			
12	Support to Community and Artisanal Fisheries Component from International Staff $22,000 p.a. for PM; $11,600 p.a. for TA)	71400	Contractual Services - Individuals
13	International Consultant support for EBM integration into LEDS ($8.00 P.A.); Small-scale fisheries experts (at $12,000 p.a.)	71200	International Consultants
14	Local expert specialists in LED and EB (32,000 P.A.); Specialists in small-scale artisanal fisheries management ($40,000 p.a.)	71300	Local Consultants
15	Support from local staff to community LEDS and artisanal fisheries demos ($6,800 p.a.)	71400	Contractual Services - Individuals
16	Support for expert travel and workshop travel in-country ($6,000 per demo site p.a.)	71600	Travel
17	Contracting of services- international specialist bodies, hiring of workshop venues ($23,800 p.a.)	72100	Contractual Services (Companies)
18	Equipment support to demo sites/offices in countries ($4.600 p.a. Equivalent to $575 per site.)	72200	Equipment and Furniture
19	Supplies to support demo offices at 8 demo sites ($8,000 p.a., equivalent to $1,000 per site)	72500	Supplies
20	IT and technical support (5,000 p.a., equivalent to $625 per site)	72800	Information and Technical Equipment
21	Audi-visual equipment and translations ($4,800 p.a. equivalent to $600, per site)	74200	Audio Visual and Printing
22	Miscellaneous expenses (@$5,250p.a. equivalent to @$656 per site p.a.)	74500	Miscellaneous
Component 3 Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices			
23	Support from international Staff (CTA at $20,000 p.a.; and TA at $11,600 p.a.)	71400	Contractual Services - Individuals
24	International experts on PPP and partnership management agreements ($8,125 p.a.)	71200	International Consultants
25	Local consultancies and experts working with private sector on development of joint management approaches ($22,600 p.a.)	71300	Local Consultants
26	Support from local staff to Private sector engagement in SAP objectives and deliverables ($20,000 p.a.). cost sharing with SAPPHIRE Joint Management Area Demonstration sub-project	71400	Contractual Services – Individuals
27	Travel costs to attend international meetings, negotiations with Private sector, Regional Liaison Officer (34,200 p.a.)	71600	Travel
28	Meeting and conference venues; regional and sub-regional workshop costs ($7,800 p.a.)	72100	Contractual Services (Companies)
29	Industry briefing documents and translations ($5,200 p.a.)	74200	Audio Visual and Printing
30	Miscellaneous support to industry liaison and negotiations (@$7,400 p.a.)	74500	Miscellaneous

Component 4: Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations			
31	Support from international Staff (CTA at $30,000 p.a.; and TA at $17,000 p.a.)	71400	Contractual Services - Individuals
32	International expert advice on establishment of a High Seas (CAHSA) Alliance (or similar body and Agreement) for management of Contiguous Adjacent High Seas Areas within the LMEs. Marine {Spatial planning and Ocean Policy experts. Also Expert advice on Science-Policy Interface and development of an evidence-based decision-making process ($19,000 p.a.)	71200	International Consultants
33	Local Specialists to support Ocean Policy Demos and Marine Spatial Planning and Blue Economy Demos within region ($41,800 p.a.)	71300	Local Consultants
34	Local office staff support to Component 4 ($3,000 p.a.). Cost-sharing with SAPPHIRE Joint Management Area Demonstration sub-project	71400	Contractual Services - Individuals
35	Travel by Project Staff to demo areas twice a year. High Seas Policy Development working group meetings; meetings of High Seas Alliance; Ecosystem gaps analysis in adjacent high seas areas ($59,000 p.a.)	71600	Travel
36	Gaps analysis in Somali Current / East African Current areas ($80,400 p.a.)	72100	Contractual Services (Companies)
37	Equipment requirements for gaps analysis plus equipment support to demo offices ($10,800 p.a.)	72200	Equipment and Furniture
38	General stores and materials for demos and for gaps analysis ($6,200 p.a.)	72300	Materials & Goods
39	IT and technical for Ocean Policy and Spatial Planning demos ($8,000 p.a.)	72800	Information and Technical Equipment
40	Audio-Visual support and translation for demos (9,125 p.a.)	74200	Audio Visual and Printing
41	Miscellaneous expenses (@$8,000 p.a.)	74500	Miscellaneous
Component 5 Capacity Development for Effective SAP Implementation and associated management approaches			
42	Support to CB&T from international Staff (PM $20,000 p.a.; TA $15,000 p.a.) Recruit Part-time CB&T Organiser/Coordinator ($20,000 p.a.)	71400	Contractual Services - Individuals
43	Marine Spatial planning expert to support capacity building courses in region ($15,000)	71200	International Consultants
44	National/regional consultant experts to review CB&T Plans for each country (approx. $8,500 per country) ; Attendance and input to various regional and sub-regional CB&T Planning and delivery workshops ($15,350 p.a.); Local expert inputs to regional course on Marine Spatial Planning and Taxonomy (3 courses x $28,250 p.a.)	71300	Local Consultants
45	Support from local staff to planning and organisation of CB&T training courses, Distribution of information, organising travel, DSA and accommodation ($13,800 p.a.). Cost-sharing with SAPPHIRE Joint Management Area Demonstration sub-project	71400	Contractual Services - Individuals
46	Travel and DSA for attendance at regional CB&T courses and International Global Courses (e.g. IOI; WMU; NOAA; Ocean Teacher) $58,400 p.a.	71600	Travel
47	Cost of venues and hiring lecture facilities ($10,000 p.a.)	72100	Contractual Services (Companies)
48	Equipment support for training and for CB&T Coordinator ($3,600 p.a.)	72200	Equipment and Furniture
49	training courses for students ($6,000 p.a.)	75700	Training, Workshops and Confer
50	IT and equipment to support CB&T - $3,000 total	72800	Information and Technical Equipment

51	Laptop, software and Projector for CB&T Coordinator ($5,500); Other Audio-Visual aids and translation ($5,000 p.a.)	74200	Audio Visual and Printing
52	Miscellaneous expenses (@$7,200)	74500	Miscellaneous
Component 6: Project Management and Coordination			
53	For administrative Project Management within PMU; $60,000 for MTE and Terminal Evaluation	71400	Contractual Services - Individuals
54	Management costs for staff contracts (for 7xxxx contracts)	71300	Local Consultants
55	Administrative support for Project Management at PMU	71400	Contractual Services - Individuals
56	PMU office travel costs	71600	Travel
57	Local contracts for telephones and other utilities not covered by Host Government	72100	Contractual Services (Companies)
58	For equipment and furniture for PMU Offices	72200	Equipment and Furniture
59	Office supplies, (paper, toner, cleaning products, etc.)	72500	Supplies
60	IT costs for the PMU, including laptops	72800	Information and Technical Equipment
61	$6,000 Powerpoint projector for office; Office printing costs	74200	Audio Visual and Printing
62	Miscellaneous	74500	Miscellaneous
63	Maint, Oper of Transport Equip for PMU	73400	Rental & Maint of Other Equip
64	Budget for Audit (@$5,000 p.a. except for the first year)	74100	Professional Services

PROJECT BUDGET BY COMPONENT AND DELIVERABLE

Outcome	Deliverable	GEF Budget
Project Component Outcomes and Deliverables		
Component 1: Supporting Policy Harmonization and Management Reforms towards improved Ocean Governance		**$3,586,000**
Outcome 1.1 Policy, legislative and institutional reforms and realignment in support of the SAP are implemented at national and regional level as appropriate, with emphasis given to strengthening and supporting existing processes and mechanisms including regional bodies (such as Conventions, Commissions, and Regional Scientific Bodies). Coordination and management mechanism are strengthened at both national and regional levels	Deliverable 1.1.1: Agreement on a regional SAP Implementation Policy Steering Committee with membership from all of the participating countries and including Intergovernmental and Non-Governmental Organisations.	$345 000
	Deliverable 1.1.2: Adoption of a regional SAP Scientific and Technical Advisory Panel with membership from all appropriate scientific institutions and including Intergovernmental and Non-Governmental Organisations.	$320 000
	Deliverable 1.1.3: Adoption of National Intersectoral Committees. Wherever possible, these would be evolved from existing Committees (e.g. ICM bodies) rather than developing new bodies. If no such body exists then assistance and support would be given to develop such an intersectoral body which is essential to effectively anchor SAP implementation at the national level.	$161 000
	Deliverable 1.1.4: Adoption of National Technical Committees to handle SAP technical and scientific issues and activities in-country.	$202 000
	Deliverable 1.1.5: Implementation of the priority national requirements for strengthening and improving national legislation, policy and institutional arrangements in line with the intentions of the LME SAP and to support the ecosystem-based approach, including national commitments to regional and global Agreements, Conventions and Protocols. This will deliverable would also include translation/incorporation of the Marine Ecosystem Diagnostic Analyses into National Action Plans as appropriate.	$773 000
Outcome 1.2: Technical and institutional capacity developed to deliver Knowledge-Based Governance approaches by delivering scientific results to management and policy makers for adaptive management decision-making	Deliverable 1.2.1: Regional and National Ecosystem Monitoring Programmes adopted throughout the WIO LMEs as part of SAP Implementation	$426 000
	Deliverable 1.2.2: Support to the appropriate regionally and globally mandated bodies and Conventions (e.g. Nairobi Convention, IMO, etc.) toward the adoption of regional standards for marine water quality parameters and contaminants/pollutants	$208 000
	Deliverable 1.2.3: Strengthening and implementation of a Regional and National Science-to-Governance process and delivery in support of effective Adaptive Management and Policy Decisions	$274 000
	Deliverable 1.2.4: A standardised regional approach to assessment techniques for evaluating ecosystem goods and services and identifying the cost-benefits of the ecosystem approach and ecosystem based management	$32 000
	Deliverable 1.2.5: Marine Spatial Planning developed regionally as a tool in support of Science-to-Governance mechanisms and made available to all countries.	$160 000
Outcome 1.3 Collaborative and cooperative mechanisms agreed and strengthened between national, regional and global partners and stakeholders	Deliverable 1.3.1: Agreements on assistance and support from the SAPPHIRE Project to countries and IGOs to assist them as requested in their functions and responsibilities for SAP implementation with emphasis on collaboration and cost-effective cooperation on transboundary issues	$475 000
	Deliverable 1.3.2: Consolidation of the WIOSEA partnership and definition of its support role through one Agreement which includes or references decisions by partners on support to SAP Implementation where appropriate	$90 000

	Deliverable 1.3.3: Support to facilitation of appropriate regional meetings for project collaboration and discussion, sharing of scientific results and conclusions, and regular interaction with SAP Implementation partners. Long-term planning and road-map for sustainability of SAP management	$120 000
Component 2: Stress Reduction through Community-Level Stakeholder Engagement and Empowerment in SAP Implementation		$1 240 000
Outcome 2.1: Integrating the Ecosystem-based Management approach into Local Economic Development Plans at selected communities at Pilot level	Deliverable 2.1.1: Communities sensitised about values of LME goods and Services by establishment of a regional community engagement and local economic empowerment group (as a sub-set of the STAP) to steer the LED-Ecosystem Based Management (EBM) approach in-country at the community level	$145 000
	Deliverable 2.1.2: Promotion and Implementation of ecosystem-friendly economic pilot activities at the community level	$372 000
Outcome 2.2: Stress reduction through ecosystem-based practices among artisanal and subsistence fisheries	Deliverable 2.2.1: Broad information on different categories of small scale fishing communities in the region and an assessment of past, present and planned interventions.	$242 000
	Deliverable 2.2.2: Selection of four small scale fishing communities and a detailed understanding of local governance and ecological knowledge systems within each community	$71 000
	Deliverable 2.2.3: Selected interventions successfully introduced into four small scale fishing communities and deliver Artisanal Fisheries Management Plans for inclusion into National Fisheries Management Strategies	$410 000
Component 3 Stress Reduction through Private Sector/Industry Commitment to transformations in their operations and management practices		$755 000
Outcome 3.1: Private Sector engagement and participation in SAP implementation and through risk reduction and contingency response mechanisms using public-private sector partnership agreements along with regional partners (Nairobi Convention, WWF, IUCN, etc.). Furthermore, facilitate the adoption and implementation of mechanisms which would aim to facilitate Private Sector engagement in SAP implementation, ecosystem monitoring and associated stress reduction activities. The Private Sector will work with SAPPHIRE and its partners to 'mainstream' the ecosystem approach into their daily activities so as to reduce and mitigate impacts on EQOs.	Deliverable 3.1.1: Adoption of Public-Private Sector Partnerships (PPP) working within the SAP implementation management arrangements	$218 000
	Deliverable 3.1.2: Piloting of an ocean-industry initiative, in collaboration with the WOC, within the WIO LMEs, contributing to ongoing research and EQO indicator monitoring programmes (linked into the Ocean Health Index) as envisioned in the SAP	$30 000
	Deliverable 3.1.3: The Private Sector supporting SAP implementation and reduction in ecosystem stress and acknowledging and adopting the LME Approach. The Private Sector "mainstreaming" its use and consideration within everyday management practices and business activities by actively contributing to SAP implementation and by ensuring its operational practices recognise the holistic Ecosystem Approach and implement mechanisms to reduce stress	$160 000
	Deliverable 3.1.4: Collaboration with other appropriate regional projects, IGOs and NGOs so as to involve them in the development of (and benefit from) public / private sector partnerships in Ocean Governance.	$60 000
	Deliverable 3.1.5: Address the potential impacts of the growing oil and gas development in the region through A. Support to the development and implementation of a full Strategic Environmental Assessment, and B. Negotiate the identification and implementation of a Regional Response Centre, which can effectively and swiftly coordinate regional responses to emergencies, with a focus on shipping (Search and Rescue) and response to oil and gas and other marine pollution incidents likely to show effects at transboundary scale. National plans support this regional activity.	$287 000
Component 4: Delivering Best Practices and Lessons through Innovative Ocean Governance Demonstrations		$1 539 000
Outcome 4.1: Identifying Innovative Management options for High Seas areas within LMEs	Deliverable 4.1.1: Negotiation of Alliances and Partnerships between bordering countries and user/stakeholders of ABNJ which fall within the LME system so as to develop management agreements	$180 000
	Deliverable 4.1.2: Specific activities undertaken through partnership agreements (such as the CAHSA Alliance as above) to support SAP Implementation requirements.	$360 000

	Deliverable 4.1.3: Identifying Innovative Management options for High Seas areas within LMEs	$210 000
Outcome 4.2: Demonstrating effective ocean policy implementation with emphasis on marine spatial planning, intersectoral cooperation, adoption of a blue ocean economy approach, innovative management mechanisms and capture of lessons for transfer and replication	Deliverable 4.2.1: Improved planning, coordination and management capacity for the Extended Continental Shelf jointly shared by Mauritius and Seychelles (implemented through separate UNDP project document)	$0
	Deliverable 4.2.2: Ocean policy and spatial management implementation demonstrated within South Africa with a focus on intersectoral collaboration and management mechanisms	$385 000
	Deliverable 4.2.3: Demonstrating Marine Spatial Planning within a Blue Economy framework in selected areas within participating countries for further replication and transfer of lessons. If and where appropriate, these MSP demonstration sites can be linked to the LED/EBM demonstrations under Component 2 above.	$404 000
Component 5 Capacity Development for Effective SAP Implementation and associated management approaches (Please note that this component will be closely linked and aligned with IW:LEARN and at least 1% of the GEF grant will be allocated to supporting IW:L		$1 106 500
Outcome 5.1: Regional institutional arrangements strengthened for partnership-based capacity development	Deliverable 5.1.1: A Capacity Building and Training Programme adopted at the regional and national levels throughout the WIO LMEs region (based on original MEDA-TDA-SAP findings and guidance)	$506 000
	Deliverable 5.1.2: Operational Strategy and Management mechanism for delivery of required capacity development and training agreed by SAPPHIRE partners in support of SAP implementation activities.	$430 500
	Deliverable 5.1.3: Support for country and regional involvement in the Indian Ocean Observing System (IndOOS) and its Resources Forum (IRF) as well as SIBER (Sustained Indian Ocean Biogeochemistry and Ecosystem Research - an international programme co-sponsored by IMBER and IOGOOS [Indian Ocean Global Ocean Observing System]) to coordinate closely with SAPPHIRE Monitoring Programmes and other related activities and initiatives in the western Indian Ocean	$170 000
Component 6: Project Management and Coordination		$540 000
Outcome 6.1. Project Management and Coordination Unit	PCU Management, Equipment, Maintenance, Utilities. Project Monitoring and Evaluation	$540 000
TOTAL FOR ALL COMPONENTS		**$8 766 500**

COMPARISON OF GEF-REQUESTED FUNDING AGAINST APPROVED PIF FUNDING	
TOTAL GEF FUNDING FOR THE SAPPHIRE PROJECT	$8,766,500
THE TOTAL GEF FUNDING FOR THE UNDP PROJECT "DEMONSTRATING INNOVATIVE OCEAN GOVERNANCE MECHANISMS AND DELIVERING BEST PRACTICES AND LESSONS FOR EXTENDED CONTINENTAL SHELF MANAGEMENT WITHIN THE WESTERN INDIAN OCEAN LARGE MARINE ECOSYSTEMS'	$2,210,391
TOTAL FOR SAPPHIRE AND EXTENDED CONTINENTAL SHELF DEMO	$10,976,891
Total funding approved by GEF in PIF	$10,976,891

5. MANAGEMENT ARRANGEMENTS

UNDP will be the GEF Implementing Agency for GEF for this Project, with UNDP Country Office responsible for Mauritius and Seychelles as the Principal Project Resident Representative. Following the recommendation from GEF Secretariat and taking into account its relevant mandates in the Western Indian Ocean region, Nairobi Convention Secretariat (administered by UNEP) will be fully involved in the implementation of the project, except for the Deliverable 4.2.1 (Demonstrating Innovative Ocean Governance Mechanisms and Delivering Best Practices and Lessons for Extended Continental Shelf Management within the Western Indian Ocean Large Marine Ecosystems) under Outcome 4.2 (Demonstrating innovative management options within specific marine space within the WIO LME).

Because UNEP is not among the UN Agencies which have signed the agreement with UNDP at a corporate level so that UNDP can select them as an Implementing Partner, the project will be directly implemented (DIM) by UNDP through UNDP Mauritius Country Office with UNEP selected by Mauritius CO as a Responsible Party through the signature on the Project Coordination Agreement (PCA). UNDP Mauritius Country Office has secured the DIM approval from the RBA HQ and the approval will be renewed on annual basis.

Project Coordination Unit for the SAPPHIRE project will be hosted by the Government of Seychelles. The Project Coordinator and one full-time Technical Specialist will be supported by locally recruited support staff. In addition, a Finance Officer and a Procurement Officer will be based at the Nairobi Convention Secretariat, jointly financed by the UNDP-GEF SAPPHIRE project and the UNEP-GEF WIOSAP project, to strengthen institutional capacity of the Convention Secretariat and ensure efficient delivery of the two projects. Further, a technical staff who will support the Nairobi Convention to effectively coordinate the implementation of two SAPs is also envisioned to be placed at the Nairobi Convention Secretariat, also to be jointly financed by the two projects[7]. All these posts financed by the project will be (jointly where appropriate) by the Project Coordinator.

The sustainable coordination and monitoring process for overall, long-term SAP implementation will be agreed by the WIO countries in close consultation with the relevant regional institutions such as NBO Convention and SWIOFC. The purpose of SAPPHIRE as a Project is not to set up any SAP implementation coordination body as a separate entity. Rather, the function of SAPPHIRE is to provide financing for the coordination and monitoring of the overall WIO LME SAP through existing mandated bodies with the responsibility for SAP implementation. Appropriate institutional option(s) for SAP implementation monitoring and coordination will be explored during the project implementation in close coordination with the UNEP GEF WIO SAP project.

Due to the very specific management arrangements for Deliverable 4.2.1 (**Demonstrating Innovative Ocean Governance Mechanisms and Delivering Best Practices and Lessons for Extended Continental Shelf Management within the Western Indian Ocean Large Marine Ecosystems**), there is a separate UNDP Project Document for this specific SAP Implementation activity. This was specifically requested by the countries in view of the fact that Mauritius and Seychelles already have a Joint Management Commission that makes decisions related to their Joint Management Area and the associated Extended Continental Shelf. Given its mandates, the JMC is ideally positioned to play a role of the Steering Committee for this separate project together with UNDP. It would not be appropriate for other countries to be a part of this JMC, which is a formal body created as part of a formal Treaty between these two countries. Consequently, it has been agreed by the countries and UNDP that interventions

[7] Joint financing of these three positions at the Nairobi Convention Secretariat by the UNDP-GEF SAPPHIRE project and the UNEP-GEF WIOSAP project was discussed and agreed during the meeting among UNDP, UNEP, and Nairobi Convention Secretariat on 10 May 2016.

supported by the SAPPHIRE Project concerning the JMA should 'stand-alone' in relation to daily project management and coordination and in terms of its separate 'steering committee'. This is the reason for the development of a separate sub-project document for the Deliverable 4.2.1.

Management arrangement of the JMA sub-project is detailed in the separate project document dedicated for that component.

As what is effectively a 'sub-component' of the overall SAPPHIRE SAP implementation project, the JMA Demonstration project will actively engage in and will work closely with and alongside the wider UNDP GEF SAPPHIRE Project and they will report and review progress jointly as per the Project Implementation Review process and will undertake a single Mid-Term Review and a single Final Evaluation with the overall SAPPHIRE project. One of the Components of the SAPPHIRE Project will be specifically addressing coordination and will therefore provide the necessary vehicle to ensure such collaboration and coordination for the JMA Demonstration project. Outcome 1.3 of the SAPPHIRE Project will deliver collaborative and cooperative mechanisms and strengthen national, regional and global partnerships and stakeholder engagement. The outputs from this outcome focus on the development of more effective collaboration and coordination of SAP implementation activities and decision-making at the regional level, and on reciprocal representation on Steering Committees, technical bodies and working groups, etc. They also provide support to facilitation of appropriate regional meetings for project collaboration and discussion, sharing of scientific results and conclusions, and regular interaction with SAP Implementation partners and facilitate decisions on long-term planning and a road-map for sustainability of SAP management.

The Project Managers from SAPPHIRE and from the JMA Project will sit on each other's Steering Committees.

5.1. Project Management Structure

For the SAPPHIRE project (executed by the Nairobi Convention Secretariat):

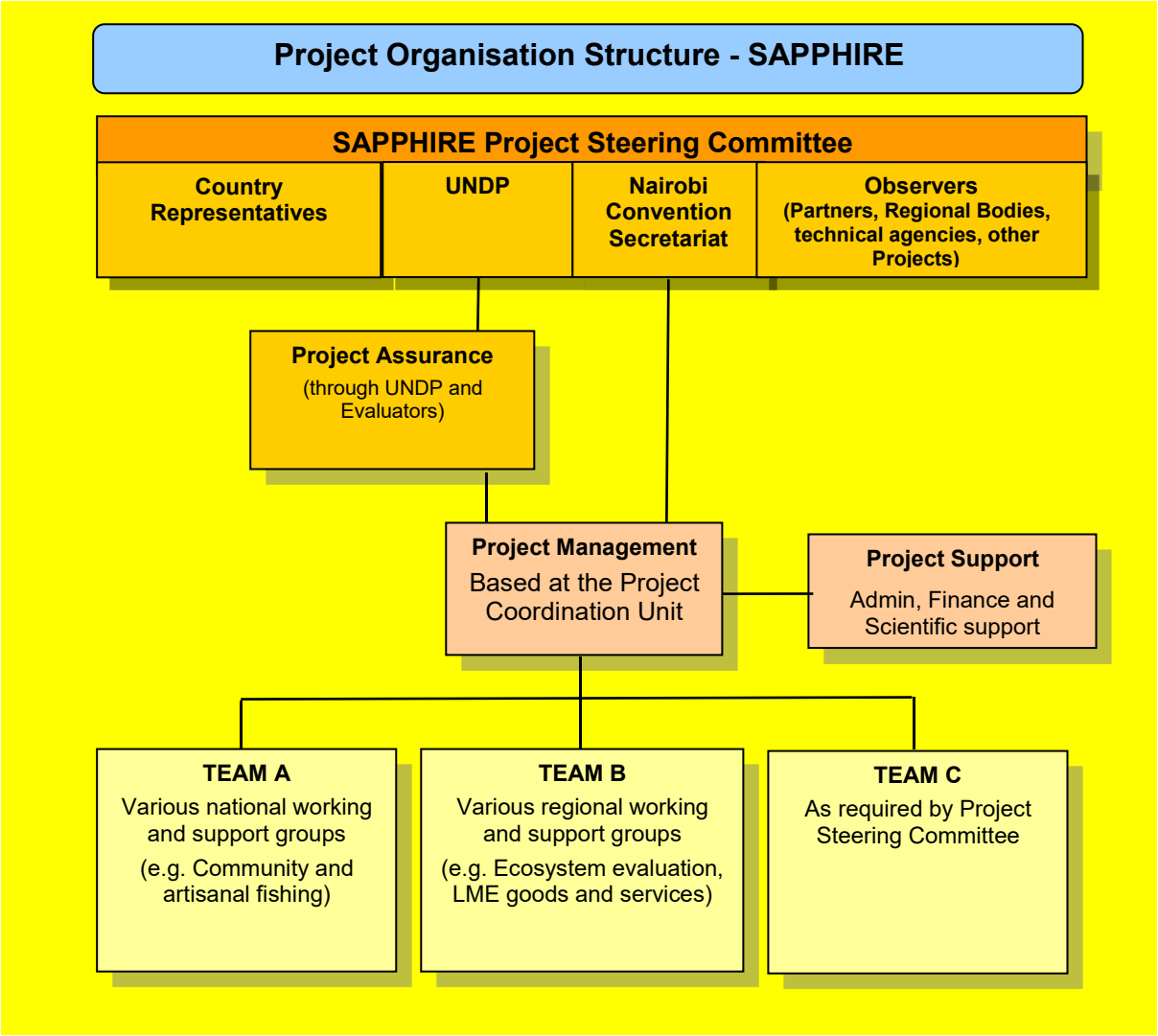


Figure 3: Project Management Structure for SAPPHIRE

Project Execution will be through the Nairobi Convention Secretariat in accordance with standard UN-compatible operational, financial guidelines and procedures. NC Secretariat will remain accountable to UNDP for the delivery of agreed outputs as per agreed project work plans, and for financial management, and ensuring cost-effectiveness. In addition to budget management and expenditures control, responsibilities will include hiring and administration of international and local personnel, procurement of goods and service, travel arrangements and other miscellaneous support as required. Some delegation of administrative and financial authority will be given to the PCU by the Nairobi Convention Secretariat in order to facilitate day-to-day management and procurement decisions. These will be defined in the Procurement and Implementation Plans (see below – Project Inception Meeting).UNDP Offices may provide project execution support to the Nairobi Convention Secretariat upon requests on a cost recovery basis.

The Project implementation will be guided by a Project Steering Committee (PSC) comprised of the representatives of the participating countries, UNDP (as the Implementing Agency) and the Nairobi Convention Secretariat (as the Executing Agency). Other donors and partners will be added to the PSC as appropriate (see 5.2 below). The PSC, as the highest decision-making body for the project, will provide policy and strategic guidance based upon project progress assessments and related recommendations from the PCU and ensures the project-supported activities will be mainstreamed national policy dialogues as necessary. The PSC will review and approve annual project reviews and work-plans, technical documents, budgets and

financial reports. The PSC will provide general strategic and implementation guidance to the PMU. It will meet annually, and make decisions by consensus. The specific rules and procedures of the PSC will be reviewed by stakeholders at the project inception meeting and decided by the PSC at its first meeting. A quarterly work-plan will also be adopted on an annual basis at the Inception meeting and at subsequent Project Steering Committee meetings.

For the JMA demonstration project (executed by the Government of Mauritius):

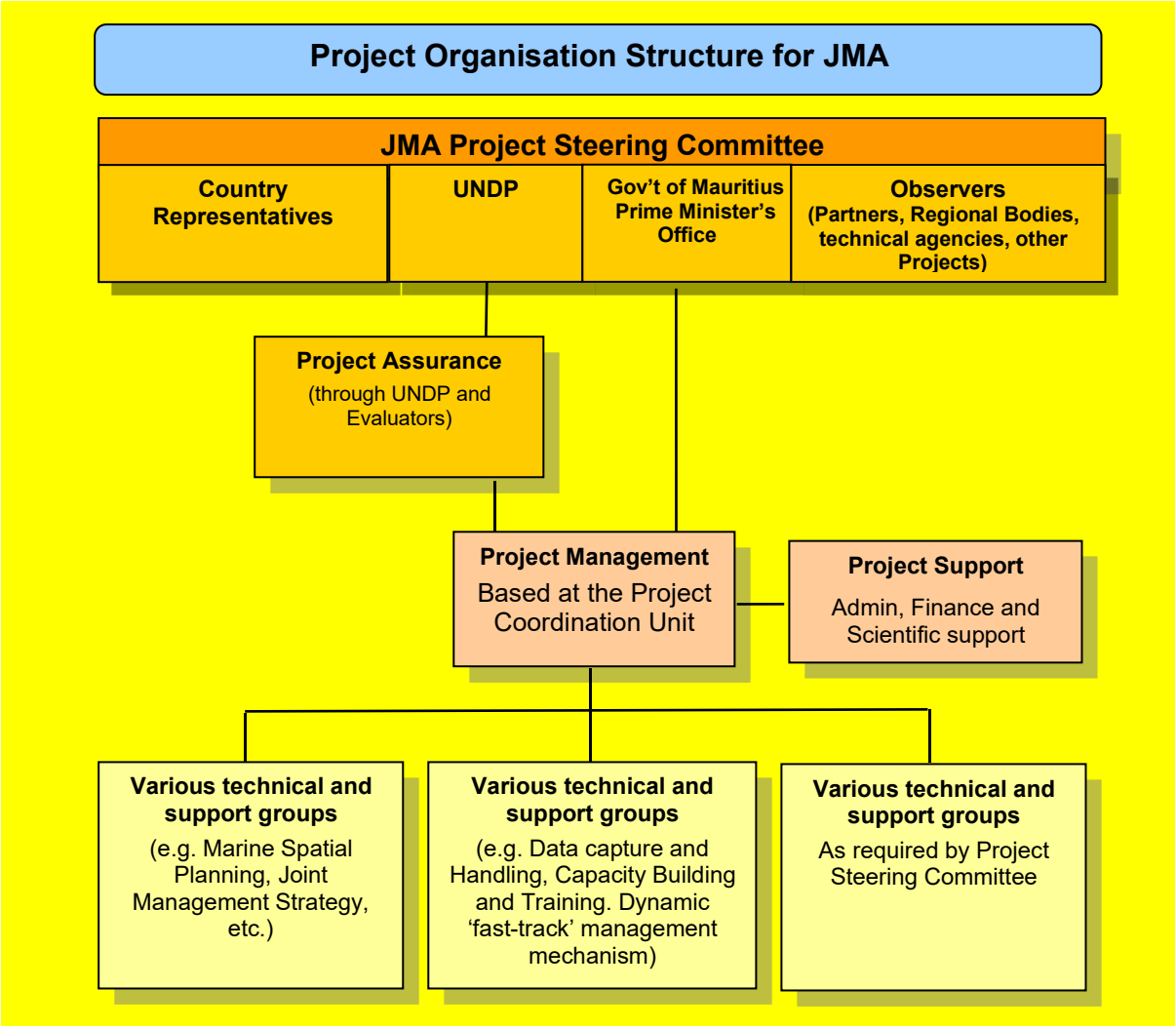


Figure 4: Project Management Structure for JMA

JMA demonstration project will be executed by the Government of Mauritius on behalf of the JMC through the Prime Minister's Office. The Government of Mauritius will be accountable to UNDP and the JMA PSC for the delivery of agreed outputs as per agreed project work plans, and for financial management, and ensuring cost-effectiveness. In addition to budget management and expenditures control, responsibilities will include hiring and administration of international and local personnel, procurement of goods and service, travel arrangements and other miscellaneous support as required. UNDP Mauritius Office may provide project execution support to the Nairobi Convention Secretariat upon requests on a cost recovery basis.

The Project implementation will be guided by a Project Steering Committee (PSC) comprised of the representatives of the participating countries, UNDP (as the Implementing Agency). Other donors and partners will be added to the PSC as appropriate. The PSC, as the highest decision-making body for the project, will provide policy and strategic guidance based upon

project progress assessments and related recommendations from the PCU and ensures the project-supported activities will be mainstreamed national policy dialogues as necessary. The PSC will review and approve annual project reviews and work-plans, technical documents, budgets and financial reports. The PSC will provide general strategic and implementation guidance to the PMU. It will meet annually, and make decisions by consensus. The specific rules and procedures of the PSC will be reviewed by stakeholders at the project inception meeting and decided by the PSC at its first meeting. A quarterly work-plan will also be adopted on an annual basis at the Inception meeting and at subsequent Project Steering Committee meetings.

5.2. Project Steering Committee

The SAPPHIRE Project Steering Committee would guide the activities of the SAPPHIRE Project. It would be comprised of Country representatives, GEF IA (UNDP), GEF EA (Nairobi Convention Secretariat), and other partners as appropriate. Who will represent each country will be discussed and decided at the first PSC meeting.

Intended Membership for the overall SAPPHIRE project

Permanent Members:

- Representatives of participating project countries (Comoros, Kenya, Madagascar Mauritius, Mozambique, Seychelles, Somalia, South Africa, and Tanzania).
- Representatives from UNDP
- Representative from the Nairobi Convention Secretariat
- Project Manager from the Project Coordination Unit (Secretary to Steering Committee)
- Project Manager for the JMA project

Potential Members/Observers (to be confirmed by Permanent members at the 1st PSC meeting):

- South West Indian Ocean Fisheries Commission/SWIOFish
- FAO (in relation to ABNJ and Deep Seas issues)
- WIOMSA
- AU, NEPAD and/or relevant Regional Economic Commissions
- IOC-UNESCO
- Indian Ocean Commission
- NGOs active in the region (as agreed by Permanent Members)
- Donor agencies providing co-financing (France, Norway)
- Technical agencies (e.g. NOAA)
- Project Managers from other closely related projects
- Other Co-financing partners
- Others, on a permanent or *ad hoc* basis, as invited by the Permanent Members

Roles and Responsibilities

- Act as the highest decision making body for the project.

- Overall supervision of project and its deliverables, work-plan and budget.
- Interact with UNDP, NC Secretariat and the PCU over all policy level decisions
- Report back to the focal institutions in their representative countries or to the IGO/regional body they represent
- Advise the PCU, UNDP and NC Secretariat on all matters relating to national/regional policy related to SAP implementation
- Ensure effective implementation of the SAP as highlighted in the project document
- Advise and agreed on appropriate administrative and institutional mechanisms for long-term SAP Implementation
- Identify and agree on further sustainability measures for SAP Implementation, particularly funding for long-term support

For the JMA demonstration project, a separate PSC will be constituted. PSC for the JMA demonstration project will comprise of JMC representatives from Mauritius and Seychelles and UNDP. At what level JMC will be represented at the JMA demonstration project PSC will be determined at the first JMA PSC meeting.

Intended Membership for the JMA demonstration project

Permanent Members:

- Representatives of Mauritius and Seychelles (JMC members)
- Representatives of UNDP (UNDP Mauritius/Seychelles and UNDP-GEF)
- The JMA Demonstration Project Manager (act as a Secretariat to the PSC)
- The SAPPHIRE Project Manager

Observer Members (to be agreed by the PSC Permanent Members for each PSC meeting):

- Advisory Representatives of IGOs and Regional Bodies, to include:
- Donor agencies or industry bodies providing co-financing
- Technical agencies (e.g. NOAA) as appropriate
- Project Managers from other closely related projects
- Others, on a permanent or *ad hoc* basis, as invited by the Permanent Members

Roles and Responsibilities

- Act as the highest decision making body for the UNDP JMA project.
- Overall supervision of project and its deliverables, work-plan and budget.
- Interact with UNDP and the PCU over all policy level decisions
- Report back to the focal institutions in their representative countries (e.g. joint Management Commission) or any other they represent and ensure the project activities are fully integrated into the countries' other programmes/initiatives as appropriate.
- Advise the PCU and UNDP on all matters relating to national/regional policy related to the JMA and to SAP implementation
- Ensure that activities within the JMA align (where appropriate) with effective implementation of the SAP as highlighted in the SAPPHIRE project document and the SAP document itself
- Advise and agreed on appropriate administrative and institutional mechanisms for the JMA which also align with long-term SAP Implementation
- Identify and agree on further sustainability measures for the JMA and the JMC which further reflect SAP Implementation, particularly funding for long-term support

5.3. Project Coordination Unit

The SAPPHIRE Project Coordination Unit will be hosted by the Ministry of Environment in Seychelles and the JMA PMU will be hosted by the Government of Mauritius. The SAPPHIRE PCU and the JMA PMU will provide the day-to-day management and coordination function for their respecitve project activities. The proposed staff complement to run the project is presented below:

Dedicated Project Staff based in Seychelles

- Project Coordinator
- Technical Officer
- Communications Specialist (bilingual)
- Finance Assistant
- Administrative Assistant (bilingual)
- IT Technician and Website Manager
- Driver

Dedicated Project Staff, based in Mauritius for the JMA demonstration project

- JMA Project Manager
- Operations and Administrative Assistant
- Finance and Adminstrative Assistant

Staff based in Nairobi Convention Secretariat in Nairobi, Kenya, jointly financed with the UNEP-GEF WIOSAP project

- Finance Officer
- Procurement Officer
- SAP coordination support officer (This may not be a full-time post.)

Roles and Responsibilities

- The day-to-day delivery of the Ecosystem Monitoring Programme
- The day-to-day delivery of the Capacity Building Programme
- Reporting to the SAP Regional Steering Committee on overall SAP Progress and SAP activity monitoring and evaluation
- Data and Information Handling and Sharing
- Assisting in the development of Briefing and Media documents
- Disseminate regular programme reporting documents and newsletters
- Assisting both the Scientific and Technical Advisory Panel and the SAP Regional Steering Committee in identifying funding opportunities for SAP activities and gaps and accessing those funds where possible
- Liaising with other LME-related projects in the region and bringing them into the Alliance for the SAP
- Providing a logistical service for all SAP groups in terms of travel arrangements and meetings
- Responding to ‘calls for action’ from both the Scientific and Technical Advisory Panel and the SAP Regional Steering Committee
- Ensuring effective coordination between Alliance members
- Have responsibility for Day-to-Day financial and administrative matters and report back to the STAP and the SAP Regional Steering Committee on such matters

N.B. Other staff will be hired through consultancy arrangements, as necessary.

Other Notes

Close links would be developed with the Nairobi Convention (through the Secretariat) in terms of their Protocols on Land Based Sources and Activities and Integrated Coastal Zone Management and with SWIOFC and any follow-up processes related to the SWIOF Project. This PCU would focus on providing a facilitating service to the delivery of activities from the SAPPHIRE Project and to support the main SAP Implementation bodies (The Scientific and Technical Advisory Panel and the SAP Regional Steering Committee).

5.4. Project Inception Meeting

When a large, 5-year project of this nature starts, it is important to make sure that all major stakeholders are clear on the way forward and the lines of communication. Equally, it is recognised that a Project Document is usually a “work in progress” and that time may elapse between its drafting and eventual implementation. As such, it is vital to have an Inception Meeting which reviews the Activities, budgets and arrangements noted into the Project Document to ensure they are still appropriate and will adequately address the transboundary management needs of the countries and ensure effective and ongoing SAP Implementation. A Project Inception Meeting and Workshop will be held at the beginning of the Project to fulfil this function. Some of the primary objectives of this Inception Meeting will be:

- To review and adopt an Inception Plan - IP and Procurement Plan - PP (to reflect and complement the Inception plan for the WIOLAB SAP Project). These plans will form the basis of a Letter of Agreement between UNDP and UNEP for collaboration between the two projects and to define the intention of amalgamating the SAPs ultimately under one Implementation process. The IP and PP will be developed by the Project Manager in close collaboration with the Nairobi Convention Secretariat
- Based on the project results framework and the relevant GEF Tracking Tool, finalize the first annual work plan and budget. Confirm the indicators, targets and their means of verification, and recheck assumptions and risks
- Approve the Terms of Reference associated with the project including those for National Focal Institutions (NFI) and their designated National Focal Point (NFP) representatives, as well as for Alternate NFIs
- Confirm the roles, functions, support services and complementary responsibilities of UNDP, UNEP, Nairobi Convention Secretariat, UN Country Offices and the RCU staff and project team (including any conflict resolution mechanisms)
- Provide a detailed overview of, and agree on, the reporting, monitoring and evaluation (M&E) requirements and responsibilities
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Steering Committee meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned.

6. MONITORING FRAMEWORK AND EVALUATION

The project will be monitored through the following M&E activities. The M&E budget is provided in the table below.

Project start:

A Project Inception Workshop will be held *within the first 2 months* of the PCU/PMU establishment with those with assigned roles in the project organisation structure. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan. It is anticipated that the Inception Workshop will also be the *de facto* first meeting of the Project Steering Committee.

The Inception Workshop will address a number of key issues including:

a) Assisting all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP, Nairobi Convention Secretariat and PCU staff *vis à vis* the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.

b) Based on the project results framework and the relevant GEF Tracking Tool, finalise the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.

c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.

d) Discuss financial reporting procedures and obligations

e) Plan and schedule Project Policy and Scientific level meetings, particularly the Regional Steering Committee meetings. Roles and responsibilities of all project organisation structures will be clarified and respective meetings and reporting requirements planned. The second Regional Steering Committee meeting should be held *within the first 12 months* following the inception workshop.

The Inception Workshop Report is a key reference document for the Project and will be prepared and shared with participants to clarify and formalise various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Based on the information recorded in ATLAS, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Where appropriate and pertinent, other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

- **Annual Project Review/Project Implementation Reports (APR/PIR)**: This key report is prepared to monitor progress made since project start and in particular for the previous

reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- Annual Work Programme and other expenditure reports
- Risk and adaptive management
- ATLAS Quarterly Performance Review
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

➢ **Annual Progress-Chasing Consultancy:**

The project might make a provision of an independent consultant with experience in International Waters projects, who will be engaged to provide an independent 3rd party view-point and facilitate the collation of project information into both internal progress-chasing reports and annual inputs into the UNDP APR/PIR and GEF IW Tracking Tools. This provision was made by the ASCLME project and considered as a good practice for a regional project of this scale. The consultant is expected to liaise with the Project Director, IA and EA, key project staff members and other stakeholders as necessary. This will be an internal 'evaluation' process to ensure the Project is following its Results Framework requirements and deliverables on an annual basis (i.e. it does not replace the requisite mid-term and final independent evaluations).

This Annual Review/Evaluation process (which will report back to the Project Steering Committee) will also assess the performance of the various regional structures associated with SAP implementation and provide advice and guidance to the regional SAP Policy Steering Committee through the SAPPHIRE PSC.

The Project Document anticipates a number of vital national-level activities. The achievements and outcomes of these structures will be regularly (annually) assessed and monitored by the Project Steering Committee through reports and further evaluated during the MTE and TE process.

Periodic Monitoring through site visits:

UNDP, NC Secretariat and the PCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Regional Steering Committee may also join these visits. A Field Visit Report/BTOR will be prepared by the PCU and will be circulated no less than one month after the visit to the project sites and circulated to Project Steering Committee members.

Mid-term of project cycle:

The project will undergo an independent Mid-Term Review (MTR) at the mid-point of project implementation, between the 2nd and 3rd PIR reporting. The Mid-Term Review will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation, terms of reference and final timing of the mid-term review will be decided after consultation between the parties to the project document. The Terms of

Reference for this Mid-term Review will be prepared by the UNDP (GEF IA). The management response and the evaluation will be uploaded to UNDP corporate systems.

The GEF IW Tracking Tools will also be completed prior to the mid-term review.

End of Project:
An independent Terminal Evaluation (TE) will take place three months prior to the final Project Steering Committee meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP (GEF IA).

The Terminal Evaluation (TE) should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarise the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate in as relevant and appropriate, scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus. In particular, the Project will participate within the GEF IW:LEARN network, (contributing a minimum of 1% of project budget to IW portfolio learning), the African LME Caucus and other appropriate regional and global initiatives in an effort to network between International Waters projects both regionally and globally, sharing lessons learned, and developing and deploying innovative ocean governance tools and methods. Other relevant networks will be harnessed where appropriate.

Communications and Visibility Requirements

The project will comply with UNDP's Branding Guidelines, which can be accessed at:
http://intra.undp.org/coa/ branding.shtml.

Specific guidelines on UNDP logo use can be accessed at:
http://intra.undp.org/branding/useOfLogo.html.

Amongst other requirements, these guidelines describe when and how the UNDP and the logos of donors to UNDP projects are used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at:
http://www.thegef.org/gef/GEF_logo

Full compliance will also be observed with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"), which can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf.

These guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. These Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements will be similarly applied.

6.1. M&E Work-Plan and Budget

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
Inception Workshop and Report	▪ Project Manager ▪ UNDP, UNDP GEF, NC Secretariat	Indicative cost: **$60,000**	Within first two months of project start up
Measurement of Means of Verification of project results.	▪ UNDP, NC Secretariat, and PC will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.	Through Annual Review of Project Delivery **($30,000)**	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	▪ Oversight by Project Coordinator ▪ Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	▪ Project Coordinator and team ▪ UNDP CO ▪ UNDP/GEF ▪ NC Secretariat	**$15,000** (contract out to Annual Project Reviewer)	Annually
Periodic status/ progress reports	▪ Project Coordinator and team	Also see above from Annual project Review	Quarterly
Mid-term Review	▪ Project Coordinator and team ▪ UNDP ▪ NC Secretariat ▪ External Consultants (i.e. evaluation team)	Indicative cost: **$60,000**	At the mid-point of project implementation.
Final Evaluation	▪ Project Coordinator and team, ▪ UNDP ▪ NC Secretariat ▪ External Consultants (i.e. evaluation team)	Indicative cost: **$60,000**	At least three months before the end of project implementation
Project Terminal Report	▪ Project Coordinator and team ▪ UNDP ▪ NC Secretariat ▪ local consultant	None	At least three months before the end of the project
Audit	▪ UNDP	**$25,000** (Indicative cost per	Yearly

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
	▪ NC Secretariat ▪ Project manager and team	year: $5,000 except for the 1st year)	
Visits to field sites	▪ UNDP ▪ NC Secretariat ▪ Government representatives	**$50,000** For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		**US$ 300,000** (+/- 5% of total budget)	

6.2. Audit

Audit will be conducted according to UNDP Financial Regulations and Rules.

7. LEGAL CONTEXT

"This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAAs for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof

This project will be implemented by the Nairobi Convention Secretariat in accordance with its financial regulations, rules, practices and procedures.

To ensure its responsibility for the safety and security of the UNDP personnel and property, UNDP shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to UNDP's security, and the full implementation of the security plan.

The UNDP shall undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document."

ANNEX 1: CHALLENGES AND OBJECTIVES FOR THE SUSTAINABILITY OF ECOSYSTEM QUALITY

Global Challenges for LMEs

Around the world, Large Marine Ecosystems are already showing signs of anthropogenic impacts including those from climate change. These include:

- Range shifts, with species moving both pole-wards and to deeper waters
- Changes in water column stratification and significant de-oxygenation
- Increased frequency of harmful algal blooms
- Shifts in species composition in phyto/zooplankton communities (mainly large to small individuals) and changes in diversity and species richness of fishes
- Species acting as 'invasives' creating negative ecosystem impacts
- Regions with naturally high environmental variability appear to be equally vulnerable to change and are not necessarily pre-adapted
- Changes in fisheries distribution and associated fleet structure and operations
- Management implications for harvesting of 'shifting biomass', especially across jurisdictional boundaries
- Synergistic effects such as increased frequency of extreme events and temperature changes may prevent biomass rebuilding after a reduction in fishing effort

Main Areas of Concern for the Western Indian Ocean LMEs

Within the Western Indian Ocean itself, the specific impacts and changes that are becoming obvious from recent studies and research have been identified by participating countries to the ASCLME and SWIOF Projects.

The joint ASCLME-SWIOFP Transboundary Diagnostic Analysis (TDA) identified four main areas of transboundary concern to the countries and people of the Western Indian Ocean (WIO) and identified the Ecosystem Quality Objectives which would be most appropriate and desirable as a WIO LME management target.

The four Main Areas of Concern are:

1. **Water Quality Degradation**
2. **Habitat and Community Modification**
3. **Declines in Living Marine Resources**
4. **Environmental Variability and Extreme Events**

Within each main area of concern, several specific issues were identified and analysed by the countries and prioritised in light of the need for regional action by countries. The intensive process of regional issue identification and prioritisation is presented in detail in the ASCLME-SWIOFP TDA. A high-level summary is presented below.

Ecosystem Quality Objectives were subsequently developed, to guide the implementation of the SAP. The proposed Ecosystem Quality Objectives and the actions that would be taken to achieve them are ultimately aiming to secure socioeconomic stability and community welfare in line with the Millennium Development Goals, the World Summit on Sustainable Development's Plan of Implementation, and the conclusions and objectives from the Rio Plus 20 Conference.

The proposed 5-year and 20-year Targets, along with the proposed Actions required to meet the Ecosystem Quality Objectives relative to each of the Main Areas of Concern are highlighted in Appendix 4 of the TDA [LINK]. These Targets and Actions were developed and discussed by the countries during the TDA development and finalisation stages (particularly at the ASCLME-

SWIOFP Joint TDA Development Meeting in Mauritius in July 2012) and further reviewed and agreed along with proposed indicators by the SAP Monitoring and Indicators Panel Meeting in Johannesburg in September 2012.

The Actions as identified from the TDA have been further consolidated and summarised for the future guidance of the SAP under each of the components listed in Chapter 4 'The Proposed Cooperative Actions to Implement the Strategic Action Programme'.

Water Quality Degradation

Water quality within the WIO is being degraded by a combination of factors associated with changes in the quality, quantity and timing of river flows, and due to contamination of ground, surface (coastal lakes and estuaries), coastal and marine waters. Impacts are from a variety of sources, ranging from catchment management and agricultural practices, to effluent and sewerage management (land-based sources) as well as marine-based sources such as shipping or fisheries activities that cause litter and oil pollution.

Specific issues of concern

- Alteration of natural river flow and changes in freshwater input and sediment load
- Degradation of ground and surface water quality
    - Microbiological contamination from land-based and marine sources
    - Solid wastes / marine debris from shipping and land-based-sources
    - Oil spills (drilling, exploitation, transport, processing, storage, shipping).

Proposed Ecosystem Quality Objectives

- Environmental flow requirements are taken into account for future development planning.
- Restore ground and surface water quality and prevent further degradation occurring in the future
- Reduce microbiological contamination in coastal waters.
- Reduce solid waste (marine debris) from shipping and land based sources in coastal water
- Develop the capacity to prevent and mitigate the effects of oil spills at regional and national level.

Habitat and Community Modification

The WIO hosts a huge diversity and complex array of different coastal and marine habitats including some of the world's critical habitats (seagrass beds, coral reefs and mangroves), that are important not only for the biodiversity that they support, but also for carbon sequestration, food production and natural shoreline protection. Coastal and marine habitats are under increasing pressure from the intensification of human activities in the coastal and marine environment. As coastal populations continue to increase, and as people move to the coast to seek to improve their livelihoods, these pressures will continue to grow, causing further risk to food security, income and livelihoods, protection of coastlines, tourism, recreation and cultural values.

We are only just starting to understand the important role of the eddy systems around the Mozambique Channel and around Madagascar and South Africa on productivity and fisheries within those areas. Changes in the drivers of these eddy systems (primarily climate and weather-related current movements) could alter the levels of productivity throughout this region with unknown consequences to dependent human communities.

Inadequately or completely unplanned coastal developments, destructive fishing techniques, and the expansion of the extractive industries will continue to contribute towards the degradation, disturbance, fragmentation, or complete destruction of habitats. The loss of these

natural habitats will affect the flora and fauna that depend on them for different life stages as well as disrupting the socioeconomic benefits obtained from their goods and services and functions.

The joint TDA process has identified that Indian Ocean is experiencing some of the strongest warming globally (an increase of up to 1° C since 1950) and the WIO region is generally warming faster relative to the global mean (i.e. it is a recognised global 'hotspot' of climate change). Sea-level rise around some of the vulnerable islands in the Indian Ocean is seen to have a trend of 10 mm per year, higher than the average global trend of 3.5 mm.

Specific issues of concern

- Shoreline change, due to modification, land reclamation and coastal erosion
    - Disturbance, damage and loss of upland / watershed habitats (>10 m elevation)
    - Disturbance, damage and loss of coastal vegetation and flood plain habitats (to 10 m elevation)
    - Disturbance, damage and loss of mangrove habitats
    - Disturbance, damage and loss of coral reef habitats
    - Disturbance, damage and loss of seagrass habitats
- Disturbance, damage and degradation of pelagic habitats (nearshore <30 m, 30-200 m an oceanic > 200 m depth)
- Introduction of exotic non-native species, invasives and nuisance species

Proposed Ecosystem Quality Objectives

- Effective mitigation and management of shoreline change.
- Watershed ecosystems protected, rehabilitated, ecosystem function restored, and sustainably managed
- Mangrove habitats sustainably managed and their health and ecosystem services protected
- Corals reef health and ecosystem services protected and sustainably managed
- Status and ecosystem services of coastal habitats protected and effectively managed.
- Seagrass habitats sustainably managed and the health and ecosystem services protected
- Health and ecosystem services of deep water habitats protected and effectively managed
- Eliminate or minimize the risk of the introduction or spread of exotic non-native species, invasive and nuisance species.

Declines in Living Marine Resources

Globally, it is now well established that many marine wild capture fisheries are overexploited. The methods used to extract resources may impact on other non-target species, and contribute towards the loss or disturbance of natural habitats, further threatening the long-term sustainability of otherwise healthy ecosystems and of other species that are dependent upon these habitats for feeding, breeding or other critical life processes. Populations of many species, including the larger, more charismatic marine mammals, seabirds, marine turtles, as well as the more rare endemic species, are critically endangered or vulnerable. Excessive by-catch and discards have been identified as a problem. Fisheries data capture and consequent fisheries management have historically tended to underestimate small-scale fisheries, which now appear to be of significant importance in terms of size, food security, sustainability of stocks, national/regional economic value. It is widely recognised that fisheries and their management cannot operate in isolation from their surrounding ecosystems and associated biodiversity. Understanding the relationship between fishing and the environment, such as by-catch, removal of top predators, impact on associated biota and the incidental mortality of marine mammals, turtles and seabirds is critical and all these factors are required to be incorporated in an Ecosystem Approach to Fisheries. Species ranges and distributions are changing (expanding/contracting) as a result of sea temperatures, acidification, etc. (including

commercial species). Changes in the population balance of the following groups were recognised to be of particular concern:

- sharks and rays
- large pelagics
- small pelagics
- reef and demersal fish
- sea cucumbers
- prawns and shrimp
- lobster
- focal non-target species, such as cetaceans, marine mammals and seabirds

Proposed Ecosystem Quality Objectives

- Restoring the populations of sharks and rays to sustainable levels
- Reduce fishing effort and capacity to match MSY/ESY or any other appropriate management reference points that reflect sustainable well-being in key shark and ray stocks
- Monitor populations of large pelagic fish and harvest rates to maintain sustainability or, where necessary, to implement management measures aiming at restoring populations to sustainable levels
- Monitor populations of small pelagic fish and harvest rates to maintain sustainability or, where necessary, to implement management measures aiming at restoring populations to sustainable levels
- Rebuilding and restoration of the populations of reef and demersal fish species to sustainable levels
- Rebuilding and restoration of the populations of sea cucumber species to sustainable levels
- Monitor populations of prawns/shrimps and harvest rates to maintain sustainability or, where necessary, to implement management measures aiming at restoring populations to sustainable levels
- Rebuilding and restoration of the populations of lobster species to sustainable levels
- Maximise the value of by-catch (where reduction is not possible) and eliminate discards
- Reduce habitat damage from destructive gear and methods

Environmental variability and extreme events

Shifts in seasonal rainfall patterns in terms of the distribution and volume of precipitation have already been reported by all countries within the WIO region, with associated impacts upon river flows and sediments into nearshore marine habitats. Heavy rainfall results in increased soil erosion and sediment input into coastal waters. Climatic extremes such as floods and droughts may become more common, and the frequency of intense cyclones may increase as a result of climate change. Sea level change, pH change (ocean acidification) and long-term increases in ocean temperature have already been recorded, and these trends are likely to increase with major impacts on coastlines, nearshore habitats, marine species and the people of the region. Rapid changes in the variability of El Niño Southern Oscillation and the Indian Ocean Dipole events could severely disrupt production systems and livelihoods due to more frequent and extreme floods and droughts with threats to fisheries, aquaculture, distribution of ecosystem elements and consequent impacts on socioeconomics and human well-being

Specific issues of concern

- Climate hazards and extreme weather events
- Sea level change
- Ocean acidification
- Changes in seawater temperatures
- Changes to hydrodynamics and ocean circulation
- Changes in productivity (shifts in primary and secondary production)
- Geohazards (tsunamis, volcanic eruptions, earthquakes)

Environmental variability and extreme events cause or exacerbate several of the issues identified in themes 1-3. Due to their long-term nature, no EQOs are identified in the TDA/SAP, but understanding their potential trends and effects forms an important part of the SAP under the Long Term Monitoring and Indicators component. Actions related to mitigation and adaptation are detailed under themes 1-3.

Security and access as an overarching concern

In identifying the main areas of transboundary concern, the TDA process drew attention to the issues of security and accessibility that are a present threat in the region, primarily as a result of piracy activities. Such activities have prevented the ASCLME and SWIOF Projects from undertaking a comprehensive foundational survey of the region (in particular the East African Coastal and Somali Currents) and continue to preclude any attempts at a long-term monitoring programme within the northern areas of the management boundary.

Various alternative data capture mechanisms have been and are being explored. These include the use of autonomous underwater vehicles or gliders, wave-riders, self-propelled or expendable instrumentation (e.g. expendable bathythermographs, Argo floats and satellite drifters). Acquisition of higher resolution satellite imagery (altimetry, ocean colour, etc.) is another option that may assist in filling in the data gaps for this northern area. The use of ships and platforms of opportunity for sampling or equipment deployment is a further potential mechanism that could resolve some of the gaps.

This Strategic Action Programme recognises the importance and urgency for capturing data in the high-risk areas in order to revise and strengthen the TDA and the long-term ecosystem monitoring process and would give priority to such data capture and analysis where possible and feasible.

ANNEX 2: POTENTIAL LEGISLATIVE, POLICY AND INSTITUTIONAL/ ADMINISTRATIVE IMPROVEMENTS CONSIDERED NECESSARY IN ORDER TO SUPPORT SUSTAINABLE ECOSYSTEM BASED MANAGEMENT WITHIN THE WESTERN INDIAN OCEAN LMES THROUGH IMPLEMENTATION OF THE SAP

Legislative Reforms	Political/Policy Reforms	Institutional/Administrative Reforms
National legislation will include regional agreement on standards/levels for microbial contaminants, alien/non-native and exotic species, solid and liquid wastes, oil and other hazardous substances in line with international Conventions and Protocols (through collaboration with IMO and with Nairobi Convention as appropriate and required)	National economic development plans are required to take into consideration economic evaluation of ecosystem goods and services and the cost-benefits of protecting and managing them	National institute(s) confirmed or nominated by countries as having (or as being given) formal responsibility for ecosystem indicator monitoring, water quality monitoring, monitoring of contaminants and pollutants (as well as monitoring of socio-economic welfare of dependent communities) in line with ecosystem indicators agreed and adopted through regional SAP Implementation process (and conforming to and feeding information into global Assessments such as TWAP, AoA, etc.)
National legislation will capture monitoring and compliance measures and penalties to enforce standards and levels as above	Marine Spatial Planning is adopted as a prerequisite for national ocean policy and ICM legislation and management development as a policy requirement	National monitoring control surveillance and enforcement bodies identified by each country (created where necessary) for enforcement of legislation on pollutants
National legislation will be amended to include regional agreement on monitoring and control of coastal development and shoreline modification/impacts (e.g. coastal set-back planning laws) and adopted indicators of welfare and impacts (in close collaboration with and in support of the Nairobi Convention)	Appropriate regional scientific body established as a coordinating institution for peer review of trends in changes or threats in the LMEs and for development of adaptive management guidelines and policy advise/options to address such changes or threats	National institute established or strengthened to monitor impacts on vulnerable critical habitats as part of national legislation protecting shoreline and coastal species and habitats (primarily through support to and cooperation with the Nairobi Convention)
National legislation will capture emergency response responsibilities and special powers (as necessary) in event of an environmental disaster or acute pollution event with linkages to a regional response	Inclusion of Artisanal fisheries data and status into overall fisheries national management plans and strategies	National institution identified by countries as responsible for coordinating 5-yearly reviews of MEDAs and developing policy briefs and management guidelines resulting from conclusions of these reviews and any

Legislative Reforms	Political/Policy Reforms	Institutional/Administrative Reforms
plan and centre (in collaboration with IMO and Nairobi Convention		identified changes in ecosystem welfare
National legislation will be strengthened to require effective levels of waste treatment in all coastal communities (through assistance and support to the Nairobi Convention	Main resources-user sectors (such as tourism, mining, energy, shipping, fisheries, etc.) to develop 'Best Practice' operational protocols (based on regional guidelines) in line with the ecosystem approach	National Intersectoral Committees for managing SAP Implementation activities and issues established or strengthened/realigned and with representation on the Regional SAP Implementation Policy Committee
More specific and effective EIA requirements will be adopted in relation to activities potentially impacting vulnerable habitats and species (including deep-water habitats and seamounts) adopted based on regional standards	Countries to negotiate an agreement (as possible) with non-country resource users and stakeholders over more effective management of high seas resources in bordering ABNJ that fall within the LME management boundary	National bodies identified to capture data on small-scale, artisanal fisheries and to develop management plans for same.
All countries to adopt by-catch mitigation and discard reduction measures as well as safety of fisher-folk into national fisheries legislation (In collaboration with SWIOFC)	Ecosystem management approach enshrined in all appropriate national legislation as a national policy	National institute identified for coordination and facilitation of contingency planning and emergency response to acute threat from contaminants, hazardous chemicals (including oil and gas) invasive species and unlicensed waste discharges
National legislation amended to include requirements of various conventions and protocols related to port facilities for handling ship-related wastes and pollutants (including existing ballast water commitments and any new hull-fouling global agreements) (in close collaboration and cooperation with IMO and IOI)	National education and awareness campaigns adopted and rolled out on watershed, coastal and marine ecosystem value and benefits required as a matter of national policy	Regional emergency response centre established and sustainable to support countries in the event of an emergency pollution event (with appropriate agreements in place for fast response, equipment movements, personnel movements, use of chemicals and dispersants, etc.)

ANNEX 3: Regional and Bilateral Projects and Programmes specifically or partially covering marine and coastal areas in the western Indian Ocean region

ANNEX 3: REGIONAL AND BILATERAL PROJECTS AND PROGRAMMES SPECIFICALLY OR PARTIALLY COVERING MARINE AND COASTAL AREAS IN THE WESTERN INDIAN OCEAN REGION

Marine and Coastal Programmes		Supporting Institutions	CB[8]	
ACCESS	Applied Centre for Climate and Earth System Science	UCT, Princeton Univ., Third World Academy of Science (Trieste)	yes	**www.access.ac.za**
ACMA	African Coastal and Marine Atlas	FUST/IOC-UNESCO	yes	**www.africanmarineatlas.net**
AMESD	African Monitoring of the Environment for Sustainable Development (2007-2012)	EU/COI/IGAD/AU	yes	**www.amesd.org**
Coast-Map-IO	Improving Emergency Response to Ocean-based Extreme Events through Coastal Mapping Capacity Building in the Indian Ocean (completed)	IOC-UNESCO	yes	**www.ioc-cd.org**
CORDIO	Coastal Oceans Research and Development in the Indian Ocean	IUCN, WIOMSA, World Bank, FAO		**www.cordionet.org**
DBCP	Data Buoy Cooperation Panel	JCOMM (WMO, IOC/UNESCO)	yes	**www.jcommops.org/dbcp**
ISLANDS (ISIDSMS)	Implementing the SIDS Mauritius Strategy (2011-2013)	COI/EU		
MESA	Monitoring for Environment and Security in Africa (2013-2017)	EU/AUC; RECs & RICs	yes	
NC-CHM	Nairobi Convention Clearing House Mechanism	UNEP	yes	**www.unep.org**
ReCoMaP	Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries (2007-2011)	COI/EU	yes	**www.progeco-oi.org**
WIO-LaB	Addressing land-based activities in the Western Indian Ocean (2006-2009)	GEF/UNEP		**www.wiolab.org**
	Important Areas / Marine Protected Areas			
FAO	Process for the identification of	FAO		

8 (CB = Capacity building component)

ANNEX 3: Regional and Bilateral Projects and Programmes specifically or partially covering marine and coastal areas in the western Indian Ocean region

Marine and Coastal Programmes		Supporting Institutions	CB[8]	
	Vulnerable Marine Ecosystems (VMEs)			
CBD	Process for the identification of EBSAs			
RAMP-COI	Marine Protected Areas of the Indian Ocean Commission	WWF/COI		**www.ramp-oi.org**
TRANSMAP	Transboundary networks of marine protected areas in East Africa	EU		**www.transmap.fc.pt**
WWF-EAME	East African Marine Ecoregion	WWF		
C3	Community Centred Conservation			
GEF/SEY	GEF Project supporting expansion of Protected Areas in the Seychelles			
	Pollution			
PUMPSEA	Peri-urban mangrove forests as filters of domestic sewage in East Africa (completed)	EU		**www.pumpsea.icat.fc.pt**
WIO Marine Highway	Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project (completed)	GEF/WB/COI		**www.iwlearn.net**
	Large Marine Ecosystems (Africa)			
ASCLME	Agulhas and Somali Current Large Marine Ecosystems Project	GEF/UNDP	yes	**www.asclme.org**
BCLME	Benguela Current Large Marine Ecosystem Project		yes	**www.bclme.org**
BCC	Benguela Current Commission			
CCLME	Canary Current Large Marine Ecosystem Project			
GCLME	Guinea Current Large Marine Ecosystem	GEF/UNDP		**www.gclme.org**
SPMLME	Strategic Partnership for the Mediterranean Large marine Ecosystem	GEF/UNEP		**www.medsp.org**
SWIOFP	South West Indian Ocean Fisheries Project	GEF/WB	yes	**www.swiofp.org**
WIO-Lab	Addressing Land Based Sources of Pollution in the WIO	GEF/UNEP	yes	
	Remote Sensing Servers and Centres			
GMIS	Global Marine Information System (specific focus on Africa, Caribbean and Pacific countries)	EU-JRC	yes	**www.amis.jrc.ec.europa.eu**
NEODAAS	NERC Earth Observation Data	NERC		**www.neodaas.ac.uk**

ANNEX 3: Regional and Bilateral Projects and Programmes specifically or partially covering marine and coastal areas in the western Indian Ocean region

Marine and Coastal Programmes		Supporting Institutions	CB[8]	
	Acquisition and Analysis Service			
RECTAS	Regional Centre for training in Aerospace Surveys	UNECA	yes	**www.rectas.org**
RSSMS	Remote Sensing Server for Marine Sciences in Africa	DST-SA	yes	**www.afro-sea.org.za**
SAEON	South African Environmental Observation Network	NRF-SA		**www.saeon.ac.za**
UCT Ma-Re	University of Cape Town Marine Research Institute	UCT	yes	**http://ma-re.uct.ac.za/**
	In-situ Observation Networks			
Argo Project	Argo Project	NOAA, ASCLME…		**www.argo.net**
CFOO	Centre for in-situ observational oceanography for southern Africa and the WIO region.	UCT, ASCLME, DEA, BCRE, NRF-SA, CSIR		**www.cfoo.co.za**
ChloroGIN - Africa	Chlorophyll Global Integrated Network in Africa	GEO	yes	**www.chlorogin.org**
CORDIO	CORDIO Coral bleaching forecast/early warning system	WIOMSA, IUCN		**www.cordio.org**
DevCoCast	GEONETCast for developing countries	EU	yes	**www.devcocast.eu**
EAMNet	Europe – Africa Marine EO Network (2010-2013)	EU	yes	**www.eamnet.eu**
Global Drifter Programme	South African Environmental Observation Network	SA- DST		
GLOSS	African sea level network	FUST/IOC-UNESCO		**www.gloss-sealevel.org** **www.sealevelstation.net**
GOOS	Global Ocean Observing System (GOOS Africa, IO GOOS and subsidiaries)			
IOC-CD-WIO	Capacity Development Programme for the Western Indian Ocean	IOC-UNESCO	yes	**www.ioc-cd.org**
LOCO	Long-term Ocean Climate Observations	NIOZ, KNMI, Utrecht University, ASCLME		
Ocean Teacher	A training resource for Oceanography and Marine Meteorology	IOC-UNESCO	yes	**www.oceanteacher.org**
OceanSAfrica	Integrated network for ocean observation	CSIR, UCT,		

ANNEX 3: Regional and Bilateral Projects and Programmes specifically or partially covering marine and coastal areas in the western Indian Ocean region

Marine and Coastal Programmes		Supporting Institutions	CB[8]	
	and modelling in southern Africa	DEA, SAEON		
OceanSITES	Network of global in-situ reference stations (surface to deep-water data collection)			**www.oceansites.org**
ODINAFRICA	Global sea level observing system in Africa	IOC-UNESCO	yes	**www.odinafrica.org**
PMAR	Piracy, Maritime Awareness and Risks	EC-JRC	yes	**https://bluehub.jrc.ec.europa.eu/**
RAMA	Research moored Array for African-Asian-Australian Monsoon Analysis and prediction	NOAA, ASCLME		
SIMORC	System of Industry Metocean data for the offshore and Research Communities	OGP		**www.simorc.org**
NMCi	Northern Mozambique Channel initiative (NMCi)	WWF, CORDIO, CI, Birdlife, IUCN	yes	**www.cordioea.net/nmc**

ANNEX 4: RISK LOG[9]

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	Enter a brief description of the risk *(In Atlas, use the Description field.* ***Note: This field cannot be modified after first data entry)***	When was the risk first identified *(In Atlas, select date. Note: date cannot be modified after initial entry)*	Environmental Financial Operational Organizational Political Regulatory Strategic Other Subcategories for each risk type should be consulted to understand each risk type (see Deliverable Description for more information) *(In Atlas, select from list)*	Describe the potential effect on the project if this risk were to occur Enter probability on a scale from 1 (low) to 5 (high) P = Enter impact on a scale from 1 (low) to 5 (high) I = *(in Atlas, use the Management Response box. Check "critical" if the impact and probability are high)*	What actions have been taken/will be taken to counter this risk *(in Atlas, use the Management Response box. This field can be modified at any time. Create separate boxes as necessary using "+", for instance to record updates at different times)*	Who has been appointed to keep an eye on this risk *(in Atlas, use the Management Response box)*	Who submitted the risk *(In Atlas, automatically recorded)*	When was the status of the risk last checked *(In Atlas, automatically recorded)*	e.g. dead, reducing, increasing, no change *(in Atlas, use the Management Response box)*
1	Security/Safety situation in the region or one or more countries deteriorates.	10 Dec 2013	Environmental	Project Activities for the most part take place in countries or within their territorial waters, or	Past events suggest a fair probability of such risks impacting on project activities. For this reason, project activities are	UNDP, PSC, Project Manager, UNDSS			

9 (as required by UNDP)

ANNEX 4: Risk Log

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				occasionally, on the High Seas. In each case, the safety and security of the Project staff, consultants and other people involved in implementing the Project in whatever capacity is paramount. Civil unrest, war, terrorism, piracy and crime all have the potential to negatively impact the Project within the region. P= 3 I=3-5	planned to carefully assess the possibility of working in "high risk" areas and appropriate safeguards and procedures for monitoring, assessing, reacting to and mitigating those risks are in place (both within the Project and within the UNDSS system). Areas which are judged to have an unacceptable risk will be avoided. Where this impacts project activities during implementation, alternative activities will be explored and approved by the relevant project governance structures as part of adaptive project management.				
2	Weather negatively	10 Dec 2013	Environmental	Some activities envisaged within	As far as possible, activities will be	Project Manager;			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	impacts cruises and/or other project activities.			the Project Document may be adversely affected by severe weather (notably shoreline fieldwork and/or ship-based activities). P = 3 I = 3	planned to take place during seasons where adverse weather conditions are unlikely. If possible, work likely to be affected will be rescheduled if unseasonal weather is forecast.	Research teams			
3	Available funds are insufficient to the scale of required interventions.	10 Dec 2013	Financial	LME scale projects require significant investments of time, personnel and financial resources. If not carefully managed and rigorously prioritised, it is possible that the required improvements in environmental and social well-being may not be realised. P = 1 I = 3-5	The Project Document carefully assesses the required interventions and a rigorous budget has been planned to match them, mitigating this risk. In the unlikely event of unforeseen financial disruptions (unfavourable exchange rates, insufficient inputs of co-financing) adaptive project management will be undertaken to mitigate the negative impacts, in full consultation with	RSC; Project Manager			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
					Project Management Structures (RSC, UNDP, NC Secretariat GEFSEC).				
4	Co-financing commitments are not met fully	10 Dec 2013	Financial	The activities described in the project document require significant co-financing (both in cash and in kind) from many organisations. Whilst firm commitments to co-financing have been sought, it is possible (through unforeseen circumstances) that one or more co-financing partners may have to reduce the level of support initially foreseen. P=2 I=2-4	Co-financing commitments have been sought in line with realistic amounts of support envisaged to the Project by each co-financing partner. Adaptive Project Management would also seek to remedy Any potential shortfall through other mechanisms, such as increased contributions from existing co-financing partners, or the identification of new funding partners. In the event that further adequate support cannot be realised, adjustments to the Project activities will have to be made, in consultation with Project Management Structures (RSC, UNDP, NC Secretariat	Project Manager; UNDP, NC Secretariat			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
					GEFSEC).				
5	One or more countries (or one or more designated national institutions) are not prepared to fully commit to activities in the Project Document and in ultimately implementing joint actions to achieve desired environmental and social outcomes.	10 Dec 2013	Political	The implementation of an International Waters project and the realisation of the vision of a Strategic Action Programme depend heavily on full cooperation of and between regional Governments. P=1 I=2-5	The countries have called for the creation of a Strategic Action Programme and supportive projects (not only WIO-SAPPHIRE). This strongly indicates significant political will to implement such projects and participate fully in their activities to achieve the desired outcomes. Signature of the Project Document further indicates their ongoing commitment. Both UNDP and the Project Manager will be able to leverage these demonstrated commitments along with regional and international political pressure to ensure all countries are adequately engaged in the process.	UNDP; Project Manager			
6	One or more communities will be unwilling	10 Dec 2013	Political	Several significant community-level	It is anticipated that communities with whom project	Project Manager; Relevant			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	to participate fully in community-level activities			demonstration activities are envisaged within the project. They will require significant buy-in from local community members to function. P=2 I=3	partners have significant experience and understanding of will be selected for these activities; working with communities that have already demonstrated a strong will to participate in Project activities of this nature will mitigate this risk. Furthermore, best practice in engaging with communities will be followed, particularly by ensuring open and frank communications of the anticipated activities and likely outcome and associated timeframes. Several communities will be involved; if only a single one objects to the activities, this can either be a "lesson learned", or if this occurs early in the Project, a different	Consultants			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
					community may be selected. In all cases, Project Management Structures, particularly at national level, will be intimately involved in such national-level activities, with strong oversight from the Project Management Unit.				
7	Sister projects do not adequately cooperate in the establishment of a regional programmatic approach to SAP implementation	10 Dec 2013	Organisational	GEF interventions in the region for SAP implementation are split over at least 3 UN Agencies and across 2 SAPs, and will have at least 3 separate Project Management Units. This creates a potential for disjointed implementation and potentially a lack of cooperation or a cohesive ecosystem-level approach	Adaptive management will seek to align SAPPHIRE with the other GEF projects (and other regional projects) to ensure the visions in the SAP are achieved. In particular, careful attention will be paid to the developments of the WIO-SAP project and the development of a SAP implementation phase subsequent to the SWIOFP project, ensuring that the full range of interventions required are	RSC; UNDP; NC Secretariat, Project Manager			

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
				throughout the region. Other past, present (and potentially future) GEF-funded projects in the region have potential overlaps in activities. P=2 I=2-4	adequately prioritised and addressed across all three project without duplication of effort and in a spirit of open and mutual cooperation and the making full use of synergies between the projects and the comparative advantages of their respective implementing agencies. Regular meetings will be scheduled between the Project Managers of the GEF-funded projects, if not their entire PMU and/or Project Boards to ensure such potential challenges and opportunities are not left unaddressed. A careful assessment of regional (GEF and other) projects will be undertaken to				

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
					explore and eliminate overlaps and identify critical gaps in activities. As mandated in by its Project Document, the ASCLME (and SWIOFP) SAP is fully inclusive of the findings of the earlier WIO-LaB SAP and can be considered to represent the entire suite of holistic, ecosystem-level SAP interventions required in the region.				
8	Adequate (human) capacity to address the challenges identified in the SAP and Project Document cannot be found.	10 Dec 2013	Organizational	Project Activities and the long-term ecosystem and social health improvements envisioned in the SAP require significant human capacity at many levels of society, including in social and scientific research, policy, management and legal areas. Wherever	Given the experience in the ASCLME Project, significant regional capacity already exists to meet many of the challenges noted in the SAP. Where shortcomings exist, a rigorous programme of capacity building and training is envisaged within the Project Document.	RSC, NC Secretariat, Project Manager			

ANNEX 4: Risk Log

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				possible, regional expertise will be used. P=1 I=4	It is also expected that where international expertise is utilised, such expertise will result in the training of regional personnel in such activities as part of their consultancy or project activity, either through formal training or informal "experiential" learning. If regional expertise is unavailable, international consultants would be available to "fill the gap"; this risk is not likely to be a significant challenge to mitigate.				
9	All stakeholders that should be involved in the project can be reached and will participate to the extent required.	10 Dec 2013	Strategic	LME and SAP Implementation Projects by their nature require broad participation by many stakeholders across all sectors	The existing relationships built during the prior phase (ASCLME) of the SAPPHIRE project will help to foster strong relationships with stakeholders,	RSC, Project Manager, relevant Staff and Consultants			

ANNEX 4: Risk Log

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				and levels of society. This can represent a significant challenge, particularly where projects are expected to directly interface with all stakeholder groups across very large and disparate (language/culture) areas. The probability of at least some stakeholders not being adequately involved is fair; the impact of this depends entirely on how critical their participation is to Project activities. P=3 I=1-5	particularly at the technical/scientific and policy/management levels. The Stakeholder Analysis has identified the most significant stakeholders with whom the Project must partner if it is to achieve success; this "baseline" will inform communication and collaboration efforts and monitoring of progress. Adaptive project management will continuously monitor the extent of stakeholder involvement and undertake feasible corrective actions to address groups with whom interactions are not satisfactory.				
10	Project Management Unit can handle	10 Dec 2013	Operational	This complex and broad project has significant scope	Given the scope and size of the project, skilled, dedicated	RSC, UNDP, NC Secretariat,			

ANNEX 4: Risk Log

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	the volume of work envisaged.			to overwhelm a small PMU, particularly if the activities envisioned in the Project Document are not carefully prioritised, or if the RSC makes significant additional demands on the Project for additional deliverables beyond those anticipated within the Project Document. P=1 I=2-4	and regionally experienced personnel must be appointed to the PMU. Adaptive Project Management will regularly assess the work-plan (and associated budget) to ensure that the outcomes identified in the Project Document can be met, specifically with a view to achieving demonstrable impacts on ecosystem (and social) health [EQOs] as envisioned within the SAP. The Project Manager must be allowed to decline additional requests (not defined in the ProDoc) for assistance from countries through the RSC where they cannot be met by the	Project Manager.			

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					available resources (financial, human or infrastructural). Careful prioritisation (by the RSC in consultation with the PMU under the guidance of the ProDoc and SAP) of the size, scope and location of activities must be undertaken, not only within the Project Document, but also by the Inception Workshop and in ongoing adaptive management processes to ensure that delivery is not only satisfactory, but adequately affects the EQOs and SAP vision.				
11	Legal and Regulatory frameworks can adequately support Project Activities and SAP Implementation.	10 Dec 2013	Regulatory	International, regional and national legislation and regulatory frameworks are needed to define, monitor and enforce EQOs and other targets	Several Project Activities will examine the legal and regulatory frameworks in place, and seek to actively ensure that the countries accede to / ratify comparable international	Project Countries; UNDP; IGOs; Project Manager			

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				envisioned in the ProDoc and SAP. Not all countries necessarily have adequate legal frameworks in place to meet international commitment, nor have they all necessarily acceded to/ratified the same international commitments. Given this situation, the probability of this risk is fair; the impact is less certain, depending on the extent of the legal/regulatory deficiency and its knock-on effects to SAP implementation and/or Project activities. P=3	regulatory instruments, treaties, regulation, laws and policies and match these with complementary national legislative / legal frameworks, as necessary. Where required, novel instruments may be negotiated to ensure support of ongoing SAP implementation activities and/or other required interventions; and/or to define the required levels for various EQOs, or other environmental and social health targets under appropriate bodies.				

ANNEX 4: Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
				I=1-5					

ANNEX 5: LIST OF SUPPORTING DOCUMENTS

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2. Crochelet, E. 2012. Larvae dispersal modelling in the Western Indian Ocean. A specialist report. Prepared for the Agulhas and Somali Current Large Marine Ecosystems Project (supported by UNDP with GEF grant financing). Unpublished report.
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ANNEX 5: List of Supporting Documents

ASCLME-SWIOFP Transboundary Diagnostic Analysis

63. ASCLME-SWIOFP Transboundary Diagnostic Analysis Volume 1
64. ASCLME-SWIOFP Transboundary Diagnostic Analysis Volume 2

WIO Strategic Action Programme

Strategic Action Programme Document

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