Regional Policy and Governance Assessment for the Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Region

Final Draft 2011

Table of Contents

****

Regional Policy and Governance Assessment for the Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Region

Executive Summary

Part A of this report examines the full range of regional environmental and resource management organizations in the Western Indian Ocean, outlining their competences and main areas of operation. It then looks at the range of environmental and resource management projects which are being, or have recently been, funded in the region, assessing their key objectives and outputs. It also looks at the range of political and economic agreements in the Southern Africa and Western Indian Ocean regions and their degrees of legal competence in relation to issues which would be necessary components of an ecosystem approach natural resource management in the Agulhas and Somali Currents LMEs. The report demonstrates the range of collaboration that already exists within the region through the very large number and variety of international treaty arrangements, externally funded development projects and political organizations. Not surprisingly, the national studies were not able to identify additional important ecosystem linkages – as this section indicates the regional collaborative agenda is already very full.

Part B reviews the current situation regarding international l and international agreements which are of relevance to the management and governance of 'areas beyond national jurisdiction (ABNJ). It starts with a brief review of the issues of management of ABNJ globally and then looks at the situation in the Indian Ocean. It outlines the key international organizations at a global level with necessary competences and then also at the regional situation, It also highlights the development at global level of two highly relevant concepts for ABNJ conservation – the Vulnerable Marine Ecosystem (VME) classification developed by the UN and FAO and the Ecologically and Biologically Significant Area (EBSA) developed by the Convention on Biological Diversity. Both represent efforts by the international community to address ecosystem threats in ABNJ.

Part C. The report concludes with an assessment of possible scenarios for an LME-based approach to a regional governance strategy.

Regional Policy and Governance Assessment for the Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Region

Final Draft 2011

Objectives of this Regional Assessment Report

In accordance with the terms of Reference (attached as Appendix 1) the objectives of this Assessment Report are to

Undertake a policy and governance assessment for the ASCLME region. The regional assessment will include but not be limited to:

- A historical review of the regional agreements and associated agencies (as listed above but not limited to the list) as well as pertinent regional projects (both current and historic) together with a compilation of national ecosystem-based cross-sectoral governance efforts based on national assessments reports.

- A review of the current status of international law/agreements in relation to the management and governance of ABNJ in the context of developing an LME-based regional governance strategy

Background

The Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project is part of a multi-project, multi-agency GEF supported Programme (UNDP/GEF ASCLME Project, UNEP/GEF WIOLaB Project, and WB/GEF SWIOFP) whose aim is to institutionalize a cooperative, adaptive and results-based management of the western Indian Ocean. A phased approach is planned that progressively builds the knowledge base and strengthens technical, managerial and decision-making capabilities at the national and regional scales so as to address transboundary development (in all relevant sectors) and environmental concerns; builds political will to undertake threat abatement activities; and leverages finances proportionate to management and governance needs.

The geographic coverage of the ASCLME GEF projects includes the area under the influence of two major currents – Agulhas Current and the Somali Current as well as the influence of the South Equatorial Current across the Mascarene ridge and basin. This encompasses ten countries – Comoro, France (Reunion and Mayotte), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania. The region includes also ocean areas that are beyond the jurisdiction of these countries

The implementation of the three projects has been out of phase due to differences in the start-up date/time. The WIOLaB Project has concluded and has already developed the TDA

and SAP for Land-Based Activities which will eventually feed into the region wide LME-focused TDA and SAP to be developed together with ASCLME and SWIOFP components. With regard to the assessment of policy and governance, both the ASCLME Project and SWIOFP intend to undertake this activity and there will be close cooperation and coordination.

The activities within the ASCLME Project for the first phase are focused on the collection of coastal and offshore data and information and capacity building. This is achieved by using research cruises to capture essential information relating to the dynamic ocean-atmosphere interface and other interactions that define the LMEs, along with critical data on offshore fisheries (to be provided by SWIOFP), and open water larval transport. The cruise data is supplemented with data and information collected on nearshore oceanographic conditions; the identification of nursery areas along the coast as well as socio economics (livelihoods) and governance mechanisms. The overall objective of this data capture is to deliver in the first instance national Marine Ecosystem Diagnostic Analyses (MEDAs) that feed into national policy and governance briefs, regional Transboundary Diagnostic Analyses (TDAs), and a comprehensive Regional Strategic Action Programmes (SAPs). The implementation of the recommended actions in the MEDAs at national level and the SAP at regional level would require policy, legal and institutional reforms as well as sustainable financing.

In this regard, the ASCLME Steering Committee has approved the undertaking of assessment of policies, legal, institutional and governance structures at national and regional levels so as to identify the requirements for the implementation of the LME (Ecosystem-Based) approach. The PCU of the ASCLME Project therefore intends to undertake this assessment and through this process, policy and decision makers will be appraised and engaged in the decision making process specifically with regard to the outcomes of the MEDAs and the SAP as well seeking their commitments for the leveraging of finances which is critical for the sustenance of the resources.

Methodology

National Consultants were recruited by the ASCLME Secretariat on the proposal of the participating countries and a National Consultants Workshop was held in Grahamstown South Africa, 27-28th September 2010. (Agenda in Appendix 2.) This was attended by 4 consultants from South Africa, Madagascar, Seychelles and Kenya. Apologies were received from consultants from Mozambique and Tanzania. As specified by the ToRs, this workshop was in part facilitated by the regional consultant and a common reporting methodology was agreed by the participants.

The final Report will incorporate the findings of the national consultants, who will present their first drafts a meeting in Nairobi (18-19 January 2010) so this first draft concentrates on the first and third bullets of the terms of reference and provides basic information about the various institutions and projects. Together with an Excel Spreadsheet of membership of key multilateral marine and environmental treaties. This will be updated in the light of data presented at the January Workshop. Bullets 1 and 3 are namely:

- A historical review of the regional agreements and associated agencies (as listed above but not limited to the list) as well as pertinent regional projects (both current and historic)

- A review of the current status of international law/agreements in relation to the management and governance of ABNJ in the context of developing an LME-based regional governance strategy

A. Historical Review of Regional Agreements, Projects and Associated Agencies in the Western Indian Ocean Region

The Western Indian Ocean area is extremely well provided for in terms of regional and sub regional organizations. These include a UNEP Regions Seas Convention (the Nairobi Convention), two Regional Fisheries Bodies (IOTC and SWIOFC) as well Regional IOC Bodies and co-ordinations on Marine and Fisheries issue through the Organization on African Unity. The original plan had to be to deal in Part A with existing regional arrangements and then to deal in Part B with bilateral eco-system based relations extracted from the compilation of national ecosystem-based cross-sectoral governance efforts based on the National Assessments reports. The following section demonstrates the range of collaboration that already exists within the region through the very large number and variety of international treaty arrangements, externally funded development projects and political organizations. Not surprisingly, the national studies were not able to identify additional important bilateral linkages – as this section indicates the regional collaborative agenda is already very full.

The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (The Nairobi Convention)

Background

Started in 1974 after the 1972 Helsinki Conference on the Human Environment, the UNEP Regional Seas Programme now includes more than 140 countries participate in thirteen Regional Seas programmes established under the auspices of UNEP regional seas programme covering Black Sea, Wider Caribbean, East Asian Seas, Eastern Africa, South Asian Seas, ROPME Sea Area, Mediterranean, North-East Pacific, North-West Pacific, Red Sea and Gulf of Aden, South-East Pacific, Pacific, and Western Africa. Six of these programmes, are directly administered by UNEP.[1] All of the Regional Seas programs have developed an Action Plan but most also have developed specific legal frameworks with Conventions and Protocols. No conventions have yet been developed for East Asian Seas, South Asian Seas, North West Pacific, North-East Pacific, or for the Arctic. In addition there

[1] See <http://www.unep.org/regionalseas/about/default.asp> accessed Jan 2011.

are a number of 'partner programmes' of regional seas treaties which are not under the UNEP umbrella.[2] It is also important to note that these conventions are primarily groupings of coastal states and their jurisdiction is generally restricted to their coastal zones. [3]

The East African Regional Seas Programme and the Nairobi Convention

UNEP's Governing Council decision 8/13C of 29 April 1980 created the Eastern African Regional Seas Programme, recognizing the environmental uniqueness of the coastal and marine environment of the region, the threats and the necessity for action, requested UNEP to create a regional seas programme for the region and further requested UNEP to assist the Governments of the region to formulate and implement a programme for the proper management and conservation of marine and coastal resources. The Nairobi Convention was in 1985 established to plan and develop programmes that strengthen the capacity Governments of the region to protect, manage and develop their coastal and marine environment sustainably.

The East African Action Plan was adopted in 1985 and came into force in 1986. It has now been ratified by all ten Eastern African countries.[4]

The Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region was signed in 1985 and but did not come into force until 1996. The original Convention was amended and the Amended Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean was adopted in April, 2010. The Nairobi Convention area extends from Somalia in the North to the Republic of South Africa in the South, covering 10 States, five of which are island States in the Western Indian Ocean and five mainland States. The 10 Contracting Parties are Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa.

According to UNEP, the Convention provides a mechanism for regional cooperation, coordination and collaborative actions in the Eastern and Southern African region that enables the Contracting Parties to harness resources and expertise from a wide range of

---

[2] These regional treaty regimes include those for the Antarctic, (Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR); in force 1982; the Baltic (Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention); adopted 1974, in force 1980, revised 1992, in force 2000); the Caspian, (Framework Convention for the Protection of the Marine Environment of the Caspian Sea; adopted 2003) and the North-East Atlantic (The Convention for the Protection of the Marine Environment of the North-East Atlantic – Oslo and Paris conventions adopted 1974, revised and combined into OSPAR Convention 1992, in force 1998.)

[3] The exceptions are the following: The OSPAR Convention which has high seas areas within its remit. The Mediterranean – where coastal states have for a number of reasons not claimed EEZs. The South Pacific which includes within its mandate the 'donut' holes between its members EEZs, and, of course, the Antarctic Treaty System consisting of both the Antarctic Treaty and its Protocol on Environmental Protection as well as the Convention for the Conservation of Antarctic Living Marine Resources (CCAMLR). CCAMLR which is a genuinely ecosystem based regime that regulates the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem.

[4] Action Plan for the Protection, Management and development of the Marine and Coastal environment of the Eastern Africa region. http://www.unep.org/NairobiConvention/about/Action_Plan.asp

stakeholders and interest groups towards solving interlinked problems of the coastal and marine environment including critical national and transboundary issues. The Convention offers a regional legal framework and coordinates the efforts of the member states to plan and develop programmes that strengthen their capacity to protect, manage and develop their coastal and marine environment sustainably. It also provides a forum for inter-governmental discussions that lead to better understanding of regional environmental problems and the strategies needed to address them; and promotes sharing of information and experiences in the WIO region and with the rest of the world.

Marine and coastal environments, and the goods and services they provide are under increasing pressure from unsustainable consumption and production patterns as well as ineffective management practices in most countries in sub-Saharan Africa. Some coastal urban hotspots are densely populated and rapidly industrializing. Those hotspots are facing a multitude of problems stemming from unplanned and unregulated land use patterns worsened by poor regulatory regimes. Coastal tourism is an important industry in Mauritius, Seychelles, Kenya, Tanzania and the Republic of South Africa. At the same time, there is an interest in exploring and exploiting potential oil and gas reserves, which could further exacerbate the destruction of critical habitats such as coral reefs, mangroves, beaches and sea grass meadows.

The Nairobi Convention Secretariat

The Nairobi Convention is coordinated by a Secretariat hosted by UNEP under the Division of Environmental Policy Implementation (DEPI). The Secretariat is supported by Regional Coordinating Unit in Seychelles, (EAF/RCU), a forum of national focal points, and thematic and technical task forces. The Secretariat is guided by the governments of the region through a network of national focal points and thematic experts groups such as Coral Reef Taskforce, Marine Turtle Task Force, Marine Protected Areas and Legal and Technical Working Group. The Secretariat also works closely with collaborating partners such as regional NGOs and various national and research institutions. It has recently successfully catalysed the establishment of the "Consortium for Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean" (WIO-C). This is a consortium between major NGOs in the Western Indian Ocean which have developed marine programmes. The aim is to enhance collaboration, exchange of information and synergy towards a joint programmatic approach in addressing marine and coastal environmental issue in the region.

Protocols:

At the Plenipotentiary Conference in June of 1985 where the Convention was adopted the Conference also adopted two Protocols. They both entered into force with the Convention on the 30 may 1996 which were also signed in 1985 and entered into force in 1996. All 10 Parties to the Convention are also parties to these Protocols :

- Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region; and

- Protocol Concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region.

At the Sixth Conference of the Parties (COP6) to the Nairobi Convention Secretariat held a Conference of Plenipotentiaries at the United Nations Environment Programme (UNEP) Headquarters at Gigiri in Nairobi Kenya, from 29 March to 1 April 2010, which considered and adopted, on 31 March, a Third Protocol:

- Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities.[5]

In February 2010 the Indian Ocean Commission (see below) completed a Feasibility Assessment of an ICZM Protocol to the Nairobi Convention which recommends further exploration of a similar protocol for East Africa – suggesting that the negotiation process itself would be a major capacity building exercise for the region. On 27 - 28 September 2010, with the support of ReCoMap (the EU Regional Programme for the Sustainable Management of the Coastal Zones of the Countries of the Indian Ocean) and the Indian Ocean Commission, the first Regional Working Group Meeting on the drafting of a new Protocol on Integrated Coastal Zone Management (ICZM) to the Nairobi Convention, was held in Mauritius. The meeting was in response to the Governments request as per Decision CP 6/3 which calls for 'Strengthening Integrated Coastal Zone Management in the Western Indian Ocean Region'. The meeting was designed to :

a) Develop an outline of the ICZM Protocol text (content, structure, technical language, issues covered, listing of provisions);

b) Develop a road map on the drafting and negotiation process of the ICZM Protocol to be presented during the 7th Conference of the Parties of the Nairobi Convention; and

c) Assess the potential needs for support (capacity, financial, structural, legal, etc).

The meeting participants were drawn from the Nairobi Convention countries that included, Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa. Each governments had nominated two experts, a legal and a technical expert who participated in the drafting of the ICZM Protocol.

Area of Application of the Convention and its Protocols

Like most of the UNEP Regional Seas Conventions the Nairobi Convention specifically limits the geographic area of application of the Convention to the environment falling within the jurisdiction of the contracting parties to the Convention."(Article 2(a)). This means that the extet of the convention corresponds with the extent of the coastal states maritime zone claims recognized by the 1982 Law of the Sea Convention – namely 200 nautical miles from

[5] For text see: http://www.unep.org/NairobiConvention/The_Convention/Protocols/Protocol_Land_Based_Sources_and_Activities.asp

their coastal baselines.[6] Unusually the Convention does go on to provide in its Article 14(2) that "the Contracting Parties shall endeavour to participate in international arrangements for research and monitoring outside the Convention area" which suggest support for a broader ecosystem approach to research and monitoring. The Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region applies to the same geographic area as the Convention itself and it has specific provisions envisaging regional co-operation among the participating states in the protection of fauna and flora (Article 16) and requires consultation between Contracting Parties that are envisaging the establishment of protected areas 'contiguous to the frontier or limits of their zones of national jurisdiction' and also consultation with non parties in such situations with a view to collaboration in the establishment of what it terms "Frontier Protected Areas" (Article 13). [7]

Le Commission de l'Océan Indien

Le Commission de l'Océan Indien [Indian Ocean Commission] was created in 1984 by *l'Accord Général de Victoria* (Seychelles) [The General Agreement of Victoria]. It is an intergovernmental organization between Comoros, Madagascar, Mauritius, France (on behalf of Réunion) and the Seychelles to encourage diplomatic, economic and commercial cooperation between member States. Official language of the Commission is French. The Commission is currently administering projects worth some 62 million Euros; [8] its work is directed towards the protection of the interests of the island member states of the Indian Ocean in international and regional forums, protection of the environment and natural resources and regional human development:

- la défense des intérêts insulaires de ses pays membres dans les enceintes internationales et auprès des organisations d'intégration régionale ;
- la préservation et la valorisation de l'environnement et des ressources naturelles ;
- la dimension régionale du développement humain.

As indicated above in February 2010 the Indian Ocean Commission completed a Feasibility Assessment of an ICZM Protocol to the Nairobi Convention which recommended further exploration of a protocol for East Africa – suggesting that the negotiation process itself would be a major capacity building exercise for the region. On 27 - 28 September 2010, with the support of ReCoMap (the EU Regional Programme for the Sustainable Management of the Coastal Zones of the Countries of the Indian Ocean) and the Indian Ocean Commission, the first Regional Working Group Meeting on the drafting of a new Protocol on Integrated Coastal Zone Management (ICZM) to the Nairobi Convention, was held in Mauritius.

The Indian Ocean Tuna Commission

[6] Note that The Seychelles has claimed archipelagic status under the Convention. This means the 200 nm zone is measured from straight baselines drawn around the outermost parts of the archipelago – which meet the requirements of Art XX, LOSC.

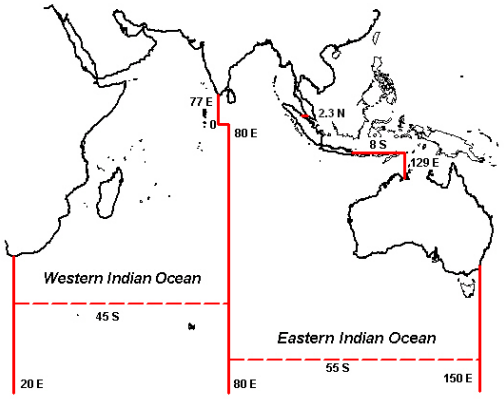
[7] I am grateful to Dr Dixon Waruinge Executive Secretary of the Nairobi Convention for drawing this to my attention.

[8] For its funded projects see http://www.coi-ioc.org/index.php?id=167

The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organization mandated to manage tuna and tuna-like species in the Indian Ocean and adjacent seas. Its objective is to promote cooperation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilization of stocks and encouraging sustainable development of fisheries based on such stocks.

The Indian Ocean Tuna Commission was established by an Agreement drawn up at Rome under Article XIV of the FAO Constitution in 1993. The Agreement entered into force on 27 March 1996. Under Article XIV of the FAO Constitution bodies established by such agreements may have full management powers. These are normally created by international treaties that are registered with the UN. Such bodies are the creatures of the treaty which establishes them, though all bodies established by this process have a clause in the treaty stating that they are within the FAO framework. Article XIV treaties are autonomous treaty regimes (unlike the advisory bodies established under Article VI FAO Constitution), therefore the parties can commit themselves to agreeing to binding conservation and management measures. Examples include the Indian Ocean Tuna Commission (IOTC), but also the General Fisheries Commission for the Mediterranean (GFCM), and the Regional Commission for Fisheries (RECOFI), among the Gulf States. Some of the bodies established by treaty made under Article XIV have very wide powers, while others like the Asia-Pacific Fisheries Commission (APFIC) are Advisory. [9]

Article II of the Treaty defines the "Area of Competence" of the Commission as "the Indian Ocean (defined for these purposes of this Agreement as being FAO statistical areas 51 and 57) and adjacent seas, north of the Antarctic Convergence, insofar as it is necessary to cover such areas for the purpose of conserving and managing stocks that migrate into or out of the Indian Ocean."



IOTC "Area of Competence" (FAO website)

Membership of the IOTC is only open to Members and Associate Members of FAO. This limitation provides an issue for Taiwan which is a so-called "fishing entity" for the purposes of many fisheries agreements but is not a party to FAO. However despite these and other

[9] See generally David Freestone, "Fisheries Commissions and Organizations" ***Max Planck Encyclopedia of Public International Law***, OUP 2010.

issues identified by the Performance Review discussed below, IOTC members and FAO itself are reported to have resisted attempts to delink the IOTC from FAO.[10]

Current members of the IOTC are Australia, Belize, China, Comoros, Eritrea, European Community, France, Guinea, India, Indonesia, Iran (Islamic Republic of), Japan, Kenya, Madagascar, Malaysia, Mauritius, Oman, Pakistan, Philippines, Republic of Korea, Seychelles, Sierra Leone, Sri Lanka, Sudan, Thailand, United Kingdom, United Republic of Tanzania, Vanuatu. (Cooperating Parties are: Senegal, South Africa, and Uruguay).

In 2007, the IOTC in response to calls from the international community concerned at the ineffectiveness of many Regional Fisheries Management Organisations (RFMOs) commissioned a Performance Review. The 2009 Report of the Review Process highlights why the IOTC as currently constituted is not an appropriate body to implement an ecosystem approach. [11] The IOTC- unlike other RFMOS –such as NEAFC has not amended its treaty framework to reflect current requirements of international fisheries law contained in instruments such as the 1995 UN Fish Stocks Agreement or the FAO Code of Conduct for Responsible Fisheries. These require the application of the precautionary approach, and the ecosystem approach to management. [12] Although an IOTC Working Party on Ecosystem and Bycatch does meet regularly to examine implementation of an ecosystem approach to fisheries, their focus has been on bycatch of other fish, sharks, sea turtles and seabirds.

The Performance Review provides a swingeing criticism of the current outdated text of the IOTC Treaty and status as an FAO Article XIV Organisation. It is worth reproducing the text of the Executive Summary of the Review in this regard:

> **The legal framework of the IOTC Agreement**
>
> The analysis of the legal text of the IOTC Agreement identified a series of gaps and weaknesses which can be summarized as follows:
> - 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

[10] William R. Edeson, "An international legal extravaganza in the Indian Ocean: placing the Indian Ocean Tuna Commission outside the framework of FAO" (2007) 22 ***International Journal of Marine and Coastal Law*** (IJMCL) 485-516.

[11] http://www.iotc.org/files/misc/performance%20review/IOTC-2009-PRP-R%5BE%5D.pdf

[12] See eg David Freestone "International Fisheries Law since Rio - the continued rise of the Precautionary Principle" in Alan Boyle and David Freestone, eds., ***International Environmental Law and Sustainable Development,*** OUP 1999, 135-164.

prevents major fishing players in the Indian Ocean from discharging their obligations to cooperate in the work of the Commission.

- The IOTC relationship to FAO, most notably in the budgetary context, negatively affects the efficiency of the work of the Commission, with neither Members nor the Secretariat in full control of the budget. This also raises questions relating to the level of transparency in the Commission's financial arrangements.

The Panel *recommends* that the IOTC Agreement either be amended or replaced by a new instrument. The decision on whether to amend the Agreement or replace it should be made taking into account the full suite of deficiencies identified in the Review.

Similarly the Review Panel's analysis of the performance of the Commission highlighted numerous other weaknesses in workings of the Commission. It found:

High levels of uncertainty

The quantitative data provided for many of the stocks under the IOTC Agreement is very limited. This is due to lack of compliance, a large proportion of catches being taken by artisanal fisheries, for which there is very limited information, and lack of cooperation of non-Members of the IOTC. The data submitted to the Commission is frequently of poor quality. This contributes to high levels of uncertainty concerning the status of many stocks under the IOTC mandate.

Poor record of compliance and limited tools for addressing non-compliance

Low levels of compliance with IOTC measures and obligations are commonplace. The Commission to date has taken very limited actions to remedy this situation – there are currently no sanctions/penalties for non-compliance in place. Moreover, the list of illegal, unreported and unregulated (IUU) vessels applies to non-Members only.

Special requirements of developing States

Many developing States are experiencing serious capacity/infrastructure constraints which impede their ability to comply with their obligations, especially in terms of data collection, reporting and processing. A number of developing States also lack appropriate scientific expertise and, even where such expertise is available, budgetary constraints limit their participation in Commission meetings, particularly those of the Scientific Committee and working parties.

In the light of these findings the Review Panel made a number of *Recommendations* which are of direct relevance to the ASCLME Countries in their search for an ecosystem approach to marine resource management:

Uncertainty

Addressing uncertainty in data and in the stock assessments is one of the most fundamental and urgent actions required to improve the performance of the Commission. This will require a variety of actions of which the most important are: application of scientific assessment methods appropriate to the data/information

available, establishing a regional scientific observer programme to enhance data collection for target and non-target species, and improving data collection and reporting capacity of developing States. Also engaging non-Members actively fishing in the area is of critical importance to addressing uncertainty. Equally important are developing a framework to take action in the face of uncertainty in scientific advice and enhancement of functioning and participation in the Scientific Committee and subsidiary bodies.

Compliance

It is imperative to strengthen the ability of the Compliance Committee to monitor non-compliance and advise the Commission on actions which might be taken in response to non-compliance. Sanction mechanisms for non-compliance and provisions for follow-up on infringements should be developed. The Resolution on the establishment of the IUU list should be amended to allow for the inclusion of vessels flagged to Members.

Special requirements of developing States

Increased financial support for capacity building should be provided to developing States. The Commission should enhance already existing funding mechanisms to build developing States' capacity for data collection, processing and reporting, as well as technical and scientific capabilities. In this context, the possibility of establishing a special fund to facilitate participation in the Commission's work, including subsidiary groups should be considered. Strengthening the Secretariat's role/ability to undertake targeted capacity building should be explored

South West Indian Ocean Fisheries Commission (SWIOFC)

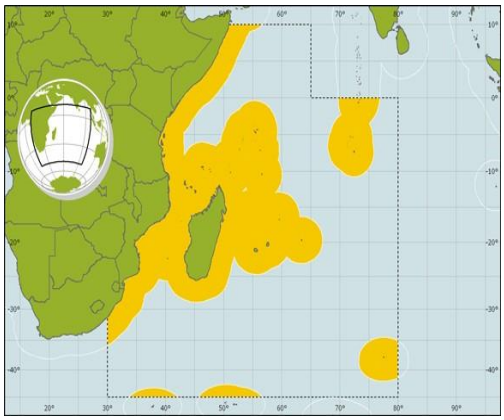
The South-West Indian Ocean Fisheries Commission (SWIOFC) was established in 2004 by Resolution 1/127 of the FAO Council as an Article VI FAO Regional Fishery Body. Its Rules of Procedure were adopted by the Commission at its First session in 2005. Unlike Article XIV Bodies like the IOTC (discussed above), Article VI Fishery Bodies are not established by treaty but are created directly by the FAO Conference or Council and report to either the FAO Conference or the Council. They are purely advisory. They are empowered to make only non-binding recommendations, or, to use the language of Article VI.1 itself, to "advise on the formulation and implementation of policy and to coordinate the implementation of policy". In the marine fisheries area, such bodies are: the Western Central Atlantic Fishery Commission (WECAFC) and the Fishery Committee for the Eastern Central Atlantic (CECAF), and in the Western Indian Ocean Region, the Southwest Indian Ocean Fisheries Commission (SWIOFC). [13]

SWIOFC was designed to function as an advisory body promoting the sustainable development and utilization of coastal fishery resources off the shores of East Africa and several island States of the region, as well as responsible management and regional

[13] See David Freestone, "Fisheries Commissions and Organizations" ***Max Planck Encyclopedia of Public International Law***, OUP 2010.

cooperation on fisheries policy. The Commission membership is open to the 14 coastal States whose territories are situated wholly or partly within the SWIOFC area of competence. Other countries may participate as observers. The Commission is composed of such Members and Associate Members of the Organization that are coastal States, whose territories are situated wholly or partly within the area of the Commission, and which notify in writing to the Director-General their interest in becoming a member of the Commission.

The jurisdictional area of the South West Indian Ocean Fisheries Commission covers all the waters of the Coastal States that are current members of the Commission. It does not have a mandate in relation to areas beyond national jurisdiction. Current members are: Comoros, France, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania and Yemen.



South West Indian Ocean (from FAO website)

Part of the motive for establishing SWIOFC was that FAO research studies showed that in the entire West Indian Ocean -- the larger region encompassing the zone where SWIOFC would operate -- 75 per cent of fishery resources were y being fished at their maximum biological productivity. The other 25 per cent were overexploited and required better management.

But breaking that down to get an accurate picture of the state of stocks in the South-Western Indian Ocean is difficult, since data collection there is weak or non-existent. It is known that catches have grown by over 10 per cent over the last decade, with landings in 2001 (319,000 tonnes) representing an all-time high. However, the FAO statistical reviews show that as much as 33 per cent of catches are not identified by species, making analysis of the status of stocks -- and, by extension, responsible management -- difficult.

“These data gaps are why it’s important to have a body like SWIOFC to help improve data monitoring and collection”, says Jean François Pulvenis de Séligny, Director of FAO’s Fishery Policy and Planning Division, adding that a strong and sustained commitment by the commission’s members is necessary to ensure it will meet its goals. [14]

The SWIOFC held its first meeting in Mombasa, Kenya, 18-20 April, 2005, during which it agreed to establish a Scientific Committee to focus on fisheries data collection and on

[14] Source FAO Press Release http://www.un.org/News/Press/docs/2005/sag356.doc.htm

providing resource managers with much-needed information on the status of stocks and to advise on the scientific basis for possible regulatory measures to be considered for adoption by the individual member states of the Commission – for the Commission itself has no power to adopt collective binding regulatory measures. The Commission's management mandate is to promote the sustainable utilization of the living marine resources by complying with, and promotion of, the FAO Code of Conduct on Responsible Fisheries, including the precautionary approach and the ecosystem approach to fisheries management. The Commission will meet at least once every two years and to date there have been two sessions of the Commission

The fish resources of the coastal waters of the South-Western Indian Ocean constitute a major source of animal protein for many near-shore communities. At the same time, exports of fishery products represent a vital source of exchangeable earnings. Madagascar and Mozambique, for example, have important shrimp fisheries, as do Tanzania and Kenya to a lesser extent. The majority of fishing boats operating in the South-Western Indian Ocean come from overseas -- with Spain, Taiwan Province of China, Japan, France and Uruguay in the lead.

SWIOFC's mandate focuses on coastal fishing, as a result of which FAO convened further talks in 2006 to negotiate a parallel agreement on regional cooperation on high-seas fishing of non-tuna resources. This is the Southern Indian Ocean Fisheries Agreement discussed below.[15]

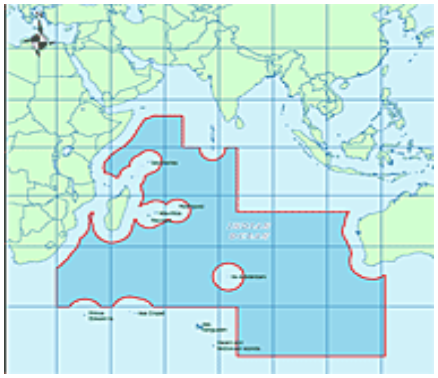
[15] Source FAO Press Release http://www.un.org/News/Press/docs/2005/sag356.doc.htm

The South Indian Ocean Fisheries Agreement (SIOFA)

The Agreement was negotiated under the auspices of FAO in 2006 and signed by six states: the Comoros, France, Kenya, Mozambique, New Zealand and Seychelles, plus the European Community. The South Indian Ocean Fisheries Agreement (SIOFA) is aimed at ensuring the long-term conservation and sustainable use of fishery resources other than tuna in areas that fall outside national jurisdictions, taking into account the needs of developing States bordering the Area that are Contracting Parties to this Agreement, and in particular the least-developed among them and small island developing States.

The geographic area of application of SIOFA is extensively detailed in Article 3 of the Agreement. It contains a large portion of the high seas Indian Ocean, and excludes all waters under national jurisdiction – see attached map:

> Article 3: This Agreement applies to the Area bounded by a line joining the following points along parallels of latitude and meridians of longitude, excluding waters under national jurisdiction:
> Commencing at the landfall on the continent of Africa of the parallel of 10° North; from there east along that parallel to its intersection with the meridian of 65° East; from there south along that meridian to its intersection with the equator; from there east along the equator to its intersection with the meridian of 80° East; from there south along that meridian to its intersection with the parallel of 20° South; from there east along that parallel to its landfall on the continent of Australia; from there south and then east along the coast of Australia to its intersection with the meridian of 120° East; from there south along that meridian to its intersection with the parallel of 55° South; from there west along that parallel to its intersection with the meridian of 80° East; from there north along that meridian to its intersection with the parallel of 45° South; from there west along that parallel to its intersection with the meridian of 30° East; from there north along that meridian to its landfall on the continent of Africa.



The Agreement is based on a number of established principles set out in Article 4 that reflecting modern developments in fisheries law after the 1992 UN Conference on Environment and Development and the conclusion of the 1995 UN Fish Stocks Agreement and the 1995 FAO Code of Conduct for Responsible Fisheries (with key phrases in added italics)

a) measures shall be adopted on the basis of the *best scientific evidence* available to ensure the long-term conservation of fishery resources, taking into account the sustainable use of such resources and implementing *an ecosystem approach* to their management;
(b) measures shall be taken to ensure that the *level of fishing activity is commensurate* with the sustainable use of the fishery resources;
(c) the *precautionary approach* shall be applied in accordance with the Code of Conduct and the 1995 Agreement, whereby the absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures;
(d) the fishery resources shall be managed so that they are maintained at levels that are capable of producing the maximum sustainable yield, and depleted stocks of fishery resources are rebuilt to the said levels;
(e) fishing practices and management measures shall take due account of the need to *minimize the harmful impact that fishing activities* may have on the marine environment;
(f) *biodiversity in the marine environment shall be protected*; and
(g) the *special requirements of developing States* bordering the Area that are Contracting Parties to this Agreement, and in particular the least-developed among them and small island developing States, shall be given full recognition.

Article 10 requires a number of concrete actions from its parties, including:

- establishing effective mechanisms to monitor fishing in the SIOFA area;
- providing annual reports on fishing operations, including amounts of captured and discarded fish;
- conducting inspections of ships visiting ports of the parties to verify they are in compliance with SIOFA regulations, and denying landing and discharging privileges to those who do not comply.

Other joint actions include undertaking regular studies of the state of fish stocks and the impact of fishing on the environment, implementing joint management and conservation measures, and establishing rules for member countries to decide which operators are allowed to fish in the SIOFA area.

There is overlap between areas of application of SIOFA and the IOTC, the two agreements are responsible for different species of fish. Whereas the IOTC has a mandate for tuna and tuna-like highly migratory fish, the SIOFA is concerned with other fish species, with particular focus on demersal species (such as orange roughy) which have attracted significant fishing effort. FAO has noted the detrimental impact that such deep sea fishing can have on the seabed environment, including seamounts, and the subject is now both listed on the FAO Committee on Fisheries (COFI) agenda and addressed by the recent FAO International Guidelines on the Management of Deep Sea Fisheries in the High Seas.

Article 24 provides that the Agreement will enter into force 90 days from the date of receipt of the fourth instrument of ratification, acceptance or approval. On 23 August 2010

Mauritius announced it ratification of the Agreement – joining Cook Islands, the EU and the Seychelles – bringing the parties to four. Although this was reported to have brought the Agreement into force, [16] in fact the text of the Agreement provides that it will come into force on "receipt by the Depositary of the fourth instrument of ratification, acceptance or approval, at least two of which have been deposited by coastal States bordering the Area." It has been ratified by Mauritius and Seychelles (coastal states) and approved by the EU. Although the Cook Islands "acceded" to the agreement on 15 June 2008 it seems that accession does not meet the wording cited above and hence the agreement has not yet entered into force.

On the agreement itself, Rogers, Warner and Lugten comment: "The effectiveness of the forthcoming SIOFA management regime is impossible to predict, but the concerns of States such as Australia (which failed to be an original signatory) and those States which were original signatories, but have for some years failed to ratify the Agreement, should be noted... [there are] three primary concerns regarding SIOFA:

a) The need for SIOFA emerged in the 1990s when the Orange Roughy Indian Ocean fishery commenced operation. After years of prolonged and frequently sidetracked negotiations between coastal States, industry, FAO and other RFBs, SIOFA was finally negotiated, but there was widespread consensus that the new Agreement was too little, too late.

b) That there are only a few boats on the high seas now, so the work (and costs) involved in setting up an international arrangement makes it hard to justify support for SIOFA;

c) In the case of Australia, the UNGA Resolution 61/105 on Sustainable Fisheries will be strictly applied by Australia (given that Australia introduced the UN Resolution). Similarly, states such as South Africa, New Zealand, Canada and the United States, (which strongly supported the Resolution), will also act to prevent their vessels engaging in an unregulated fishery operating in the Southern Indian Ocean area. The problem remains those states which will not exercise strong flag state jurisdiction to control their fleets." [17]

The private sector organisation Southern Indian Ocean Deepsea Fisheries Association (SIODFA) formed in 2006 has been pressing for the Agreement to come into force. They argue that entry into force of the agreement should remove any uncertainty and delay over introducing essential fisheries management arrangements. It will also provide a formal means of executing the various management and conservation measures that the Association's members have been undertaking voluntarily in relation to their fishing operations and which have been beyond those that were called for in the interim measures adopted by the signatories to SIOFA at their ceremony at the Food and Agriculture Organization of the United Nations in Rome in July 2006.

[16] Press Release http://www.fis.com/fis/worldnews/worldnews.asp?l=e&country=0&special=&monthyear=&day=&id=37823&ndb=1&df=0

[17] Alex Rogers, Robin Warner and Gail Lugten, *IUCN Indian Ocean Seamounts Project: Institutional And Legal Gap Analysis*, 2010.

SIODFA vessels have been engaged in a voluntary programme of collection of biological data of species targeted by the fishery, primarily *orange roughy* and *alfonsino* and also data on bycatch of coldwater corals and deepwater sharks. Several of the Association's vessels have also been undertaking aggregation-based acoustic stock-assessment surveys as an integral part of their commercial fishing operations. All of the Association's vessels are equipped with the advanced acoustic systems needed to undertake such quantitative assessment surveys.[18]

18

http://www.fis.com/fis/worldnews/worldnews.asp?l=e&country=0&special=&monthyear=&day=&id=37823&ndb=1&df=0

Indian Ocean MOU on Port State Control

Background

This is part of a worldwide network of MOUs on the exercise of powers by port States. Under international law, States have the right to control any activities within their own borders, including those of visiting ships. Control by a port State, over the foreign flag ships in their ports, for verifying compliance with the requirements of the international maritime conventions, on the basis of the above philosophy, is called port State control (PSC). PSC comes onto the scene when ship owners, ship managers, classification societies and flag State administrations have failed to comply with the requirements of international maritime conventions. Although it is well understood that the ultimate responsibility for implementing conventions is left to the flag States, port States are entitled to control foreign ships visiting their own ports to ensure that any deficiency, including that concerning living condition and safety of ship staff, found are rectified before they are allowed to sail. Port State control is regarded as measures complementary to the flag State control.

Major shipping disasters, causing alarming damage to the environment, made the whole world concerned about protection of their coastal water. The European Memorandum on port State control, popularly known as Paris MOU, is the first of a series of such arrangements concluded to date. The International Maritime Organisation (IMO) played major role in formulation of these MOUs. The MOUs are not legally binding treaties but mutual agreements by a series of countries in a particular region to exercise their sovereign powers in a similar way according to agreed criteria. [19]

The origin of the Indian Ocean MOU was a review of the adequacy of the region's maritime safety infrastructure, as well as compliance with the requirements of International Maritime Conventions that was carried out during August/September 1997. From this, it was felt that

[19] Existing PSC MOU to date are Paris MOU (Europe and North Atlantic region); Latin American MOU (Latin American region); Asia-Pacific MOU (Asia-Pacific region), Caribbean MOU (Caribbean region), Mediterranean MOU (Mediterranean region), Indian Ocean MOU (Indian Ocean region) West and Central African MOU (West and Central African region), Black Sea MOU (Black Sea region), Riyadh MOU (The Gulf region)

regional co-operation for the countries on the Indian Ocean rim, would be the solution to control the plying of sub-standard ships in the region.

At the invitation of the Secretary General of the International Maritime Organisation, and with a generous offer of the Government of India to host the meeting, the first preparatory meeting on the developing of flag and port State capabilities in the Indian Ocean rim was held from 13th to 17th October 1997, at Mumbai, Delegations from the following countries attended the meeting: Australia, Bangladesh, Djibouti, Eritrea, Ethiopia, India, Kenya, Maldives, Mauritius, Mozambique, Myanmar, Oman, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania and Yemen.

A draft Memorandum, drawn at this meeting, was subsequently finalised between 1-5 June 1998, in Pretoria, during a second preparatory and signatory meeting hosted by the Government of South Africa. In addition to the countries mentioned earlier, Sudan & Iran participated in this meeting. During this period and at the first meeting, the following countries signed acceptance of the Memorandum of Understanding: Australia, Eritrea, India, Sudan, South Africa and Tanzania. Subsequently, Mauritius, SriLanka, Iran, Kenya, Maldives, Oman, Yemen, France and Bangladesh acceded to the MOU. The Memorandum came into effect on 1st April 1999.

The Memorandum was kept open for signature at the Head Quarters of the Secretariat in Goa, India, from 5th June, 1998 to 22nd January, 1999. The first committee meeting of MOU took place at Goa from 20th to 22nd January 1999. The 14th was held in Goa in 12-15th September 2011.

Current Status

As indicated above the MOU originally dates from June 5, 1998, but has been revised and updated on a number of occasions since then, most recently in 2011.[20] It now has nineteen countries' member: Australia, Bangladesh, Djibouti, Eritrea, France(La Reunion Island), India, Iran, Kenya, Maldives, Mauritius, Mozambique, Myanmar, Oman, Seychelles, South Africa, Sri Lanka, Sudan, Tanzania, Yemen. (Ethiopia is an observer)

The Port State Control MOU aims to verify whether foreign flag vessels calling at a port of a member state, comply with applicable international maritime conventions. When vessels are not found in substantial compliance with applicable laws or relevant convention requirements, the PSC system impose actions to ensure that they are brought into compliance. Ships to be inspected are selected on the basis of criteria outlined in the MOU and a non-discriminatory policy is observed.

The IOMOU Secretariat is based at Goa in India. The secretariat is governed by and accountable to the Committee of the IOMOU on Port State Control. It services the Committee meetings and assists the Committee in its activities.[21] Data on inspections carried out under the MOU are collected by the Secretariat.[22]

[20] For current text see text cited as 5th Revision: http://www.iomou.org/secmain.htm
[21] http://www.iomou.org/
[22] http://www.iomou.org/secmain.htm

Western Indian Ocean Marine Science Association (WIOMSA)

The Western Indian Ocean Marine Science Association (WIOMSA) is a regional professional, non-governmental, non-profit, membership organization, registered in Zanzibar, Tanzania. The organization 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, Reunion(France)), with a view toward sustaining the use and conservation of its marine resources. The Association has about 1000 individual members as well as about 50 institutional members from within and outside the region.

The organization's inter-disciplinary membership consists of marine scientists, coastal practitioners, and institutions involved in the advancement of marine science research and development. The Association: (1) provides a forum for communication and exchange of information amongst its members that promotes and fosters inter-institutional linkages within and beyond the region; (2) supports marine research by offering research grants; (3) implements programs to build the capacity of marine scientists and coastal management practitioners; and (4) works to promote policy dialogue on key topics by organizing meetings and seminars on the findings and policy implications of science.

WIOMSA promotes marine science research through the award of research grants under the Marine Science for Management (MASMA) and the Marine Research Grant (MARG) programmes. MASMA is a competitive research grant scheme designed to support research activities in the region as well as organisation of training courses/workshop.
In addition to the on-going capacity building program in ICM and MPA, WIOMSA has organized/hosted a number of regional workshops and meetings that provided the linkage between science and management.

Recently, WIOMSA also signed Memorandum of Understanding with UNEP as the secretariat to the Nairobi Convention, whereby WIOMSA will be responsible for providing research, technical, managerial and advisory support to UNEP as requested.

WIOMSA in collaboration with UNEP is hosting a regional Group of Experts on Marine Protected Areas for the Eastern African region (GEMPA). GEMPA has been established with the aim of building a constituency for marine protected areas in the region and to provide a forum for linkages and dialogue between MPA practitioners and experts, and between government and non-government organizations.

WIOMSA is also a key player in a number of important partnerships:

1. *Forum of Heads of Academic/Research Institutions in the WIO regions (**FARI**)*

The Forum of Heads of Academic/Research Institutions in the Western Indian Ocean region is an autonomous network established by the UNEP, as the Secretariat of the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African region (Nairobi Convention) and the Western Indian Ocean Marine Science Association (WIOMSA). It was established according to the decision of the Fourth

Meeting of the Contracting Parties to the Nairobi Convention, which was held in Madagascar in July 2004. The decision directed the Secretariat of the Nairobi Convention, in collaboration with other organizations, to facilitate the establishment of the Forum of Academic and Research Institutions in the region. More specifically the Forum was established to:

- Facilitate the sharing of information between these institutions and the Nairobi Convention as well as amongst themselves;
- The need for scientific and technical forum to review the implementation and the outputs of the Conventions work plans and projects;
- Enhance cooperation amongst universities and research institutions in the region;
- Coordinate and facilitate identification of opportunities for collaborative research that are in line with the work programme of the Nairobi Convention.

This decision acknowledged the fact that the heads of academic and research institutions in the region have an important role to play spearheading not only research and related activities in their respective institutions and countries but also in providing a critical linkage between researchers and decision-makers at different levels. This is due to the fact that as heads of institutions, they are well informed of what their researchers are doing and is familiar of the government's decision-making processes because of their memberships to different government committees.

The Forum was established in recognition of the following limitations in the region:

- Absence of a mechanism for linking research and academic institutions with decision-making processes at the regional level. There are no formal avenues for channeling information to and from research and academic institutions to regional mechanisms such as the Nairobi Convention or Intergovernmental Oceanographic Commission (IOC)'s Regional Committee for the Western Indian Ocean (IOC-WIO). This means results from research being conducted by the research institutions are not communicated directly to the decision-makers and consequently, leading to failure to influence decisions at that level and also feed-back and recognition for their work.
- Inadequate visibility. Many research institutions have been around for a number of years, however for various reasons, their strength, opportunities they offer, facilities they have and their staff profile, are not known outside their countries.
- Inadequate sharing and exchange of information amongst institutions. More research is being conducted in the region now in comparison to previous years. However, most of the institutions in the region are not aware what other institutions in the same country are doing, let alone those from other countries in the region. Absence of networks to foster research or information sharing among institutions, is contributing to such a situation.
- Inadequate involvement of regional institutions in regional initiatives. A number of regional programmes/projects have been or are being initiated with limited involvement of regional organizations. Inadequate profiles of institutions, their expertise and facilities, are one of the main factors that have led to strengths and capability of regional institutions not to be known within and outside the region.

2. *Socioeconomic Monitoring Network, Western Indian Ocean (SocMon WIO)*[23]

Regional interest in socio-economic monitoring was illustrated by enthusiastic participation in socio-economic monitoring workshops, the WIOMSA/IUCN workshop on Human Dimensions of Coastal and Marine Environment (April 2003); the CORDIO Regional partnership workshop on socio-economics (June 2005); the CORDIO national partnership workshops in Kenya and Tanzania in November 2008 and the ReCoMaP Regional MPA workshop in May 2007. The 2005 partnership workshop was the beginning of SocMon WIO programme, an expanded regional socioeconomic monitoring initiative. The programme grew from a socioeconomic monitoring pilot project (SEMPP) initiated by CORDIO East Africa in 2001. Monitoring was done in one pilot site, Diani-Chale in Kenya. This later expanded to include three more sites, Msambweni-Kenya; Tanga and Mtwara-Tanzania in 2003 under the Socio-economic Monitoring Project (SEMP). Interest in conducting socio-economic monitoring in the WIO has been growing since. There are currently 17 sites doing socioeconomic monitoring spread in Comoros, Kenya, Madagascar, Rodrigues, Mozambique, Seychelles, and Tanzania

SocMon WIO Goal is to establish a network for socioeconomic monitoring in the Western Indian Ocean (SocMon WIO) to improve coastal management. Its Vision statement is 'The identification of stakeholders, their needs, perceptions and relationships, the opportunity for stakeholders to be involved in and provide feedback to management, identification of threats to the marine environment and their causes, assessment of the impact and effectiveness of management strategies, and methods of improving management.'

SocMon WIO objectives are to :-

1. Establish socio-economic monitoring at a representative suite of sites in the region, managed by different partners under a single framework.
2. Facilitate coordination of monitoring activities in the Western Indian Ocean through a socio-economists network, promoting standardised monitoring throughout the region.
3. Establish a coordinated data archiving reporting and sharing protocol for partners within the region and applicable to sites outside.
4. Establish reporting and educational guidelines for disseminating the information widely, targeting managers, government policy makers, resource users and schools.

3. *WWF East African Marine Ecoregion WWF-EAME*

The origin of the WWF East African Marine Ecoregion concept is a vision statement developed by the participants at a meeting in Mombasa in April 2001, to describe what the region should be striving for over the long term and agreed that 50 years from now the Eastern African Marine Ecoregion should be...

"a healthy marine and coastal environment that provides sustainable benefits for present and future generations of both local and international communities, who also understand and actively care for its biodiversity and ecological integrity."[24]

[23] http://www.wiomsa.net/index.php?option=com_content&view=article&id=319&Itemid=112
[24] http://www.wiomsa.net/index.php?option=com_content&view=article&id=328&Itemid=368

To proceed from the vision to the reality of a healthy and productive ecoregion, the participants at the Mombasa workshop concluded that it was important to extend partnerships to involve other professionals. It was also noted that there was a need to fill gaps in current marine and coastal conservation efforts and that a preliminary assessment of current conservation initiatives should be undertaken, to learn from previous experiences. There was general acceptance of the need to boost our knowledge of species, habitats, the way that these resources are used, as well as to promote greater public awareness of the value and role of the biodiversity of the coast. Support for research and conservation, and a change of focus from conserving endangered species to conserving whole areas of biodiversity was recommended, as was the need to examine over-exploitation of some fisheries and pollution from land based activities. WWF, under its Ecoregion Conservation Programme, can contribute to resolving some of these issues.

It was recognised that the practical implementation of this vision will involve a balance between conservation and consumption, between human needs and those of other species in the ecoregion, and between the needs of present and future generations. If we concentrate our efforts on the 21 sites, much of the coastal and marine biodiversity of the eastern African marine ecoregion, and its integrity, will be sustained. This approach also anticipates that while conservation efforts are focused on specific areas, the wider public (i.e. educators, civil society, industry, governments, etc.) will increase their understanding and appreciation of marine biodiversity and its importance. Only through their participation, can alternatives be found to practices that are steadily eroding the integrity and value of our coastal assets.

Understanding marine biodiversity as a valuable asset has evolved gradually over the past thirty years. Recognising the importance of a regional approach to sustaining marine biodiversity is a concept that has developed even more recently. At a regional level, there has already been some cooperation to examine the loss of marine and coastal biodiversity. Beginning in 1985, the governments of the western Indian Ocean countries have regularly met and agreed on plans to examine the loss of marine habitats. They have accepted the integrated coastal zone management (ICZM) approach as the way forward by signing the Arusha Resolution in 1993 and have initiated implementation of the Nairobi Convention of 1985 through committing resources and efforts towards prioritising areas for marine conservation. The importance of partnerships to assist in implementation has also been acknowledged. As a partner, WWF will play an expanding role helping the people of Somalia, Kenya, Tanzania, Mozambique and South Africa to protect their marine ecological heritage.

Coastal Ocean Research and Development in the Indian Ocean (CORDIO)

Coastal Ocean Research and Development in the Indian Ocean (CORDIO) [25]was initiated in 1999 as a direct response to the El-Niño related mass bleaching and mortality of corals in the Indian Ocean in 1998, focusing initially on Eastern Africa, Western Indian Ocean Islands and South Asia. Since the Indian Ocean tsunami in 2004 the programme also covers the Andaman Sea, and from 2007 has started work in the Red Sea. CORDIO started in 1999 as a regional network with coordination nodes in Sweden, Kenya, Sri Lanka and Seychelles. From 2006 CORDIO East Africa took over as the main coordination node, and now hosts the overall CORDIO programme.
CORDIO East Africa was registered in 2003 in Kenya as a not-for-profit research organisation

The problem that CORDIO was founded to address is as follows:

The challenges faced by developing countries in the 2010s dwarf those of previous decades as the footprint of the world's population exceeds the size of the planet. Global climate change is one of the most pressing illustrations of this, signalled clearly by degrading coral reefs. Challenges facing the marine environment can be summarized into three broad areas:
Biophysical challenges – habitat fragmentation, loss of species and reduced productivity;
Social challenges – overpopulation and high consumption, poverty, lack of alternatives, low awareness and poor governance;
Contextual drivers – low technical capacity, synergistic problems, globalization and perverse economic and political incentives.

In 2010 CORDIO East Africa developed a new Strategic Plan, updating CORDIO's mandate to the next decade. [26] Its goals are to:

- conduct research on coastal and ocean ecosystems relevant to conserving, sustaining and restoring healthy and productive marine environments;
- strengthen social and economic assessment and research to support Integrated Coastal Management, poverty alleviation and sustainable development;
- foster integration of science, practice and policy at local, national and regional levels;
- educate and build the capacity of coastal people to improve their livelihoods and long term well-being;
- build human and technical capacity, and foster networking and partnerships, to achieve our objectives.

[25] See http://www.cordioea.org/main/
[26] To view the 2010-14 Strategic Plan http://www.cordioea.org/storage/admin-and-company-files/SP-CORDIO%20EA%202010-2014.pdf

PROJECTS

WIO-LAB

An ecosystems approach to manage marine and coastal resources addresses the interconnectedness between land-based activities, fresh water systems and coastal and marine environments. The approach recognizes the effect of the environment on the resource being exploited and the effect of resource exploitation on the environment. This approach ensures that there is a balance between sustainable use and the fair and equitable sharing of the benefits arising out of the utilization of marine and coastal resources over time.[27]

The two major ecosystems in the Western Indian Ocean (WIO) region, i.e. the Agulhas and Somalia Current Large Marine Ecosystems (LMEs), contain important critical habitats such as sea grass beds, coral reefs and mangrove forests. These habitats are areas of high diversity and are critical fish spawning and nursery areas that provide other vital ecological services, such as shoreline shelter from ocean swells.

The Global Environment Facility (GEF), with the support of the Contracting Parties to the Nairobi Convention and their development partners, have embraced the ecosystems approach and are investing over $78 million, between 2004 and 2012, to support LME projects in the Western Indian Ocean.

The three main projects are:

a. The South West Indian Ocean Fisheries Project (SWIOPF; Budget- $35.67 million), implemented by The World Bank;
b. The Agulhas and Somalia Current Large Marine Ecosystem project (Budget - $31.186 million), implemented by UNDP;
c. Project addressing land-based activities in the Western Indian Ocean (WIO-LaB; Budget-,$11.413 million implemented by UNEP.

The WIO-LaB project, which was executed by the Nairobi Convention Secretariat officially came to a close on 30 June, 2010. [28]The broad goal of the Project "Addressing land-based Activities in the Western Indian Ocean **(**WIO-LaB**)"** was to address the degradation of the marine and coastal environment due to land-based activities in countries bordering the Western Indian Ocean (WIO). It demonstrated to countries in the WIO region, the various sustainable approaches for tackling the degradation of the marine and coastal environment due to land-based activities.

The Project was executed within the framework of the Nairobi Convention for Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region covering 10 States of Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and Republic of South Africa. It created a strong partnership between the countries of the Western Indian Ocean (WIO) Region, the

[27] http://www.unep.org/NairobiConvention/The_Convention/index.asp
[28] http://wiolab.org/

Norwegian government, United Nations Environmental Programme (UNEP), and the Global Environmental Facility (GEF).

Project Outcomes:

1) Improved the knowledge base, and established regional guidelines for the reduction of stress to the marine and coastal ecosystem by improving water and sediment quality;

2) Strengthened the regional legal basis for preventing land-based sources of pollution*;* and

3) Developed regional capacity and strengthened institutions for sustainable, less polluting development.

Project Achievements

1) Development and finalization of two major products mainly;

- Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (LBSA Protocol) which was adopted on adopted on 31 March, 2010;
- The Strategic Action Programme (SAP) for the Protection of the Western Indian Ocean from Land-Based Sources and Activities which was endorsed on 31 March, 2010.

2) Demonstration Projects

A key part of the WIO-LaB Project was to provide assistance to participating countries to implement demonstration projects at a number of hotspots and sensitive areas in the WIO region. These projects were intended to demonstrate innovative, appropriate and cost-effective technical and managerial approaches for addressing the impacts of land-based sources and activities. The demonstrated projects

Other WIO-LaB achievements included;

- Development of the Nairobi Convention Clearinghouse and Information Sharing System; and
- Production of technical reports for example; the Regional Marine Litter Assessment.

ReCoMap

ReCoMaP is a regional programme for the sustainable management of the coastal zones of the countries of the Indian Ocean. [29] It is an initiative of the Indian Ocean Commission, funded by the European Union for a total of €18 million. The Programme started in August 2006 and is scheduled to end in 2011. It involves seven focus countries of the region, namely the Comoros, Madagascar, Mauritius, Kenya, the Seychelles, Somalia and Tanzania.

Sustainable Management of Coastal Resources and the Environment

This aspect of ReCoMaP's programme involves a very diverse range of activities and is the second largest result area in terms of funding (after the CFP result area). At the level of information provision, ReCoMaP supports WIO governments as well as international and local NGOs and CBOs in activities that will improve the collection and analysis of data. These data will contribute to understanding the status of marine ecosystems and on the nature of the interactions between resource users. The programme also provides financial and technical support to the implementation of coastal resource management initiatives.

ReCoMaP is also supporting the provision and dissemination of a range of tools, including GIS, for the monitoring, assessment and management of coastal resources and resource users. ReCoMaP has also initiated activities related to reducing the direct physical impacts of urban and tourism development on the coastal environment. More specifically, the programme is supporting activities to ameliorate the worst impacts of coastal erosion and poor waste management.

A substantial proportion of the total Result 1 budget has been ear-marked for support to the improved management effectiveness of Marine Protected Areas (MPAs). ReCoMaP is delivering this support through a competitive grants for individual projects valued up to Euro75,000 and through support to regional-scale training and certification opportunities for MPA practitioners.

Many thousands of coastal communities in the WIO are dependent on coastal resources for their livelihoods. No ICZM programme could be complete without providing opportunities for the diversification of livelihoods. ReCoMaP provides direct support to both government and non-state actors (through the Call for Proposals) to develop sustainable mariculture and sustainable coastal tourism projects.

Current Activities related to Multilateral Environmental Agreements

ReCoMaP is a regional ICZM programme. As such, its support to Multilateral Environmental Agreement (MEA) activities does as well have a special regional focus towards enhancing regional MEA coordination and cooperation mechanisms between the Western Indian Ocean Countries. ReCoMaP supports capacity building and skills development in MEA negotiations and improved reporting on national MEA implementation with a special emphasis on regional coordination and cooperation.

[29] http://recomap-io.org/?id=80

An ICZM Protocol to the Nairobi Convention

Over the past ten years, the states of the Western Indian Ocean have brought forward the need for a specific Multilateral Agreement on Integrated Coastal Zone Management several times. In response, and as a first step, ReCoMaP conducted an Assessment of the Feasibility of an ICZM Protocol to the Nairobi Convention (Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related protocols, 1985). The assessment came to positive conclusions, both regarding an ICZM Protocol and the future establishing of a Regional ICZM Policy Platform in the WIO. Specific references were also drawn from the development process of the ICZM Protocol to the Barcelona Convention (2008) in the Mediterranean Region (2009). ReCoMaP coordinates and cooperates with the United Nations Global Environment Fund (GEF), the United Nations Environment Programme (UNEP) and the Nairobi Convention Secretariat in this important regional development.

The countries of the Western Indian Ocean decided during the 1st Conference of National ICZM Committees in the WIO Region, which was organised by ReCoMaP in Mach 2010, to endorse a decision to enter into a drafting process of an ICZM Protocol to the 6th Conference of the Parties (COP6) of the Nairobi Convention. This COP6 was held in Nairobi, Kenya, between the 29th March and 1st April 2010.

Mauritius introduced the draft decision on the regional ICZM protocol for consideration by Parties to the Nairobi Convention. The draft decision was submitted to the Secretariat of the Nairobi Convention by Mauritius during the preparatory meeting of the Conference of Plenipotentiaries and the Sixth Meeting of Contracting Parties to the Nairobi Convention. The draft decision was unanimously approved by the technical committee on the 31st March 2010, and formally adopted as Decision CP6/3 of the Sixth Conference of Contracting Parties (COP) to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (the Nairobi Convention).

Decision text:

Decision CP 6/3: Strengthening Integrated Coastal Zone Management in the Western Indian Ocean Region

1. To endorse and support the use of the integrated coastal zone management approach for the long-term sustainable development of the coastal and marine areas of the Western Indian Ocean Region;
2. To request the Secretariat to promote and strengthen the application of ICZM tools, and in this regard work in collaboration with Indian Ocean Commission (IOC) and other partners;
3. To develop an ICZM protocol and request the Nairobi Convention Secretariat to support the development of such an ICZM Protocol, through a consultative process and in partnership with relevant regional and international organizations and programmes/projects, for consideration at the next COP.

For the next two years, ReCoMaP decided to support the Western Indian Ocean Countries and the Nairobi Convention Secretariat during the drafting and negotiation process of the

ICZM Protocol. ReCoMaP has commenced specific support to the related Regional Working Group (RWG) composed of official delegates from the countries. The programme also supports the establishing and operationalising of special National Working Groups (NWG) attached to the National ICZM Committees in all Countries. These NWGs have an advisory and support role to the national representatives in the RWG. ReCoMaP also supports the activities of the Nairobi Convention Secretariat and specifically a Lead Regional Legal Consultant at the administrative centre of the drafting g and negotiation process.

Multilateral Environmental Agreements (MEA)

In relation to MEAs, ReCoM has supported Reporting on MEAs and on Improvement of Negotiation Skills for MEAs in the Western Indian Ocean Countries. Today there are over 500 Multilateral Environmental Agreements and other international treaties related to the environment, of which over 320 are regional. In 1972, the year of the Stockholm Conference, 60% of the current MEAs were drafted. Since 1972, there has been an accelerated increase in MEAs with more than 300 agreements negotiated and others waiting to be finalized.

Numerous MEAs have been adopted, signed and ratified also by the Western Indian Ocean Countries. Out of these MEAs, many have or should have an indirect or direct impact on Integrated Coastal Zone Management or sector specific coastal management. MEAs are setting standards and define goals and limitations to be applied in national and local coastal environmental management, coastal resources management, coastal zone development and coastal environmental conservation.

MEAs adopted after 1972 generally have the following institutional elements:

- Conference of the Parties (COP)
- Secretariat
- Advisory Bodies
- Clearing-house Mechanism and
- Financial Mechanism

The Conference of the Parties (COP) of each convention or the Meeting of the Parties (MOP) of a protocol to a convention are the ultimate decision-making bodies regarding the overall implementation and development of their respective MEA, including the programme of work, budget and the revision of annexes, where applicable. Several MEAs have clearing-house mechanisms established, generally operated by the secretariats, to promote and facilitate technical and scientific cooperation or facilitate the exchange of scientific, technical, environmental and legal information and assist developing country Parties in the implementation of the MEA concerned.

According th the ReCoMap Websitie [30]MEAs relevant for Integrated Coastal Zone Management, which have been signed by most Western Indian Ocean Countries, can be found in the list below.

Marine related

- Convention on the High Seas, 1958
- Convention on Wetlands of International importance especially as Waterfowl Habitat (RAMSAR 1971), 2001
- 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 for the Regulation of Whaling, 1996 **(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
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND), 1971 Protocol amending the (FUND- PROT), 1976
- Convention for the Safety of Life at Sea (SOLAS), 1974
- Convention on the International Regulations for Preventing Collisions at Sea, 1972
- Convention on Load Lines, 1966
- Convention on Standards of Training and Certification of Watch Keepers (STCW), 1978
- 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

[30] http://recomap-io.org/?id=6

- Bonn Convention on Migratory Species (CMS), 1994:

  1. African-Eurasian Waterbird 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)

- Cartagena Protocol on Biosafety, 2003

- International Plant Protection Convention, 1971
- Revised text on International Plant Protection Convention, 1990

Atmosphere related

- United Nations Framework Convention on Climate Change (UNFCCC), 1992 UNFCCC Protocol, Kyoto, 1997
- Vienna Convention for the Protection of the Ozone Layer, 1985 Montreal Protocol on substances that deplete the Ozone, 1987 Amendment to the Montreal Protocol (London), 1990 Amendment to the Montreal Protocol (Copenhagen), 1992 Amendment to the Montreal Protocol (Montreal), 1997 Amendment to the Montreal Protocol (Beijing), 1999
- African Nuclear Weapons Free Zone Treaty, 1996

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

Other Agreements

- New Economic Partnership for Africa's Development (NEPAD), 2001
- Agenda 21 and Johannesburg Plan of Implementation, 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

Others

- Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, 1963
- Convention for the Protection of the World Cultural and Natural Heritage, 1972
- Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques, 1977

EAF-Nansen Project

The EAF-Nansen Project "Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries"[31] is an initiative to support the implementation of the ecosystem approach in the management of marine fisheries. The aim is to promote sustainable utilization of marine living resources and improved protection of the marine environment.[32]

Notionally, the project started in December 2006 but substantively from early 2008 and has a five-year time frame. The project is executed by FAO in close collaboration with the Institute of Marine Research (IMR) of Bergen, Norway and funded by the Norwegian Agency for Development Cooperation (Norad).

The EAF-Nansen Project is set to strengthen regional and country specific efforts to reduce poverty and create conditions to assist in the achievement of food security through development of sustainable fisheries management regimes and specifically through the application of the ecosystem approach to fisheries in a number of developing countries. The initial focus of the project is on Sub-Saharan Africa.

The project is a means to achieve the Millennium Development Goal (MDG) related to eradication of poverty and hunger while simultaneously ensuring environmental sustainability.

IUCN GEF Seamounts Project

The overall objective of the Seamounts Project is to develop ecosystem-based approaches to fisheries management for areas of significant biological and commercial importance (i.e. seamounts) located in areas beyond national jurisdiction, the high seas.[33]

The Objectives of the Project are to

1. Improve scientific understanding and capacity for monitoring, assessment and analysis of high seas biodiversity and fisheries around seamounts

[31] GCP/INT/003/NOR
[32] http://www.eaf-nansen.org/nansen/en
[33] http://www.iucn.org/about/work/programmes/marine/marine_our_work/marine_governance/seamounts/about_/objectives/

2. Enhance governance frameworks for high seas resources conservation and management
3. Identify options for conservation and management measures applicable to high seas areas in the southern Indian Ocean
4. Learning, awareness raising and knowledge sharing

1. Improve scientific understanding and capacity for monitoring, assessment and analysis of high seas biodiversity and fisheries around seamounts

The project aims to enhance the knowledge base necessary to develop effective conservation and management options for high seas biodiversity.

Two research expeditions of 40 days each will study five selected seamounts in the southern Indian Ocean. The first cruise will focus on the pelagic ecosystem, fishery resources and oceanography, and the second cruise on benthic ecosystems. They will help answer key scientific questions, including:

- What is driving the seamount ecosystems and fisheries?
- How diverse are seamount fishes, crustaceans and other invertebrates?
- What are the benthic communities of the studied seamounts like?
- Are the predictions of coral diversity based on global modelling studies accurate?
- What are the impacts of past and current deep-sea fishing activities?
- Do the benthic protected areas make a significant contribution to conservation of vulnerable seabed communities and do they benefit fishing?

The scientific expeditions, planned for the end of 2009 and 2011 respectively, will comprise a multidisciplinary team of international scientists, paired with experts from the region. This will provide opportunities for capacity building, as well as expanding the global network of scientists interested in oceanography and deep-sea applied research and conservation.

The major partners on this research cruise are IOZ/ZSL, FAO and its EAF-Nansen project, the ASCLME Project, ACEP, IMR and SIODFA. The work is funded by the Global Environment Facility, The Natural Environment Research Council, UK, and the FAO.

2. Enhance governance frameworks for high seas resources conservation and management

In order to support the enhancement of the governance and regulatory framework for the conservation and management of high seas marine biodiversity of the southern Indian Ocean, the project will:

- Develop an institutional and legal gap analysis for the Indian Ocean
- Develop a comprehensive list of possible options for the improvement and strengthening of the legaland institutional framework to achieve sustainable fisheries and biodiversity conservation
- Closely follow developments at international and regional fora and feed project results into them
- Liaise with key governments and international, regional and technical entities and networks to maximize cooperation and coordination

The ASCLME Project, which also addresses high seas governance in areas that fall within the Large Marine Ecosystem boundaries but fall outside of national jurisdictions, is an important partner. Cooperation and liaison with relevant entities, such as FAO, the South West Indian Ocean Fisheries Commission (SWIOFC), the Indian Ocean Commission, the Indian Ocean Tuna Commission, etc. will be actively sought as well as SIOFA if and when it comes into existence.

3. Identify options for conservation and management measures applicable to high seas areas in the southern Indian Ocean

The proposed project will facilitate the identification and assessment of various options for conserving and sustainably managing deep-sea fishery resources and marine biodiversity. In particular, the project seeks to:

- Identify conservation and management options based on a precautionary and ecosystem approaches applicable to areas in the high seas of the southern Indian Ocean
- Identify options for managing deep-sea fisheries to prevent significant adverse impacts to vulnerable marine ecosystems and ecologically and biological significant areas
- Identify appropriate monitoring, control and surveillance systems to ensure effective enforcement of, and compliance with, conservation and management plans
- Develop a model management framework for high seas biodiversity and important high seas areas in the southern Indian Ocean
- Identify threats from activities other than fisheries - such as maritime traffic or mining - that may negatively impact marine resources, and cumulate stress factors

The project will work in close collaboration with the fishing industry, to ensure feasibility and cost-effectiveness of measures, and encourage maximum buy-in and future compliance. It also seeks to provide a model that can be applied to other ocean areas, be expanded to a basin-wide scale, or include industries other than fishing.

4. Learning, awareness raising and knowledge sharing

The project will contribute greatly to global knowledge of seamount ecosystems and provide a concrete example of how remote oceanic ecosystems could be sustainably managed, in coordination with the fishing industry. To this end, the project will:

- Regularly exchange project findings and information of mutual interest with other projects and entities concerned with the southern Indian Ocean and high seas resources, to ensure results and learning are shared as widely as possible and benefit from the experience of others
- Widely publicise project findings and results to raise awareness of the importance of deep-sea biodiversity and highlight new discoveries for the attention of decision-makers, the private sector, scientific institutions and the wider public
- Disseminate project results at international, regional and technical fora and feed outcomes and developments of policy-making processes into the project implementation

The project has already established cooperation and collaboration mechanisms with several entities and projects, including the ASCLME Project, ACEP and the Western Indian Ocean Marine Science Association (WIOMSA).

South West Indian Ocean Fisheries Project (SWIOFP) GEF/World Bank

The South West Indian Ocean Fisheries Project (SWIOFP) is a multinational research project which aims to improve the understanding and management of marine resources in the southwest Indian Ocean. [34] It involves nine countries, including Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and Tanzania. Through SWIOFP, these countries have developed a collaborative project that embraces their own fishery-related needs and expectations in a regional and transboundary context. Together with the ASCLME project and the WIO-LaB project - which addresses land-based marine pollution - SWIOPF is one of a trio of linked projects that is set to provide an overall transboundary diagnostic analysis (TDA) and associated Strategic Action Programme (SAP) for the Agulhas and Somali Current Large Marine Ecosystems. SWIOFP is implemented by the World Bank

The Southwest Indian Ocean Fisheries project (SWIOFP) is financed by a US$12 million grant from the Global Environment Facility (GEF) which was endorsed by the GEF Council on April 5, 2007.[35] The project is designed to help promote sustainable use of fish resources through adoption by the Southwest Indian Ocean-riparian countries of a large marine ecosystem (LME)-based ecosystem approach to fisheries management in the Agulhas and Somali LMEs that recognizes the importance of preserving biodiversity.

The SWIOFP aims to generate scientific knowledge and develop the core legal and institutional capacity needed to implement an action plan in order to manage these fisheries for maximum economic returns, consistent with a management strategy that stresses environmental sustainability and socially equitable distribution of the benefits of exploitation.

The Southwest Indian Ocean Fisheries project focuses on the following components:

- *Data gap analysis, data archiving and information technology* to help establish a regional data management system for the participating and observer countries in the SWIOFP.

- *Assessment and sustainable utilization of crustaceans* aims to undertake an assessment of the stock dynamics of shallow and deep water crustaceans and their fisheries.

- *Assessment and sustainable utilization of demersal fishes* will support assessment of the stock dynamics of demersal species and their fisheries.

- *Assessment and sustainable utilization of pelagic fish* will assess the stock dynamics of large, small and mesopelagic species and develop strategies to optimize small and large scale pelagic fisheries, including fish aggregating devices.

[34] http://asclme.org/swiofp.html

[35] http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:21392082~menuPK:3325337~pagePK:34370~piPK:34424~theSitePK:4607,00.html

- *Mainstreaming biodiversity in national and regional fisheries management* will include specific activities that lead to an understanding of the overall relationships between fisheries and biodiversity processes and species diversity and how these relationships can be managed at the national and regional levels.

- *Strengthening regional and national fisheries management* will support the emerging regional fisheries management framework in the SWIO and build capacity in regional and national fisheries management bodies. It will also assist with the regional harmonization of national fisheries regulations.

The SWIOFP is being implemented in close collaboration with the ASCLME Project. They co-locate Steering Committee and other meetings and have agreed to develop a unified Transboundary Diagnostic Analysis (TDA) and Strategic Action Plan (SAP). Because of initial implementation delays, including in appointing the Project Director, the project implementation period has been extended by some 18 months. In order to ensure effective co-ordination in the development of joint projects outputs, the ASCLME will use the extra period to deepen the analyses that it has undertaken for its own component of the TDA – in close collaboration with the SWIOFP team.

Strategic Partnership for a Sustainable Fisheries Investment Fund in Sub-Saharan Africa. GEF/World Bank

The Strategic Partnership for Sustainable Fisheries in Africa is a World Bank/GEF initiative that aims at addressing fish stock depletion due to overexploitation of fisheries in Africa. [36]It comprises the Sub-Saharan coastal states, led by the African Union, with the support of FAO and WWF, and the inclusion of the regional fisheries management commissions and the GEF-supported Large Marine Ecosystem (LME) projects. In November 2005, the GEF Council approved a contribution of US$ 60 million over the next 10 years in three tranches, for the Sustainable Fisheries Investment Fund. The funding mechanism is a GEF Sustainable Fisheries Investment Fund available to provide a total of US$ 60 million in GEF Grants to co-finance country level projects for sustainable fisheries, so long as they leverage other donor funds at a ratio of 3:1 (i.e. 1 part GEF to 3 parts other funding) for the purposes of promoting sustainable fisheries. Along with the World Bank financing and financing provided by any other interested donors, this Fund is available to co-finance country-level projects aimed at assisting Sub-Saharan African countries to meet the fisheries and poverty reduction targets set by the 2002 World Summit on Sustainable Development. and achieve sustainability in their marine fisheries. The operations aim to strengthen regional cooperation and assist countries in building the capacity of public institutions, community associations and civil society to ensure good governance and sustainable management of fish stocks and supporting ecosystems.

The Fund is advised by a Strategic Partnership of government representatives and stakeholders from African countries, donors, technical agencies and regional and international partner organizations. Furthermore, this Strategic Partnership aims to promote learning exchanges and sub-regional cooperation between various country-level projects supported by the Fund and other donor partners.

Using a preparation grant from the GEF, the Food and Agriculture Organization of the United Nations (FAO) and the World Wildlife Fund (WWF) worked together with the World Bank to organize a series of consultations with Sub-Saharan African countries and their experts to design the initiative. An expert panel was also convened in Nairobi in late 2004 to help develop draft criteria for the types of projects that could be eligible for funding under such a Strategic Partnership mechanism, and to draft monitoring and evaluation indicators for such projects based on the objectives of the Strategic Partnership and the WSSD - poverty reduction and fisheries targets. Two broad-based workshops were convened in Dakar (January 2005) and Dar-es-Salaam (June 2005). These workshops reviewed and recommended upon the project criteria and indicators and also on the governance mechanism for the Strategic Partnership.

The governance of the Strategic Partnership was agreed in June 2005 in Dar-es-Salaam, following the engagement of the African Union in the Partnership and extensive technical and policy consultation among the partners including most Sub-Saharan coastal states, FAO, WWF, the World Bank and managers of the LME projects. The Partnership is guided by a

36 http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/EXTPARTNERSHIPS/0,,contentMDK:21748610~pagePK:64168445~piPK:64168309~theSitePK:4099373,00.html

Regional Advisory Committee (RAC) which will: review project concept notes and ideas; ensure coherence and synergies between projects and activities and promote good governance; raise awareness of the importance of sustainable fisheries in national development policies and plans; and assist countries in the mobilization of co-funding. The Regional Advisory Committee will be chaired by the African Union and include representation from the Regional Fisheries Bodies, civil society, FAO and WWF. Donors (such as the World Bank and GEF) and the Large Marine
Ecosystem programs in the region will also participate as observers. The Secretariat will be established in the AU, while FAO and WWF will provide support.

Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project. GEF/World Bank. [37]

This USD 11 million project funded by the Global Environment Facility and implemented by the World Bank started in 2007.[38] The project's global environmental goals in the medium to long-term are to reduce the risk of ship-based environmental contamination (such as oil spills from groundings and illegal discharges of ballast and bilge waters) and to strengthen the capacity of countries to respond to oil or chemical spill emergencies in the region. [39]

The project has three specific global environmental objectives.

- The first is to ascertain the economic, technical, and institutional feasibility of introducing modern aids to navigation systems in the region, such as an electronically supported marine highway, to guide ships through sensitive areas and to encourage monitoring of the movements and activities of fishing and other vessels operating within countries' territorial waters.
- The second objective is to support widening the existing regional agreement (June 5, 1998) on port state control and implementation of its provisions.
- The third objective, focusing on Kenya, Mozambique, South Africa, and Tanzania, is to reduce risks of environmental damage to beaches, fishing grounds, and other domestic resources from spills of oil and chemicals. This will be achieved by supporting efforts of Kenya, Mozambique, South Africa, and Tanzania to become part of a regional oil spill response plan, by completing the identification and mapping of environmentally sensitive areas along coasts and sea lanes, and support regional collaboration with the west Indian Ocean island states.

To achieve these objectives the project had the following components:

Development of a regional marine highway and institutions will support the establishment of a network of electronic navigational charts incorporating information on environmental assets in conjunction with the global positioning system and other maritime technologies. A marine highway is a physically-defined navigation route, providing a safe and secure navigation channel supported by continuously updated nautical charts, maritime safety information, real-time navigation aids, and other information systems (weather updates, traffic management, access to ports, and the like). It allows ships to optimize operational safety and sailing

[37] Project No 078643
[38] Became effective 21 September 2007. Original closing date was 30 June 2010 – extended to December 2012.
[39] Report No: ISR180 at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2010/12/08/6217BEA3936A047B852577F3005CF5CC/1_0/Rendered/PDF/P0786430ISR0Di020820101291827322539.pdf

efficiency.

Capacity building for prevention of coastal and marine contamination aims to support seminars and workshops on environmental sensitivity mapping, issues related to implementation of conventions, marine navigation safety, prevention of marine and coastal pollution, risk assessment and development of appropriate response strategies and related matters. It will also support the creation of site-specific pollution prevention and contingency management plans for coastal and marine hotspots, and develop a methodology to identify and assign values to the key environmental resources in the region. It will support the development of a regional database and a geographic information system on the marine environment, marine and coastal resources, ship movements, ship waste, and sea-based activities.

Building capacity for regional oil spill response will build capacity to implement the provisions of the conventions, develop national oil and chemical spill contingency plans, assess the needs and provide specifications for the required equipments and facilitate regional agreements. It will help develop a regional contingency plan and establish a regional center to coordinate national actions and to monitor region-wide environmental conditions and causes of degradation and damage.

Port state control, fisheries monitoring will allow countries to require that ships entering their ports meet the requirements of the major conventions of the International Maritime Organization (IMO) on the safety of navigation and the prevention of pollution. This will also help to make the operations of illegal, unreported and unregulated fishing fleets unprofitable by eliminating opportunities to land and sell fish that have been harvested in violation of the law. A regional port state control arrangement will provide an effective tool to ensure that ships using international navigation routes and calling on major ports in a region comply with the rules and standards set out in the applicable IMO conventions.

Resources were originally allocated as follows: Development of a regional marine highway and institutions $6.00 million; Capacity building for prevention of coastal and marine contamination $1.10million; Building a regional oil spill response capacity $0.70 million and Port state control, fisheries monitoring, and project coordination and management $3.30 million.

Implementation as of 2011 was reported by the World Bank in the following terms:
Project implementation continues to be satisfactory. Development objectives of the Grant are being met in accordance with the project objectives. Disbursements are increasing and are slightly above the revised trajectory reflecting contracts under implementation with M/s SHOM, BRLi/OTRA and IHWC which are well advanced (over 80% execution). A Mid Term Review (MTR) was carried out in November 2010 which reviewed in detail the implementation and sustainability arrangements. An extension of Closing Date by 18 months until Dec. 2012 was agreed, increased emphasis is being made on sustainable arrangements that will last beyond Project period as well as improving dissemination of results to all participating countries. While much progress is being made in 5 of the participating States, the MTR raised its concern regarding the sustainability of the Project in two coastal countries including Kenya and Tanzania. Project staff have carried meetings with the 2 focal points in these countries

and efforts are being stepped up to find ways to increase the commitment in the 2 countries. A reallocation of Grant proceeds was agreed to increase the rate of disbursements; the request is being processed by GoSA to forward to the Bank for consideration. A grant was received from the European Space Agency (ESA) to develop two important earth observation products for the Mozambique Channel in support of Project activities including: (i) oil spill detection in real time, and (ii) coral reef monitoring. Working meetings on the earth observation products between ESA, contractors CLS and IRD, and Project Staff and Focal Points took place in April (Washington, DC) and May (Video conference connecting Mauritius, Reunion, South Africa, Netherlands and France).[40]

Project on the Implementation of a Regional Fisheries Strategy (RSA/007/09)

Based on a financing agreement between the European Commission as Manager of the 10th European Development Fund and the Indian Ocean Commission (IOC) this is a 21 Million Euro Project designed to last over 5 years (66 months).

The rationale for the project is that fact that economic performance in the ESA-IO region has shown some marked improvement but GDP per capita in the region is still low at US$456 in 2006 and US$ 564 in 2007. Similarly there are big disparities between the middle income countries such as Seychelles and Mauritius (with per capita GDP exceeding US$5500) while Comoros and Madagascar have GDP per capita of US$600 and $350 respectively.

The project is based on the assumption that fisheries is a key economic sector and contributes significantly to the ESA-IO economies and that the potential for fisheries in the region is much higher than is currently realized. *Action is imperative while addressing the*

[40] Africa - GEF-Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention : - Implementation Status Results Report : (English) 2011/06/01, P078643

Available at http://web.worldbank.org/external/projects/main?pagePK=7593653&piPK=7321312&theSitePK=40941&projid=P078643&docTY=791001

sustainability aspects. [41] the 2009 IOC had endorsed a Fisheries strategy and specific "fisheries chapters" were endorsed within the context of the Economic Partnership (EPA) negotiations, the respective Ministerial Councils of the Easter and Southern Africa (ESA), the SADC and the EAC.[42] It is also in line with the SADC/COMESA/EAC Tripartite Summit decision for strengthening regional integration and the 1st ACP Fisheries Ministers resolution of 4 June 2009.

The programme is designed to address the following:

a. Inadequate knowledge of the state of key resources coastal and transboundary shark and billfish and the need to improve data collection systems for all species;
b. The regions inability to implement management and control strategies that will prevent IUU fishing;
c. The regions vulnerability in maintaining processing and employment as a result of the erosion of a competitive advantage guaranteed by ACP preference status;
d. The need to strengthen the indigenous fisheries and aquaculture sectors effective pursuit of potentially strong commercial opportunities to increase the added value of its catches and their activities;
e. The need to ensure regional fisheries food security.

The Programme has two phases. Phase I will focus on governance in the context of regional institutional strengthening in fisheries management, MCS and fisheries safety/rules of origin issues.

Phase II will be an extension of Phase I , thus ensuring the long term creation of sustainable regional governance but also focusing on trade and sectoral development issues within the ESA region, first using tuna as a pilot. Trade and development issues will also be extended to include inland fisheries and aquaculture. This latter will be in partnership with the World Bank Profish, FAO SPADA and FAO SWIOFC with possible support funding derived from NEPAD. The funding allocated to Phase I is circa 21 million Euros, Phase II will be 14 million Euros.

The Project aims to achieve four results:

1. An Action Plan is prepared for fisheries management and development for the ESA-IO region.
2. A governance framework for sustainable regional marine fisheries management and development is initiated.
3. An effective MCS for transboundary fisheries resources in the ESA-IO region is developed.
4. A regional trade strategy (including a regional fisheries food security strategy) is produced to ensure access of fish and fisheries products to domestic, regional and export markets.

[41] Financing Agreement, Page 2 para 1.2
[42] Op. cit., Set out in Appendix 6

Governance

Programmed activities to be implemented by a Programme Management Unit based at IOC HQ in Mauritius:

Project Steering Committee

Representative of regional Authorizing Office (Chair)
Representative of Head of EU Delegation
Representative of each COMESA, SADC EAC and IGAD
Representative of the international organization responsible for the implementation of
Representative of IRCC Secretariat
Representatives of relevant Partners (each of SWIOFC, IOTC etc. (Technical Advisory team will also participate and act as non-voting members)

Project initiation was beginning of 2011. No results are available as yet.

Regional Economic and Political Agreements

African Union

The African Union is a union consisting of 53 African states, including all the ASCLME states. Established on 9 July 2002, the AU was formed as a successor to the Organization of African Unity (OAU). The most important decisions of the AU are made by the Assembly of the African Union, a semi-annual meeting of the heads of state and government of its member states. The AU's secretariat, the African Union Commission, is based in Addis Ababa, Ethiopia.The African Union seeks to increase development, combat poverty and corruption, and end Africa's many conflicts.

An important aspect of the organizational structure is the Specialized Technical Committees that are bodies in the African Union responsible to the Executive Council. They include:

- The Specialized Technical Committee on Rural Economy and Agricultural Matters.
- The Specialized Technical Committee on Monetary and Financial Affairs.
- The Specialized Technical Committee on Trade, Customs and Immigration Matters.
- The Specialized Technical Committee on Industry, Science and Technology, Energy, Natural Resources and Environment.
- The Specialized Technical Committee on Transport, Communications and Tourism.
- The Specialized Technical Committee on Health, Labor and Social Affairs.
- The Specialized Technical Committee on Education, Culture and Human Resources.

Functions of the Specialized Technical Committees

- Prepare projects and programs then submit them to the Executive Council.
- Ensure the supervision, follow-up and the evaluation of the implementation of decisions taken by the organs of the Union.
- Make sure the coordination of projects of the Union run smoothly.
- Submit to the Executive Council either on its own initiative or at the request of the Executive Council, reports and recommendations on the implementation of the provisions of this Act.
- Carry out any other functions assigned to it for the purpose of ensuring the implementation of the provisions of this Act.

Strategic Partnership for a Sustainable Fisheries Investment Fund in Sub-Saharan Africa.
This partnership is dealt with in detail above. Until the 2005 Abuja *FishforAll* Conference, the AU had no presence in Fisheries issues, however it is now provides co-ordination for the GEF/World Bank Project. It is now implemented in coordination with the NEPAD Partnership for African Fisheries.[43]

[43] See presentation by the Task Team Leader John Virdin at www.Worldbank.org

The Common Market for Eastern and Southern Africa (COMESA),

COMESA is a preferential trading area with nineteen member states stretching from Libya to Zimbabwe. COMESA 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 and the Comoros and Libya in 2006. COMESA is one of the pillars of the African Economic Community. 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). It has 20 member states which cover a land area of nearly 13 million square kilometres and have total populations of some 406 million, with a combine GPD of US$735,599 million.

Members are: Burundi (21 Dec 1981); Comoros (21 Dec 1981); Democratic Republic of the Congo (21 Dec 1981); Djibouti (21 Dec 1981) ; Egypt (6 Jan 1999); Eritrea (1994) ; Ethiopia (21 Dec 1981) ; Kenya (21 Dec 1981); Libya (3 June 2005) (at the 10th Summit of COMESA); Madagascar (21 Dec 1981); Malawi (21 Dec 1981); Mauritius (21 Dec 1981) ; Rwanda (21 Dec 1981); Seychelles (2001); Sudan (21 Dec 1981); Swaziland (21 Dec 1981); Uganda (21 Dec 1981); Zambia (21 Dec 1981); Zimbabwe (21 Dec 1981).[44]

[44] Note that the following states have left COMESA – including two ASCLME Participants: Angola; Lesotho (quit in 1997); Mozambique (quit in 1997); Tanzania (quit on September 2, 2000); Namibia (quit on May 2, 2004)

The Southern African Development Community (SADC)

The Southern African Development Community (SADC) started as *Frontline States* whose objective was political liberation of Southern Africa. SADC was preceded by the Southern African Development Coordination Conference (SADCC), which was formed in Lusaka, Zambia on April 01, 1980 with the adoption of the Lusaka Declaration (Southern Africa: Towards Economic Liberation).

The formation of SADCC was the culmination of a long process of consultations by the leaders of the then only majority ruled countries of Southern Africa, thus Angola, Botswana, Lesotho, Mozambique, Swaziland, United Republic of Tanzania and Zambia, working together as Frontline States. In May 1979 consultations were held between Ministers of Foreign Affairs and Ministers responsible for Economic Development in Gaborone, Botswana. Subsequently a meeting was held in Arusha, Tanzania in July 1979 which led to the establishment of SADCC.

On August 17, 1992, at their Summit held in Windhoek, Namibia, the Heads of State and Government signed the SADC Treaty and Declaration that effectively transformed the Southern African Development Coordination Conference (SADCC) into the Southern African Development Community (SADC). The objective also shifted to include economic integration following the independence of the rest of the Southern African countries.

Currently SADC has a membership of 15 Member States, namely; Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, United Republic of Tanzania, Zambia and Zimbabwe.

Population size : 257, 726,000 (257.7 Million inhabitants)
Gross Domestic Product (GDP): 471,118 US$ million (471.1 US$ billion)

The SADC Mission is to promote sustainable and equitable economic growth and socio-economic development through efficient productive systems, deeper co-operation and integration, good governance, and durable peace and security, so that the region emerges as a competitive and effective player in international relations and the world economy.

The Regional Indicative Strategic Development Plan (RISDP) and the Strategic Indicative Plan for the Organ (SIPO) remain the frameworks for SADC Regional integration that provide SADC Member States with a consistent and comprehensive programme of long-term economic and social policies, and at the same time, it provides the SADC Secretariat and other SADC Institutions insights of SADC approved economic and social policies and priorities.

The RISDP reaffirms the commitment of SADC Member States to good political, economic and corporate governance entrenched in a culture of democracy, full participation by civil society, transparency and respect for the rule of law. In this context, the African Union's New Partnership for Africa's Development (NEPAD) is embraced as a credible and relevant Continental framework, and the RISDP as SADC's Regional expression and vehicle for

achieving the ideals contained therein. The RISDP emphasizes that good political, economic and corporate governance are prerequisites for sustainable socio-economic development, and that SADC's quest for poverty eradication and deeper integration levels will not be realized in the absence of good governance.

The East African Community (EAC)

The East African Community (EAC is the regional intergovernmental organization of the Republics of Kenya, Uganda, the United Republic of Tanzania, Republic of Rwanda and Republic of Burundi with its headquarters in Arusha, Tanzania.

Total Surface area of members States (incl. water): 1.82 million sq. km
Total Population (June 2010): 133.5 million
GDP: $74.5 billion

The EAC Protocol on Environment and Natural Resources Management

The EAC Protocol on Environment and Natural Resources Management was signed on 30 November 1999.

This is a very ambitious and comprehensive instrument which covers virtually all aspects of environmental and natural resource management and envisages a degree of legal and functional integration similar to the common environmental law of the Europe Union.

The Protocol sets out is objects as : The objectives of this Protocol shall be to: (a) promote sustainable growth and development of the Partner States through sustainable use and management of the environment and natural resources through prevention of activities that are detrimental to the environment and natural resources; (b) foster closer cooperation for judicious, sustainable and coordinated management, conservation, protection and utilization of the environment and natural resources and deepen integration and poverty alleviation;(c) promote capacity building and environmental awareness in environment and natural resources management; (d) promote shared responsibility and cooperation in the management of environment and natural resources including those that are transboundary in nature among Partner States; and (e) promote development and harmonization of policies, laws and strategies for environment and natural resources management to support sustainable development.

The Protocol envisages that the environmental laws of the EA Community will apply to all members states (except as expressly agreed) and will consist of: The relevant provisions of the EAC Treaty; the Protocol for sustainable development of Lake Victoria Basin; this Protocol and its annexes; the regulations and directives made by the Council; applicable decisions made by the Court; Acts of the Community enacted by the Legislative Assembly; and (g) relevant principles of international environmental law. This latter requirement seems to provide a means of automatic transmission of principles such as *ecosystem management* and *precaution* directly into EAC law.

In terms of comprehensive coverage Article 3 of the Protocol states that this a protocol of general application and shall apply to all activities, matters and areas of management of the

environment and natural resources of the Partner States, including the following which si a very comprehensive list that certainly covers all the concerns of the ASCLME :

(a) sustainable environment and natural resources management, (b) management of transboundary resources, (c) conservation of biological diversity, (d) management of forest and tree resources, (e) management of wildlife resources, (f) management of water resources, (g) management of wetland resources,(h) management of coastal and marine resources, (i) management of fisheries resources, (j) management and access to genetic resources, (k) management of mineral resources, (l) management of energy resources, (m) management of mountain ecosystems, (n) soil and land use management, (o) management of rangelands, (p) combating desertification and mitigating the effects of drought, (q) mitigating the effects of climate change, (r) protection of the ozone layer, (s) tourism development, (t) bio safety and biotechnology, (u) management of chemicals, (v) management of wastes and hazardous wastes, (w) pollution control and management, (x) environmental impact assessment and environmental audits, (y) environmental standards, (z) military and hostile activities, (aa) environmental education and capacity building, (bb) public participation, access to information and justice, and (cc) environmental disaster preparedness and management.

Management of Coastal and Marine Resources and Fisheries under the Protocol

Of specific interest to the ASCLME project are Articles 15 and 16 of the Protocol which provide respectively for the cooperative management of coastal and marine resources and of fisheries.

Article 15 provides that:

1. The Partner States shall develop and harmonise their policies, laws and strategies for the sustainable use of coastal and marine resources.
2. The Partner States shall co-operate to prevent and reduce pollution of the marine and coastal environment, ensure sound environmental management of the natural resources of the marine and coastal environment and adopt measures for monitoring, evaluation and control
3. The Partner States shall undertake, individually and collectively to adopt appropriate measures or guidelines in accordance with this Protocol in order to conserve and sustainably use coastal and marine resources.
4. The Partner States shall co-operate in scientific research, monitoring and exchange of data and other scientific information relating to the management of the marine and coastal environment. 5. The Partner States shall take all measures to: (a) prevent and reduce pollution caused by discharging and dumping of wastes from ships or man-made structures at sea; (b) prevent and reduce pollution from land based sources including discharges from rivers, estuaries, coastal establishments, other structures or any other sources within their territories; (c) prevent and reduce pollution caused by exploration and exploitation of the sea-bed and its sub soil; (d) protect and manage threatened and endangered species and manage alien invasive species; (e) protect cultural sites, historical monuments and

traditional practices and knowledge; and (f) protect and preserve rare or fragile ecosystems and habitats of rare, threatened or endangered wild fauna and flora.
6. The Partner States agree to establish specially protected areas and to regulate activities in the protected areas for purposes of conserving fragile marine ecosystems, rare and endangered species of the marine and coastal environment.

Article 16 provides
1. The Partner States shall develop and harmonise common policies, laws and strategies to promote the sound management and optimum utilization of the fisheries resources of the Community.
2. The Partner States shall develop strategies to increase and sustain fish production and marketing to contribute to poverty reduction in the Community.
3. The Partner States shall: (a) develop effective institutions and mechanisms for sustainable development and management of fisheries resources including promotion of community participation; (b) co-operate in carrying out stock assessment and monitoring of fisheries resources; (c) cooperate in the production and sharing of information on fisheries resource management including regular monitoring of fishing efforts, fish stocks, fish habitat and other socioeconomic factors of the fisheries resources; (d) put in place effective mechanisms for enforcement of fisheries related laws; (e) develop guidelines for the management of introduction of alien aquatic organisms and species; (f) take all necessary measures to regulate the capture of immature fish; (g) determine and promote use of appropriate fishing gear and fishing methods; (h) identify and protect critical habitats for fish survival in particular spawning, breeding and nursery sites and establish protected areas; (i) promote adherence to international fish quality standards; and (j) develop and promote aquaculture and cage culture.

B. Review of the Current Status of International Law/Agreements in relation to the Management and Governance of ABNJ in the Context of Developing an LME-Based Regional Governance Strategy

General Introduction and Global Context: the existing Legal and Institutional Regime in Areas beyond National Jurisdiction

This section sets out the outlines of the global regime governing areas beyond national jurisdiction by way of providing context to the situation in the western Indian Ocean. The following section itemises the various regimes that apply in the WIO region.

Under the 1982 UN Law of the Sea Convention, coastal states have jurisdiction over living and non-living resources from their coastal baselines out to 200 nautical miles in their Exclusive Economic Zones (EEZs) and over continental shelf resources out to the legal limit of their continental shelf. Beyond that point, the LOSC envisages the International Seabed Authority having jurisdiction, but only over the non-living resources of the seabed, what it terms 'solid, liquid or gaseous mineral resources.'[45] Hence, there is a *lacuna* in the Convention regime relating to management and conservation of deep-sea or seabed living resources and for exploration and exploitation activities unrelated to seabed mining.[46]

A number of sectoral activities in the high seas are governed by existing treaty regimes – such as the 1972 London Convention and its 1996 Protocol on ocean dumping under the auspices of the International Maritime Organization and associated treaties on shipping safety, security and pollution, and by a network – albeit by no means a comprehensive network - of species and regional fisheries treaties and arrangements as well as by some of the regional seas conventions. Scholars have worked systematically through the various regional and sectoral regimes to highlight further 'regulatory and governance' gaps.[47]

Regional Seas Conventions

More than 140 countries participate in thirteen Regional Seas programmes established under the auspices of UNEP regional seas programme covering Black Sea, Wider Caribbean, East Asian Seas, Eastern Africa, South Asian Seas, ROPME Sea Area, Mediterranean, North-East Pacific, North-West Pacific, Red Sea and Gulf of Aden, South-East Pacific, Pacific, and Western Africa. Six of these programmes, are directly administered by UNEP.[48] All of the Regional Seas programs have developed an Action Plan but most also have developed specific legal frameworks with Conventions and Protocols. No conventions have yet been developed for East Asian Seas, South Asian Seas, North West Pacific, North-East Pacific, or for the Arctic. In addition there are a number of 'partner programmes' of regional seas

[45] LOSC, art. 133(a).

[46] Although the LOSC does impose unequivocal obligations to "protect and preserve the marine environment" and to "protect and preserve rare or fragile species and ecosystems in all parts of the marine environment, as well as the habitat of depleted, threatened or endangered species and other forms of marine life." LOSC, supra note 1, arts. 192, 194(5).

[47] Kristina Gjerde, Harm Dotinga, S. Hart, Erik Jaap Molenaar, Rosemary Rayfuse, and Robin Warner, "Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction", IUCN, Gland, Switzerland (2008). http://cmsdata.iucn.org/downloads/iucn_marine_paper_1_2.pdf. For an excellent and up to date discussion of the legal regime see Robin Warner, *Protecting the Oceans beyond National Jurisdiction: Strengthening the International Law Framework,* Martinus Nijhoff 2009.

[48] See <http://www.unep.org/regionalseas/about/default.asp> accessed July 30, 2009.

treaties which are not under the UNEP umbrella. These regional treaty regimes include those for the Antarctic,[49] the Baltic,[50] the Caspian, [51] and the North-East Atlantic.[52] It is also important to note that these conventions are primarily groupings of coastal states and their jurisdiction is generally restricted to their coastal zones. The exceptions are the following: The OSPAR Convention which has high seas areas within its remit. The Mediterranean – where coastal states have for a number of reasons not claimed EEZs. The South Pacific which includes within its mandate the 'donut' holes between its members EEZs, and, of course, the Antarctic Treaty System consisting of both the Antarctic Treaty and its Protocol on Environmental Protection as well as the Convention for the Conservation of Antarctic Living Marine Resources (CCAMLR). CCAMLR which is a genuinely ecosystem based regime that regulates the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem. [53]

Fisheries Commissions

There are ten, regional fisheries management organizations (RFMOs) five primarily responsible for the conservation and management of high seas straddling stocks[54] and five regional organizations responsible for tuna species.[55] These organizations do not however provide comprehensive coverage of all exploitable high seas fish stocks, exposing those stocks not so regulated to an even greater risk of what the international community now calls IUU fishing activities (i.e. Illegal Unreported and Unregulated Fishing). For example, in November 2009, after a long drawn out negotiation, the treaty establishing the South Pacific Regional Fisheries Management Organisation (SPRFMO) was concluded – it has yet to enter into force.[56] Negotiations are also ongoing for a North Pacific RFMO, leaving fishing in this huge area still unregulated, The Agreement on deep sea fisheries in the Southern Indian Ocean (SIOFA) negotiated in 2006, now has four parties with the ratification of Mauritius on August 24, 2010.[57]. It seems that there are as yet no plans for a South Atlantic Commission covering those areas not within the remit of the Convention for the Conservation of

[49] Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR); in force 1982

[50] Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention); adopted 1974, in force 1980, revised 1992, in force 2000

[51] Framework Convention for the Protection of the Marine Environment of the Caspian Sea; adopted 2003.

[52] The Convention for the Protection of the Marine Environment of the North-East Atlantic – Oslo and Paris conventions adopted 1974, revised and combined into OSPAR Convention 1992, in force 1998.

[53] Art. I CCAMLR

[54] The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), General Fisheries Commission for the Mediterranean (GFCM); North Atlantic Fisheries Organization (NAFO); North-East Atlantic Fisheries Commission (NEAFC); the South-East Atlantic Fisheries Organization (SEAFO). Not yet in force is the 2009 convention establishing the South Pacific Regional Fisheries Management Organization (SPRFMO) Also relevant are the Central Bering Sea Fisheries Commission, and the North Atlantic Salmon Conservation Organization (NASCO), although salmon of course is an anadromous species, and the North Pacific Anadromous Fisheries Commission (NPAFC). See also David Freestone, 'Fisheries Commissions and Organisations' *Max Planck Encyclopaedia of Public International Law*, 2011

[55] Inter-American Tropical Tuna Commission (IATTC); International Commission for the Conservation of Atlantic Tunas (ICCAT); Indian Ocean Tuna Commission (IOTC); Commission for the Conservation of Southern Bluefin Tuna (CCSBT); and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC).

[56] For text see http://www.southpacificrfmo.org/ accessed 21 February 2011, and Final Act at: http://www.southpacificrfmo.org/assets/Convention-and-Final-Act/2272942-v1-SPRFMOSignedFinalAct.pdf accessed 21 February 2011.

[57] The Agreement provides that it will come into force on "receipt by the Depositary of the fourth instrument of ratification, acceptance or approval, at least two of which have been deposited by coastal States bordering the Area." It has been ratified by Mauritius and Seychelles (coastal states) and approved by the EU. Although the Cook Islands "acceded" to the agreement on 15 June 2008 it seems that accession does not meet the wording cited above and hence the agreement has not yet entered into force.

Antarctic Marine Living Resources (CCAMLR), nor likely to be any in the near future unless the political disputes between the UK and Argentina regarding the status of the Falklands/Malvinas are resolved.

The most recently established of these RFMOs – notably the Commissions set up by the 2000 Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC),[58] the 2001 South-East Atlantic Fisheries Organization (SEAFO)[59] and the 2009 South Pacific Regional Fisheries Management Organization were concluded after the 1992 UN Conference on Environment and Development and the finalisation of the 1995 UN Fish Stocks Agreement. As fisheries management bodies they are expressly mandated by the LOSC itself to incorporate environmental concerns into their marine conservation and management regimes, but in addition they are bound to address the new ecosystem maintenance and conservation of biological diversity concerns introduced by the 1992 UNCED, notably through the 1995 UN Fish Stocks Agreement and the large number of non-binding instruments which have followed it. In a ground breaking decision, the Parties to NEAFC have incorporated these concerns retrospectively. At the 24th meeting of the NEAFC parties in 2005 they approved a Declaration on the Interpretation and Implementation of the Convention on the Future Multilateral Cooperation in North-East Atlantic Fisheries agreeing to incorporate the post UNCED global agreements and instruments into their own regime.[60]

Many of the tuna RFMOs are still operating under the old rules and attempts to update their charters are not progressing rapidly,[61] although such changes may result from the series of performance reviews undertaken by the majority of these bodies and the consultation process that they have commenced between themselves - called the 'Kobe Process' after the first meeting in Japan in 2007.[62]

The Western Indian Ocean

This regional analysis will reflect this general context. It will look first at the seabed mining regime administered by the International Seabed Authority, then it will look at regulation of

[58] 2000 Convention on the Conservation and Management of the Highly Migratory Fish Stocks of the Western and Central Pacific Ocean (signed Honolulu, 5 September 2000, entered into force 19 June 2004) (2001) 40 ILM 277. See also T. Aqorau, 'Tuna Fisheries Management in the Western and Central Pacific Ocean: A critical analysis of the Convention for the Conservation and Management of the Highly Migratory Fish Stocks of the Western and Central Pacific Ocean.' (2001) 16 *International Journal of Marine and Coastal Law* 379.

[59] 2001 Convention on the Conservation and management of the Fisheries Resources in the South-East Atlantic Ocean, (Windhoek 20 April, 2001, entered into force 13 April 2003) (2002) 41 ILM 257. See also Andrew Jackson, 'The Convention on the Conservation and Management of Fishery resources in the South East Atlantic Ocean, 2001: An Introduction' (2002) 17 *International Journal of Marine and Coastal Law* 33-78.

[60] In 2006 NEAFC was also the first RFMO to undertake a performance review as recommended by FAO COFI for all RFMOs, see further below. Note also that in 2007 NAFO approved an Amendment to its Convention incorporating this same concerns. See http://www.nafo.int/about/frames/about.html . accessed 4 August 2009. The 2003 Antigua Convention supplementing the ICCAT Treaty came into force on 27 August 2010, see <.http://www.iattc.org/IATTCdocumentationENG.htm > accessed March 8, 2011.

[61] See for example regarding IOTC, W.R. Edeson, "An international legal extravaganza in the Indian Ocean: placing the Indian Ocean Tuna Commission outside the framework of FAO" (2007) 22 IJMCL 485-516

[62] See further discussion below and for the reports of the performance review and consultative meetings see:<http://74.125.153.132/search?q=cache:JN0W--cveHwJ:www.tuna-org.org/+tuna+RFMOs&cd=1&hl=en&ct=clnk&gl=au> accessed August 3 2009.

shipping issues, then the applicable regional seas treaty – the Nairobi Convention, and finally at the regional fisheries regime for the Western Indian Ocean.

Seabed Exploration and Exploitation

As we saw above, the International Seabed Authority has jurisdiction over the non-living resources of the seabed in the area beyond national jurisdiction – termed 'the Area' by the LOS Convention. For technical purposes this means that all states may claim jurisdiction over seabed resources out to the 200 nautical mile limit from their coastal baselines, but in the case of states whose geological continental shelf extends beyond 200 nm (broad margin states) then they may claim such jurisdiction out to the physical limit of their continental shelf – in some case to 350 nm and beyond. However such claims need to be referred to the Continental Shelf Commission (CSC) set up by the LOSC for the CSC's opinion as to whether each claim meets the technical requirements of the Convention, eg whether the area is geologically part of the continent upon which the coastal state sits.[63] The CSC is not a court but states are obliged to respect its technical expertise on these issues. A number of Western Indian Ocean States are broad margin states and have made applications to the CSC. The CSC has such a heavy workload that it seems unlikely that these claims will be reviewed in the near future, so many of these claims are simply 'place holders' until the states can submit detailed geological data to support their claims.[64] Currently these are Kenya, Tanzania, Seychelles, Mauritius and ....

Beyond the areas of national continental shelf claims, the seabed is termed 'the common heritage of mankind' and known as the 'Area'. In the Area the LOSC gives exclusive jurisdiction to the ISA to regulate exploitation and exploitation of what the 1982 Convention terms 'solid, liquid or gaseous mineral resources.' The regime is now well developed, the ISA has developed the 1982 regime by the approval of Regulations– relating to the exploration and exploitation of manganese nodules – the Nodules Regulations and of sulphides- the Sulphides Regulations. These each contain extensive environmental protection requirements, including EIA, best environmental practices and endorsement of the precautionary approach, including the setting aside of unexploited protected 'reference zones'. The fact remains however that the seabed mining site are potentially enormous and inevitably have major impacts on the marine environment.

Most of the commercial exploitation of seabed resources will be undertaken by commercial entities – whether private or public sector. But in order to obtain licenses for exploration and exploitation these entities need to be 'sponsored' by a state party to the 1982 Convention. Consequently there is considerable discussion as to the extent of liability of such sponsoring states, particularly if they might be developing countries with limited financial resources. This issue was recently addressed by the Seabed Disputes Chamber of the International Tribunal on the Law of the Sea (ITLOS).

In February 2011, the Seabed Disputes Chamber of the International Tribunal on the Law of the Seas (ITLOS) gave it first Advisory Opinion to the ISA on the 'Responsibilities and obligations of states sponsoring persons and entities with respect to activities in the Area.'[65]

[63] See Art. 75/76 LOSC

[64] Many have been supported by UNEP – [name of project]

[65] For a fuller discussion of this opinion see David Freestone ASIL Insight note March 2011 [url to follow]

The Chamber was asked a series of questions of which the most important and relevant here was Question 1: 'What are the legal responsibilities and obligations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular Part XI, and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982?'

On the primary question of legal responsibilities and obligations of a state sponsoring such activities, the Convention text is also relatively clear. Article 139(1) reads:

> States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part.

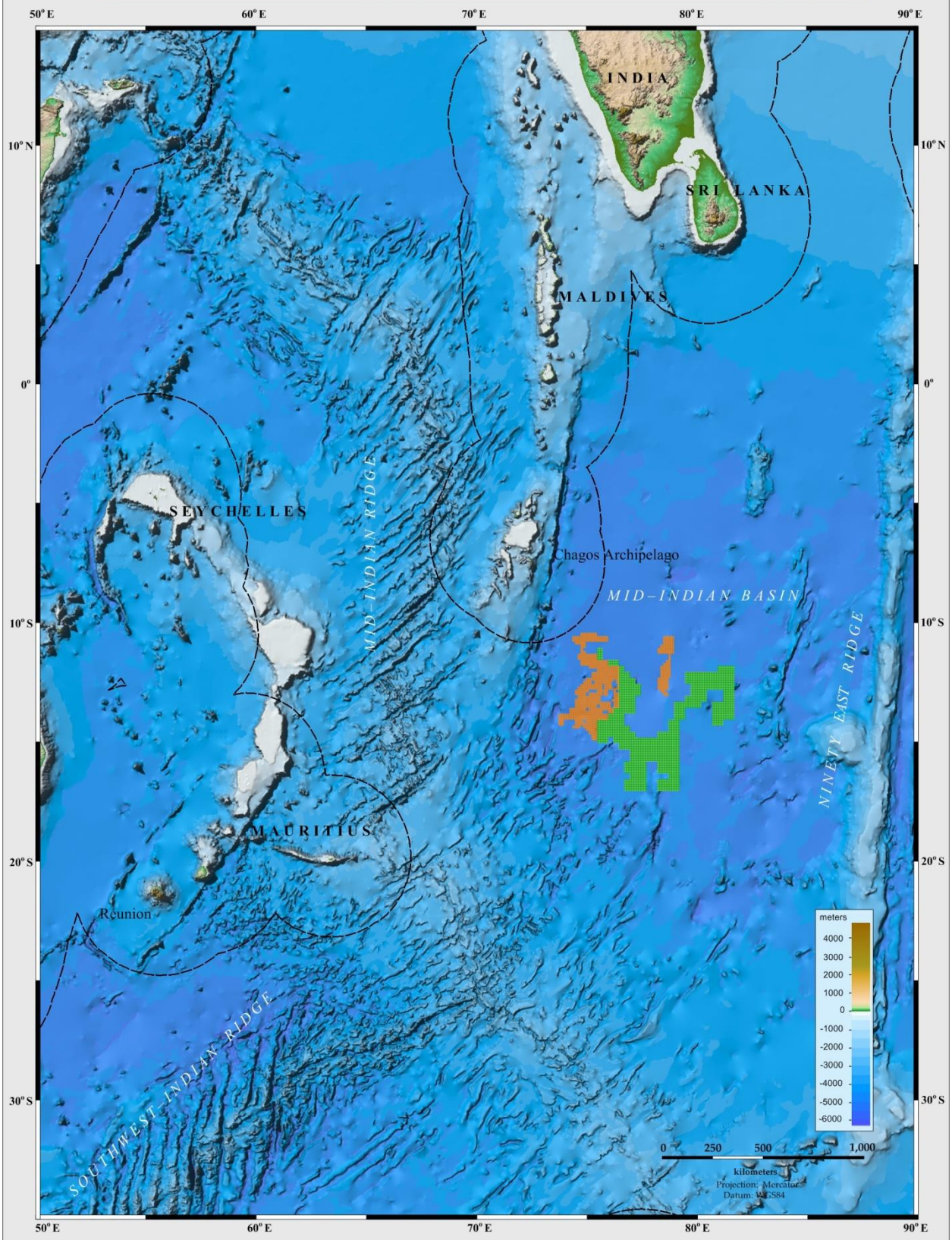
Under the Convention Annex III, Article 4, paragraph 4, State sponsors shall also, "pursuant to article 139, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention."

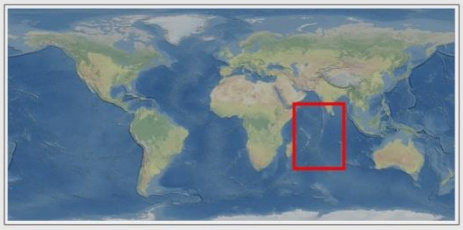
Having recognized that this provision contains an "obligation to ensure," the Chamber, in what is from an environmental law perspective possibly the strongest part of the opinion, itemized the constituent elements of this obligation, pointing out that this is an obligation of conduct rather than of result, i.e., it is not an obligation that requires the contractor's compliance in every case. Recognizing that "due diligence" may impose more rigorous requirements for riskier activities, the Chamber first identified what it termed the "legal obligation" to apply the precautionary approach as found in Principle 15 of the Rio Declaration. Precaution is recognized by the ISA Nodules and Sulphides Regulations, but the Chamber went further, seeing this as "an integral part of the due diligence of sponsoring states which is applicable even outside the scope of the regulations," requiring actions where scientific evidence is insufficient but "there are plausible indications of potential risk." Other due diligence elements include "best environmental practices," which are required by the ISA regulations and the Standard Clauses for exploration contracts. Technical and financial guarantees by a contractor, as well as the availability of financial recourse for prompt and effective compensation in the event of damage caused by marine pollution, are also included, as are requirements for Environmental Impact Assessment, which the Chamber found extended beyond the scope of the ISA Regulations.

On the wider and controversial question of the treatment of developing states, the Chamber unequivocally endorsed the principle of equality, recognizing that the spread of sponsoring states "of convenience" (similar to flags of convenience for ships) would jeopardize the application of the highest standards of protection.

In terms of impacts from Seabed Activities in the Indian Ocean, at present the only sites which have been approved by the ISA for mining in the Indian Ocean are in the Mid Indian Basin. See attached map – well to the east of the Western Indian Ocean area.

POLYMETALLIC NODULES EXPLORATION IN THE INDIAN OCEAN





Area under contract with the International Seabed Authority and the Government of India

Area reserved for the International Seabed Authority

Limits of Exclusive Economic Zones (indicative only; Source: VLIZ)

Regulation of Shipping Activities

At a global level, shipping activities are governed by a complex network of specialized conventions – sponsored generally by the International Maritime Organization (IMO). These regulate a wide range of activities from the employment terms of seafarers to construction and use of vessels carrying oil and other hazardous materials, dumping of wastes at sea, and discharges of ballast water. IMO rules also prescribe the ways that coastal states can seek to regulate the passage of vessels though coastal waters and international straits by use of internationally agreed devices such as traffic control schemes, compulsory pilotage and areas to be avoided. It is the flag states of vessels that are required to ensure that their vessels comply with this range of international rules, and only rarely do coastal states or port states have enforcement rights over foreign vessels, and then only to enforce rules set by international conventions.

Under the 1974/78 MARPOL Convention regulating the carriage of a range of hazardous and polluting materials, [66] the parties can agree to the designation of Special Areas – even in ABNJ areas – where high requirement t are put in place for 'at sea discharges provided that the coastal states nearby have adequate reception facilities for the collection and safe disposal of these materials from vessels putting into their posts [*insert section on Indian Ocean Special Are*as]

Since 1991 the Marine Environment Protection Committee (MEPC) has developed guidelines to designate important areas of the ocean as Particularly Sensitive Sea Areas (PSSAs). These PSSAs are marked on charts and have to be associated with other protection measures – such ship reporting schemes, discharge restrictions or ship routeing measures. While the majority of PSSAs have been in coastal waters such as the Great Barrier Reef in Australia, there have been some which also extend into high seas – as in the western European PSSA. None of these designations however have been sought in the Western Indian Ocean, but an ecosystem based management system should be able to encompass the activities of vessels in international waters and to enable coastal states to exercise the maximum degree of influence over foreign vessels in that ocean space, they should all be parties to the main IMO shipping conventions.

Regional Seas Convention

As discussed above the relevant UNEP regional seas Convention is the Nairobi Convention. Its jurisdiction does not extend into areas beyond national jurisdiction.

Fishing Agreements in ABNJ

There are two fisheries agreements whose jurisdiction extends over vessels fishing in ABNJ. The Indian Ocean Tuna Convention (IOTC) and a second agreement intended to complement the South West Indian Ocean Fisheries Commission (SWIOFC) by regulating fishing for non-tuna species outside national waters – the Southern Indian Ocean Fisheries Agreement (SIOFA) which is designed to regulate fishing for deep sea species such as orange

[66] List the Annexes

roughy on seamounts. This has yet to enter into force and an informal arrangement has sought to fill the *lacuna* this has created.

Two Important New Concepts

Over the last decade international concern has been growing at the lack of an adequate comprehensive framework for high seas governance, and within the context of the UN General Assembly and the Convention on Biological Diversity, two new concepts designed to protect important areas in ABNJ have emerged which will also be of major significance for the Western Indian Ocean region. These concepts are Vulnerable Marine Ecosystems (VMEs) and Ecologically and Biologically Significant Areas (EBSAs).

Vulnerable Marine Ecosystems

As we have seen, neither the regional seas organizations nor the regional fisheries management organizations cover all ocean regions or activities, or even all fisheries activities. Recent activities such as bio-prospecting that may affect the seabed and its resources remain unregulated and emerging activities such as ocean fertilization and other carbon sequestration schemes are only slowly finding a home in the international regulatory regime for ocean dumping.[67]

While the international community is beginning to respond, progress has been slow. Of course, overfishing is not the only threat to marine biodiversity, but overfishing of high seas fish stocks, particularly from IUU fishing activities, has been the subject of a number of ongoing international activities. The unregulated exploitation of deep-sea fish stocks such as orange roughy and toothfish, including by bottom trawling over unique seamount ecosystems, has prompted wide concern. In 2004, UN General Assembly (UNGA) Resolution 59/25 of 17 November 2004[68] called on States acting individually or through RFMOs to take action urgently, and consider on a case by case basis and on a scientific basis, including the application of the precautionary approach, the interim prohibition of destructive fishing practices, including bottom trawling that has adverse impacts on vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals located beyond national jurisdiction, until such time as appropriate conservation and management measures have been adopted in accordance with international law. [69]

In 2006, the UNGA went further, and in paragraph 80 UNGA Resolution 61/105 called upon states: to take action immediately, individually and through regional fisheries management organizations and arrangements, and consistent with the precautionary approach and ecosystem approaches, to sustainably manage fish stocks and protect vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, from destructive fishing practices, recognizing the immense importance and value of deep sea ecosystems and the biodiversity they contain. Later paragraphs in the resolution described the expected action and set deadlines of December 31, 2007 for areas where there were no RFMOs, and December 31, 2008 for areas with RFMOs.

[67] See above note 10.
[68] GAOR 59th Session Supp 49 vol 1, 30.
[69] at para. 66.

In summary, paragraphs 80-91 of UNGA res 61/105 called for States and RFMOs to assess the impacts of individual bottom fisheries activities in order to determine if such fishing activities would cause significant adverse impacts on vulnerable marine ecosystems, and to either manage the fishery to prevent such impacts or not authorize the fishing to proceed. The UN Secretary General's report on progress with respect to implementation of UNGA res. 61/105 paragraphs 80-90 was released in mid-August 2009, for review by the UNGA in September-November to determine whether and what additional measures may be necessary. [70] The Report concluded that despite progress, "implementation of the Resolution has been uneven and further efforts are needed in this regard, including through the adoption and implementation of conservation and management measures to address the impacts of bottom fishing activities on vulnerable marine ecosystems." The UNGA is due to review progress on this issue again in 2011.

The UNGA also requested the FAO to develop guidelines for managing deep sea fisheries on the high seas and the protection of vulnerable marine ecosystems.[71] Pursuant to this mandate, in March 2007, the FAO Committee on Fisheries (COFI) requested the development of International Guidelines for the Management of Deep-Sea Fisheries in the High Seas to assist States and regional fisheries management organizations and arrangements in sustainably managing deep-sea fisheries. These guidelines were adopted in August 2008.[72]

Pending the coming into force of SIOFA (above) there is no international body with responsibility for developing regional provisions relating to the protection of vulnerable marine ecosystems in the Indian Ocean area. The absence of such a regional agreement clearly does constitute a major impediment to the development of an ecosystem based approach to management of the ABNJ areas in the Indian Ocean.

Other relevant developments:

To address the full realm of issues relating to biodiversity in areas beyond national jurisdiction, in 2004 on the recommendation of the UN Informal Consultative Process on the Oceans and the Law of the Sea (UNICPOLOS) the UN General Assembly agreed to establish an Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. This Working Group held its first meeting in 2006, a second ran from 28 April - 2 May 2008, a third meeting was held in January 2010, and a fourth is scheduled for May 2011. A number of important proposals have been discussed at these meetings including, as mentioned above, a European Union proposal for a new Implementing Agreement to develop a more

[70] Reports on implementation of these obligations have been prepared, *inter alia*, by IUCN and the Deep Sea Conservation Coalition.: *IUCN study regarding implementation of UNGA Resolution 61/105, paragraphs 83-90 with respect to deep sea bottom fishing on the high seas.* Also, see Matthew Gianni, *review of the implementation of the UNGA aagreement to protect deep-sea ecosystems on the highsseas* Deep Sea Coalition 2009. The DSC Report can be found at www.savethehighseas.org> accessed July 30 2009

[71] By UNGA Res 61/105 [8 December 2006] GAOR 61st Session Supp 49 vol 1, 53.

[72] Food and Agriculture Organization of the United Nations, 'International Guidelines for the Management of Deep-Sea Fisheries in the High Seas' in Food and Agriculture Organization of the United Nations (ed) *Report of the Technical Consultation on International Guidelines for the Management of Deep-Sea Fisheries in the High Seas* (FAO Rome 2009) 39.

specific framework to address, *inter alia*, conservation and sustainable use of marine biodiversity beyond national jurisdiction. It is envisaged that such an implementing agreement or agreements could supplement the 1995 UN Fish Stocks Agreement (UNFSA) the implementing agreement which elaborated and modernized the 1982 Convention with respect to highly migratory and straddling fish stocks. Other states have expressed the view that improved implementation should be the first priority, but have not provided their views on what might be done to enhance implementation with respect to biodiversity conservation in general. Discussions on high seas fisheries have proceeded largely in parallel.

Ecologically and Biologically Significant Areas

As indicated, the LOSC high seas framework was transformed by the new ecosystem maintenance and conservation of biological diversity concerns introduced by the 1992 UNCED, but these have focused primarily on high seas fisheries notably through the 1995 UN Fish Stocks Agreement and the large number of non-binding instruments that have followed it. The Convention on Biological Diversity itself contains little on marine biodiversity conservation, [73] but acting under the mandate of the Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity,[74] the parties have implemented a number of important initiatives designed to set systems in place to protect marine biodiversity in areas within national jurisdiction and scientific information and advice regarding marine biodiversity beyond areas of national jurisdiction.. At its most recent COP9 in Bonn it called for the compilation and synthesis of available scientific information on potential impacts of direct human-induced ocean fertilization on marine biodiversity as well as available scientific information on ocean acidification and its impacts on marine biodiversity and habitats, which is identified as a potentially serious threat to cold-water corals and other marine biodiversity. It also agreed to convene an expert workshop to discuss scientific and technical aspects relevant to environmental impact assessment in areas beyond national jurisdiction. [75]

Most importantly perhaps, by Decision IX/20, it adopted the scientific criteria (in Annex I) for identifying ecologically or biologically significant marine areas in need of protection, and the scientific guidance, (in Annex II), for designing representative networks of marine protected areas,[76] and requested the Executive Secretary to transmit the information contained in annex I and II to the relevant General Assembly processes. It then urged its parties, and invited other governments and relevant organizations, to 'apply, as appropriate, the scientific criteria in annex I, the scientific guidance in annex II, and initial steps in annex III, to identify ecologically or biologically significant and/or vulnerable marine areas in need of protection, with a view to assist the relevant processes within the General Assembly and implement conservation and management measures, including the establishment of

[73] The Convention on Biological Diversity, concluded 5 June 1992, entered into force 29 December 1993, 1760 UNTS 79
[74] UNGA 'Report of the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, held at Jakarta from 6 to 17 November 1995' [9 September 1996] UN Doc A/51/312 Annex II, Decision II/10.
[75] Decision IX/20 Marine and coastal biodiversity, para 10.
See <http://www.cbd.int/decision/cop/?id=11663> accessed 30 June 2009.
[76] As recommended by the Expert Workshop on Ecological Criteria and Biogeographic Classification Systems for Marine Areas in Need of Protection, held in the Azores, Portugal, from 2 to 4 October 2007.

representative networks of marine protected areas in accordance with international law, including the United Nations Convention on the Law of the Sea, and recognizing that these criteria may require adaptation by Parties if they choose to apply them within their national jurisdiction noting that they will do so with regard to national policies and criteria.'[77]

To help Parties in their efforts to apply the CBD criteria and guidance, the Secretariat of the CBD was requested by the CBD COP9 to convene an expert workshop on scientific and technical guidance on the use of biogeographic classification systems and identification of marine areas beyond national jurisdiction in need of protection. The expert workshop took place 29 September to2 October 2009 in Ottawa, Canada. Its mandate was to review and synthesize progress on the identification of areas beyond national jurisdiction which meet the scientific criteria and assess experience with the use of biogeographic classification systems in marine conservation and management. This enabled the workshop to provide scientific and technical guidance on the identification of areas beyond national jurisdiction that meet the CBD scientific criteria as well as guidance on the use and further development of biogeographic classification systems to inform international cooperation and action. Progress in this regard fed into discussions within the relevant United Nations processes as well as into CBD COP10 in Nagoya, in October 2010. [78]

The development and approval by the CBD of criteria for "Ecologically and Biologically Significant Areas" (EBSAs) provides a major incentive for the protection of such areas once they have been identified – even, or perhaps especially, in areas beyond national jurisdiction. Serious questions remain to be addressed about how to stimulate international and regional cooperation to protect areas identified by the international community as meeting the CBD scientific criteria for areas in need of protection located beyond national jurisdiction. As noted above, some of the RFMOs still operate under agreements that do not reflect ecosystem-based or precautionary approaches to management of fisheries resources, not to mention the protection of ecosystems and marine biodiversity that under the UNFSA States Parties are required to protect. Also, many oceanic regions beyond national jurisdiction do not have organizations to assist in integrated and cooperative regional management. Thus more may be required in terms of improving the performance of RFMOs and other sectoral organizations with respect to biodiversity conservation, and default mechanisms may be needed for regional and/or global cooperation where no regional organization or action plan exists.

This concept has the potential to be a major tool in the development of an ecosystem based approach to management of the LMEs. However, some thought need to be given as to which of, or how many of, the existing international bodies should be charged with identifying such EBSAs. There is no need for this to be the task of one singe organization but if a number of bodies embark on this work some degree of co-ordination would seem to be necessary.

[77] Para 18
[78] For CBD COP 10 Decision see https://www.cbd.int/cop10/doc/ (accessed 21 February 2011.

Part C. Conclusions:
Towards an LME-Based Regional Governance Strategy

This section analyses the current situation in the Western Indian Ocean and discusses some options for moving towards a Large Marine Ecosystem based governance strategy for the Western Indian Ocean region.

It is clear from the data collected above that the Western Indian Ocean has an unusually large number of sectoral regional treaty regimes, and that a considerable amount of financial resources is being channeled to marine environmental concerns in the region through the UN Agencies, the GEF, the World Bank, the European Union, NGOs and the private sector

Indeed, over the last 10 years the GEF has funded three major, interlinked projects concerned specifically with marine resource concerns in the region – one implemented by each of the original three GEF Implementing agencies: WIO-LAB implemented by UNEP, ASCLME implemented by UNDP and SWIOFP implemented by the World Bank. Unfortunately although designed to be complementary they have got out of alignment. The UNEP WIO-LAB Project is already closed. ASCLME and SWOFP were planned to start at the same time but for technical reasons the WB SWIOFP project started some 18 months after ASCLME. Despite the timing discrepancy co-ordination between the two projects is outstanding. They hold Joint Steering Committee Meetings and most of the policy meetings convened during this Policy and Governance Assessment process have been shared. The Directors of the two projects are also collaborating on the final outputs. For the two projects to have separate Transboundary Diagnostic Analyses (TDA) and Strategic Action Plans (SAP) would be inappropriate and unhelpful to the region as well as wasteful, for fisheries issues are obviously a major part of the ecosystem concerns that the ACLME is addressing.

In designing a regional system of Ecosystem Based Management it is worth recalling the essential elements of such an approach. A paper prepared for the 2010 Global Ocean Forum[79] examined the various definitions endorsed by countries legislation and commentators and extracted the following key common principles:

• EBM (Ecosystem-Based Management) is geographically specified, with ecosystem units corresponding to the temporal and spatial scales of management challenges that takes into account ecosystem knowledge and uncertainties and applies a precautionary approach in cases where predictive ability is limited.
• EBM recognizes that ecosystem change is inevitable. Hence, priority targets of EBM should include the conservation of ecosystem structure and function.
• In EBM, management should be decentralized to the lowest appropriate level and should encourage participation from all relevant stakeholders and scientific disciplines.

[79] David Freestone, Biliana Cicin-Sain, et al, *Improving Governance: Achieving Integrated Ecosystem Based Ocean and Coastal Management*. Policy Brief for 5th Global Forum on Oceans, Coasts and Islands UNESCO, Paris 3-7 May 2010, 22 pp.

• EBM should strive to balance diverse societal objectives that result from resource decision making and allocation.
• Recognizing that ecosystem processes are characterized by varying temporal scales and lag-effects, objectives for EBM should be set for the long term, and EBM should be implemented incrementally and adaptively.

The way in which various countries, international organizations and scientific commentators have identified these elements is contained in the following box:

Box: Various National and Scientific components of a Ecosystem Based Management

	Source						
Principle	**Australia**	**CBD**	**EPAP**	**FAO**	**McLeod et al (2005)**	**Sissenwine Murawski (2004)**	**U.K.**
#1 – Geographically specified		X			X	X	X
#2 – Takes into account uncertainty	X		X	X	X	X	
#3 – Change is inevitable		X	X			X	
#4 – Conserves ecosystem structure and function	X	X		X	X	X	
#5 – Management should be decentralized		X					X
#6 – Involves all relevant sectors	X	X	X		X	X	
#7 – Balances diverse societal objectives		X				X	
#8 – Recognizes temporal scales and lag effects		X			X	X	X
#9 – Implemented incrementally and adaptively	X		X		X	X	

Implementing these objectives at a regional, multinational level poses specific challenges. The fact remains however that a regional governance strategy which encompasses all the separate elements necessary for an LME based ecosystem approach will need co-ordination and collaboration and that the range of issues involved suggest that no single existing body has the range of expertise and the legal competence to take on such a role. This role needs to be exercised by the countries of the region at the highest-level and through a dedicated collaboration mechanism that can draw on the full range of national and regional skills and competences.

The following section discusses the various main options available to develop a regional EBM system in the WIO region; these can be roughly grouped as follows:

- Business as usual
- Enhancement of an existing institution with new powers
- Establishment of a new institution
- Informal collaboration mechanism

'Business as usual' – Maintain the Status Quo.

Virtually all the national reports developed in this Assessment process as well as a series of reports prepared by the wider project and other financed projects have highlighted the defects of the current situation. Apart from specifically funded, project based activities and the activities of sectoral organizations discussed later, there are very few systemic transboundary collaborative management activities in the region. Language and cultural differences, as well as widely different levels of development impede collaboration, nevertheless the work dne by both the ASCLME and the SWIOFP projects demonstrate that there is a need for change to reflect the full economic value to the region of effective LME based management of the marine environment and its resources – the *status quo* is a major lost opportunity

Enhancement of existing institution – to give it wider powers

As Part A of this report has indicated clearly, 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 possibly coastal zone management, through SWIOFC which is an advisory body restricted to EEZ resources to the tuna RFMO IOTC and SIOFA – the non-tuna RFB whose treaty has yet to enter into force. All these treaty regimes have clear but separate mandates. While there is some potential for overlap in their mandates, there is little evidence of any attempt or desire by these bodies to expand their competences. In fact a number of new regional integration bodies are adding another layer to this institutional jigsaw puzzle, seeking to co-ordinate 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 NEPA which is coordinating the Partnership for African Fisheries initiative and CAMFA.

Within the UN there had been an ongoing discussion about the lack of comprehensive ocean governance institutions at the global and regional level. While sectoral issues such as maritime transport, deep seabed mining and fisheries are the responsibility of, respectively, the International Maritime Organization, the International Seabed Authority and the various Fisheries Management Bodies (FMBs), there is virtually no co-ordination between them – or even among the FMBs.[80] There had been discussion at a global level of expanding the UNEP Regional Seas Conventions to take on wider regional ocean management responsibilities, but not only is the funding for such a major change not readily apparent, it is also clear that the regional bodies themselves are not positive about such a change. All the Regional Sea bodies except perhaps the Baltic and the Mediterranean have had difficulties meeting their

[80] The key exception is the so-called Kobe Process among the tuna and related species management treaty bodies. Kobe 3 was held in La Jolla California in July 2011. Astonishingly the first such meeting was only held in 2007.

existing mandates. The Nairobi Convention is no exception. The WIO-LAB project has assisted with the finalisation of a land-based source of pollution protocol,[81] nevertheless, the proposal for an Integrated Coastal Zone Management Protocol has been slow to gain acceptance among all the Nairobi Convention member countries. [82] Article 14(2) does provide that "the Contracting Parties shall endeavour to participate in international arrangements for research and monitoring outside the Convention area" which suggests a mandate for support for a broader ecosystem approach, but there is little evidence of this provision being invoked.

There are also suggestions that the Fisheries Management Bodies should take on a wider regional Ocean Governance role, but these proposals are controversial because there has been a great deal of international criticism of the way that the RFBs have been performing their fisheries management roles. A series of independent reviews of the RFBs prompted by the FAO Committee on Fisheries (COFI) in 2005 have revealed major defects in the Regional Fishery Management Bodies. Some of the most serious shortcomings were highlighted by the Review of the IOTC, [83] including gaps and weaknesses in its legal instrument, lack of proper stock data and 'low levels of compliance' with its measures. There have been problems in seeking to update its treaty mandate [84] and it seems unlikely that this is an appropriate time for parties and regional member to give it even wider powers. SWIOFC is the recipient of support from the SWIOFP project and the latter has been highly collaborative with ASCLME. SWIOFC certainly seems to have no aspiration or wish to broaden its mandate.

Therefore, despite, or perhaps because of, the large number of regional bodies that exist in the WIO regions there does not seem to be an obvious candidate for a leadership role in promoting the co-ordination of ecosystem based management for the LME as a whole.

Establishment of a new institution

Other GEF financed LME projects have sought to develop new institutions to take on an LME management role after the GEF project funding has been exhausted. There are proposal for an informal Commission for the three states in the Yellow Sea (the two Koreas and China). In Africa the Guinea Current LME which coordinates 16 west and central African coastal states has established an Interim Guinea Current Commission. Closer to the WIO region however the Benguela Current LME which involves only three states – Namibia, South Africa and Angola signed an interim agreement setting up the Benguela Current Commission in 2007,[85] which is planned to be made permanent by another convention to be finalized later in 2011, to come into force in 2012. The structure for this is: a permanent Commission headed by

[81] See above p. 8
[82] Supported by IOC and the ReCoMap project - discussed above at pages 8 and 00.
[83] http://www.iotc.org/files/misc/performance%20review/IOTC-2009-PRP-R%5BE%5D.pdf
[84] See Edeson above at p.00.
[85] For text of the Interim Agreement establishing the Commission was signed by Namibia, Angola and South Africa and came into force in 2007 see http://www.bclme.org/bcc/BCC%20INTERIM%20AGREEMENT%20E.pdf

each of the three countries in turn, assisted by a permanent Secretariat based in Namibia. A Ministerial Conference heads the decision making structure and intergovernmental bodies include a Marine Living Resources Committee; a BCC Management Board, an Ecosystem Advisory Committee and a series of working groups.

However it is clear that there is little appetite in the WIO region for a similar approach with the ASCLME/SWIOFP Projects. Participating countries have expressed concern on a number of occasions – including at Steering Committee meetings of the ASCLME Project - that they are not interested in supporting the creation of an Agulhas and Somali Currents Commission. The ASCLME Project Manager has had to make explicit assurances that this is not the intent of the project on a number of occasions.

A Structured Non-Binding Collaboration and Cooperation Mechanism

A new Commission is not the only model for the establishment of a region wide collaborative arrangement. In East Asia a new model has been remarkable successful. Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) has eleven states in it partnership -which has been formalized by the Haikou Partnership Agreement and operating agreements among all the partners. These include states at very different stages of development including Cambodia, PR China, DPR Korea, Indonesia, Japan, Laos PDR, Philippines, RO Korea, Singapore, Timor Leste and Vietnam. The partnership also includes nearly 20 non-country partners such as IUCN, the International Ocean Institute and the IOC Sub-Commission for the Western Pacific. [86]

It is an arrangement based on this less formal model which seems to have arisen organically from the work of the ASCLME/SWIOFP projects. In seeking to find ways of establishing collaboration without creating new, or changing existing, institutions the model of the Western Indian Ocean Alliance is evolving.

The basic concept is of an Alliance based on a network of bilateral MOUs or Aides-Memoires which would build on and consolidate the relationships already established during the implementation of the ASCLME and the SWIOFP Projects. It would act as a means of unifying governments, international organizations, scientific bodies, NGOs and civil society within the WIO region in efforts to consolidate support for the development and implementation of an ecosystem approach to marine governance and to serve as a next step in the further implementation of the ASCLME.

At the apex of such an Alliance there could be a Policy Steering Group with representation at a senior level (eg Permanent Secretary level) from national governments, but also NGOs, IGOs and the private sector. Input into this Group at a national level could come from the national committees to the Ecosystem-Based Management approach and through national inter-ministerial Committees. This Policy Group could provide support to a regional Inter-Ministerial Process [ie meetings at Ministerial level] as needs arose.

[86] http://beta.pemsea.org/non-country-partners

However the crux of the Alliance would be at a working level, at a scientific and technical level. Building on existing agreements and partnerships for long-term monitoring of the ecosystem and impacts, collaboration at this technical level would involve the identification of "gaps" in science, data capture and monitoring and the subsequent negotiation and adoption of further agreements through the Alliance to address the gaps. Various partners within the Alliance would take responsibility for funding and delivery of specific activities (e.g. monitoring of indicators of ecosystem welfare; community security; MPA and *refugia* development and monitoring; fish stock assessments; etc). Because activities would follow existing funding streams there would not be the need for large initial injections of finance. However, it can be expected that an effective working Alliance will attract further funding and interest, especially for 'gap' activity.

The advantages of such an arrangement are clear. From an institutional point of view there would be no need for the development of a complex, expensive new over-arching body or Commission for LME management and governance. For which, in any event, it is clear there is little support in the region. A simple collaboration and facilitation mechanism working for an Alliance steering body and coordinating with the various partners and agencies would be sufficient. The Alliance would recognise and engage with all the bodies in the region with established mandates that are already responsible for many of the management and governance activities necessary for an LME EBM approach.

At a substantive level a means of collaboration would allow more efficient and timely coordination within and between countries and the various entities working in the region which will reflect positively through more efficient use of human resources and more cost-effective use of limited funds (thereby reducing growing strains on national and regional human resources in the face of increasing demand). A strong, well-organised and united focus for leveraging further funding to enhance existing activities and to provide additional funding for identified 'gaps' in priority activities. It would also establish working mechanisms for the implementation of a Strategic Action Programme arising from the LME Programme in the WIO region. In addition, it could provide a platform for addressing gaps and overlaps amicably through the joint allocation of responsibilities

There are some risks with this innovative approach. Collaboration is not only an issue at regional level – there needs to be collaboration also between various players at national level also. Countries have been slow to respond to calls for the establishment or enhancement of Inter-Ministerial Committees (IMCs) at country level looking at LME EBM issues. As with the PEMSEA arrangements, State governments are key players but other partners need also to be full involved (NGOs, IGOs, and the Private sector). In the WIO regions there is no established tradition of regarding non-state actors as partners – this is a challenge. It is also important that the Alliance partnerships leverage existing capacity and not put further strain on already weak and over stretched national human capacity. It is important also that existing institutions and treaty bodies feel themselves full partners in

this Alliance and do not feel threatened that it will impinge on their mandates. Indeed the very pivotal concept of the Alliance is that is uses existing institutions and players and does not 're-invent the wheel'.

It seems clear for this analysis that there is a need for change to reflect the full economic value to the region of effective LME based management of the marine environment and its resources – the *status quo* is a major lost opportunity. There are already a large number of players and funding streams. There is no need for new institutions. What is needed is a mechanism for collaboration. The collaboration of the ASCLME and SWIOFP projects provides a model for the region as a whole. Much of the foundation work for this has already been done by the Project Management Units.

There is already a large degree of support for a Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA). Such an approach was discussed at the First Western Indian Ocean Stocktaking Meeting for an Ecosystem-Based Management Programme, in March 2010, which was convened alongside the Conference of the Parties to the Nairobi Convention.[87] This meeting was 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".

This is the strong recommendation of this Report for future action.

[87] It has also been discussed with general approval at other meeting such as 2010 ASCLME/SWIOFP Joint Steering Committee Meeting, Dar es Salaam, September 2010; Second Western Indian Ocean Region Data Buoy Cooperation Panel Workshop, May 2011, Mauritius; Joint ASCLME/SWIOFP Science-to-Governance Roundtable, Grahamstown, June 2011; Joint IUCN/ASCLME/SWIOFP Workshop on Governance and Management of the High Seas in the Indian Ocean, Grahamstown June 2011.

Appendix 1

Terms of Reference:
International Expert to undertake a Regional Policy and Governance Assessment for the Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Region

Background:

The Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project is part of a multi-project, multi-agency GEF supported Programme (UNDP/GEF ASCLME Project, UNEP/GEF WIOLaB Project, and WB/GEF SWIOFP) the aim of which is to institutionalize a cooperative, adaptive and results-based management of the western Indian Ocean. A phased approach is planned that progressively builds the knowledge base and strengthens technical, managerial and decision-making capabilities at the national and regional scales so as to address environmental concerns and transboundary developments (in all relevant sectors); builds political will to undertake threat abatement activities; and leverages finances proportionate to management and governance needs.

The geographic coverage of the ASCLME GEF projects includes the marine {?} area under the influence of two major currents – Agulhas Current and the Somali Current as well as the influence of the South Equatorial Current across the Mascarene ridge and basin. This encompasses ten countries – Comoro, France (Reunion and Mayotte), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania - See Annex II). The region includes also ocean areas that are beyond the jurisdiction of these countries

The implementation of the three projects has been out of phase due to differences in their respective start-up dates. The WIOLaB Project is about to conclude and has already developed a Trans-boundary Diagnostic Analysis (TDA) and Strategic Action Programme SAP for Land-Based Activities which will eventually feed into the region wide LME-focused TDA and SAP to be developed together with the ASCLME and SWIOFP components. With regard to the assessment of policy and governance, both the ASCLME Project and SWIOFP intend to undertake this activity and there will be close cooperation and coordination.

The activities within the ASCLME Project for the first phase are focused on the collection of coastal and offshore data and information and capacity building. This is achieved by using research cruises to capture essential information relating to the dynamic ocean-atmosphere interface and other interactions that define the LMEs, along with critical data on offshore fisheries (to be provided by SWIOFP), and open water larval transport. The cruise data is supplemented with data and information collected on nearshore oceanographic conditions; the identification of nursery areas along the coast as well as socio economics (livelihoods) and governance mechanisms. The overall objective of this data capture is to deliver, in the first instance, national Marine Ecosystem Diagnostic Analyses (MEDAs) that feed into national policy and governance briefs, regional Transboundary Diagnostic Analyses (TDAs), and a comprehensive Regional Strategic Action Programme (SAP). The implementation of the recommended actions in the MEDAs at national level and the regional SAP would require policy, legal and institutional reforms as well as sustainable financing.

In this regard, the ASCLME Steering Committee has approved an assessment of policies, legal, institutional and governance structures at national and regional levels so as to identify the requirements for the implementation of the LME (Ecosystem-Based) approach. The Project Co-Ordinating Unit (PCU) of the ASCLME Project therefore intends to undertake this assessment; the plan is that through this process, policy and decision makers will be appraised of, and become engaged in, the process specifically with regard to the outcomes of the MEDAs and the SAP and that this will result in their support for the leveraging of finance which will be critical for the sustenance of the resources.

The PCU of the **ASCLME Project therefore, is inviting international experts to submit expressions of interest in conducting a Regional Policy and Governance Assessment in the ASCLME region.**

Context

The marine and coastal governance styles and patterns within the region vary from one country to another based on their history and cultural backgrounds; and are influenced by regional and international agreements. These differences are expressed in terms of:

- Governmental organization, processes and priorities
- Levels of economic development
- The degree of scientific capability and the ability to incorporate science into policy process
- Patterns of social organization, culture and values as well as
- Political relations

The ASCLME region also has a number of regional and international agreements and bodies (perhaps separate the agreements and the bodies ? or put the implementing bodies after each convention ?) such as the Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention) with is Regional Co-odinating Unit (RCU) in ; the South Western Indian Ocean Fisheries Convention (SWIOFC) with its Commission based in ; Intergovernmental Oceanographic Commission Regional Committee for the Investigations in the North and Central Western Indian Ocean (IOCINCWIO); expanded regional agreements such as the Indian Ocean Tuna Commission (IOTC) and the recently negotiated Southern Indian Ocean Fisheries Agreement (SIOFA) under the aegis of the FAO; the Regional Economic Commissions such as SADC, COMESA and COI; and the Coastal and Marine Sub-programme of the African Union's New Economic Partnership for African Development (NEPAD). Further, the countries of the region are parties to a range of relevant international agreements notably the 1982 United Nations Convention on the Law of the Sea (UNCLOS); the 1992 Convention on Biological Diversity, the Jakarta Mandate of which addresses marine and coastal issues; maritime pollution and safety conventions under the International Maritime Organization (IMO); and fisheries related agreements and instruments such as the 1993 FAO Compliance Agreement, the 1995 UN Fish Stocks

Agreement and the FAO Fisheries Code of Conduct. All these policy and management instruments bring in a diversity of policies and governance mechanisms, many of which are regional or sectoral and if not harmonized may lead to reduplication [polarization?] of efforts and to conflicts, resulting in unsustainable management of the marine and coastal resources.

The countries of the region have agreed [through the GEF application endorsement process DF] that the application of an LME governance approach in the ASCLME region, based on the advice of science, is therefore required to address the diverse cultures, multi-agencies and multi-stakeholders, different national and regional management regimes as well as the challenges posed by ecosystem variability influenced by climate change and the sustainable management of sea areas beyond national jurisdictions (outside the EEZs). Currently there is no single mechanism that lends itself to support an integrated region-wide approach to the governance of marine and coastal resources in the ASCLME region. As a consequence the countries are not optimizing the benefits from the goods and services provided by marine and coastal resources. This is critical considering that most of the countries have high levels of poverty and lack food security.

Therefore, the GEF supported projects for the western Indian Ocean are facilitating the engagement of all current initiatives (from governments, private sector, communities, intergovernmental agencies as well as the actors of the various marine and coastal projects being implemented in the region) in a process that will bring about policies and governance mechanisms that are desired for the application of an ecosystem approach in the ASCLME region (including the areas beyond national jurisdictions). Such an arrangement will also assist the countries of the region to work more cooperatively and optimize the return on investments being made in the region as well as providing an opportunity for effective compliance with the regional and global agreements.

Approach:

In order to address these multidimensional governance issues, the ASCLME Project intends to investigate the policies and legislation guiding governance processes on the ecosystem functions of the two main management areas - the Somali Current Large Marine Ecosystem and the Agulhas Current Large Marine Ecosystem- especially in the context of their influence on societies and their economies. The collection of the information will be achieved first through the development of national Marine Ecosystem Diagnostic Analyses (MEDAs), followed by a regional Trans-boundary Diagnostic Analysis (TDA) and subsequently the Strategic Action Programme (SAP). The packaging of the information will be in accordance with the five LME modules namely: (1) productivity; (2) fish and fisheries; (3) pollution and ecosystem health; (4) socioeconomics; and (5) governance.

The first three modules: - productivity; fish and fisheries; and pollution and ecosystem health, provide scientific information regarding the state of the natural ecosystem. This is being achieved through the data being collected by scientific cruises and archived data collated by the National Technical Coordination Groups (COGS) and experts of the ASCLME Project (Annex III), as well as through limited in-field coastal data collection activities. The information provided by the socioeconomic module specifies the size and scope of activities

surrounding human populations and the various ways that people exploit and manage their resources. This module is being implemented by the Assessment of Coastal Livelihoods. The information component of the governance module will collect and analyse the national and regional laws and regulations as well as the behavior of the various entities engaged in the utilization and management of the resources, including law enforcement. Further, the governance module probes the fundamental and institutional processes and structures that are the basis for planning and decision making. An organogram of the linkages between the different components collecting and collating data and information is presented in Annex III.

This consultancy on Regional Policy and Governance Assessment is intended to furnish data and information for the governance module of the LME approach and will liaise closely with a similar activity being undertaken by SWIOFP. The Policy and Governance Assessment will take an historical perspective on how management structures have evolved in the region as a whole. **The historical assessment will guide the development of regional governance mechanisms that will aim to avoid repeating previous unsuccessful initiatives and to capture the lessons of previous successes.**

Part One of the assessment will examine the long-term trends in both human well-being and environmental conditions as a means of determining the performance of governance interventions. The assessment will focus on how the governance systems have responded to ecosystem change as reflected by the availability of the resources, such as fluctuations of fish stocks, and will aim to identify inadequacies. The analysis should deal with practice rather than simply content. Particular attention should be given to the influence of, and impact on, policies and governance of the private sector, civil society and coastal communities and vice versa

Part Two will outline a strategic approach to policy, legal and institutional reforms and the designing of a regional governance mechanism that is necessary to address the issues for the effective application of the LME approach in the ASCLME region. The methods to be employed should encourage long-term perspectives, an appreciation of the roles played by governments, civil society and the private sector (markets) as well as a holistic view of the ecosystem-based approach. It should also aim to define appropriate mechanisms for engaging coastal communities in the governance process and particularly into ecosystem management and monitoring as well as appreciation of the variability and impacts of climate change.

Consideration should also be given to the concept of nested systems of governance across vertical and horizontal scales so that planning and decision making at one scale does not conflict and/or contradict with that of the other. Central to ecosystem-based governance is the concept that all planning and decision making must analyze and incorporate conditions, issues and goals at least at the next level in the governance system. Nesting is essential because environmental and societal issues are transboundary across the scales. That is why the approach used by ASCLME starts from the national level with MEDA and policy briefs, then ascending to the regional level with the TDA and SAP

Scope of the Assignment:

The regional consultancy is divided into two major tasks:

1. Undertake a policy and governance assessment for the ASCLME region. The regional assessment will include but not be limited to:
    - A historical review of the regional agreements and associated agencies (including, but not limited to those listed above) as well as pertinent regional projects (both current and historical)
    - Compilation of national ecosystem-based cross-sectoral governance efforts based on national assessments reports.
    - A review of the current status of international law and agreements in relation to the management and governance of ABNJ in the context of developing an LME-based regional governance strategy.

2. Provide technical backstopping support to national experts who will be responsible for the synthesis of national ecosystem-based governance assessment reports as inputs to the MEDAs and into the regional assessment.

N.B. The geographical scope of this assignment includes all of the participating countries which are signatory to the Project Document i.e. Comoro, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and Tanzania. Wherever possible the assignment should seek out as much information from Somalia as well as from the French Islands of Reunion and Mayotte. Due consideration should be given to the 'high seas' areas beyond national jurisdiction (see blue area in Annex II below for boundary of project)

Specific tasks:

Undertake a governance review (with due reference made to any previous and on-going related reviews) keeping in mind the important objective that it should be able to directly inform and guide:

- The development of management plans for specific transboundary/straddling fish stocks
- The development of policy and governance briefs to inform dialogue and negotiations at national and regional levels
- The design and finalization of the ASCLME SAP and governance briefs at national level.

The specific tasks include the following:

1. **<u>Undertake regional assessment as follows</u>**:
    - Assess and analyze previous (over the last 20-50 years; existing and planned regional instruments, legislative frameworks, institutional mechanisms and governance structures that have a bearing on the application of the LME approach to marine and coastal resources,
    - Determine the extent to which the regional policies, legal instruments and governance structures may be harmonized to align them for the application of the LME approach,
    - Propose governance reforms through the development of regional issue based policy and governance briefs [– are these separate documents?] to inform high level roundtable discussion, negotiation and inclusion in the SAP.
    - Propose drafts for the development of the governance sections of the TDA and SAP in collaboration with national and other regional experts.
    - Propose a set of practical and effective indicators for tracking progress on the achievements of regional governance that provides an environment for the effective application of the LME approach in the ASCLME region.

    This regional assessment will, by nature, require consultation with regional organizations and entities involved in marine, coastal and watershed monitoring and management including (but not limited to) the Nairobi Convention, the South Western Indian Ocean Fisheries Commission, the Indian Ocean Tuna Commission, NEPAD (New Partnership for Africa's Development), SADC (Southern African Development Commission), COMESA and the appropriate sectors of the African Union. In particular coordination with the SWIOFP governance assessment and with reference to the Legal and Institutional report produced by WIOLAB.

2. **<u>Assist national experts</u> in**:
    - The review of respective national policies, legislative frameworks, institutional mechanisms and governance structures for the last 20 years that have a bearing on the sustainable management of marine resources including fisheries and the environment through the application of the LME approach. The review should emphasize more the adequacies/inadequacies of practice rather the adequacies/inadequacies in the contents of the policy, institutional and legal instruments. As a preliminary activity, consultants should make themselves aware of any previous or on-going reviews of a similar nature so as to capture their outputs and avoid duplication of effort or conflict.
    - Development of the structure for the national governance assessment reports, which will ultimately form part of the MEDA.
    - Translating the information obtained from the assessment together with the recommendations from MEDA into national governance briefs for presentation to governments through the Inter-Ministerial Committee for Marine and Coastal Management.
    - Propose and give options on how policies, legislative frameworks, institutional mechanisms and governance structures may be harmonized and

enhanced in order to meet the challenges of applying the LME approach to marine and coastal resources at the national level in the first instance.

The regional analysis should consider the following key questions:

1. The extent to which ecosystem approaches are being practiced at regional level and the arrangements for :
    a. Addressing externalities through a holistic institutional arrangement and governance strategies
    b. Incorporation of natural and social science perspectives and insights into governance processes
    c. Recognition of the connection between watersheds and coastal management as well as fisheries/ ocean management as part of the overall LME approach.
2. Consideration of sustainability in the governance endeavours – including financial?
3. How the public is participating in the governance of the resources, with particular reference to community involvement and needs.
4. The level of practice and exercise of equity – in what sense – between rich and poor. coastal and non coastal peoples, between countries?
5. Application of the precautionary principle
6. Existence of market based and other economic incentives
7. Level of Practice and evidence of adaptive management
8. Evidence of existence of mechanism and institutions that may be useful in advancing ecosystem based management:
    a. The level of practice of Environmental Impact assessments
    b. Coordinating government arrangements and mechanisms
    c. Co-management systems
    d. Presence/absence of science and socioeconomic advisory bodies
    e. Educational efforts/activities on ecosystem based management
    f. Remote sensing and the use of geographic information systems
    g. Economic incentives
9. Supportive government regulation and command and control rules for ecosystem-based management

Suggested approach:

The regional analysis should consider the following key questions:

The extent to which ecosystem approaches are being practiced at regional level and the arrangements for addressing externalities through a holistic institutional arrangement and governance strategies; incorporation of natural and social science perspectives and insights into governance processes; recognition of the connection between watersheds and coastal management as well as fisheries/ ocean management as part of the overall LME approach. It should include consideration of the following issues: sustainability in the governance endeavours; how the public is participating in the governance of the resources, with particular reference to community involvement and needs; the level of practice and exercise of equity; the application of the precautionary principle; the existence of market based and other economic incentives; the level of Practice and evidence of adaptive management. It should also consider the evidence of existence of mechanism and institutions that may be useful in advancing ecosystem based management, such as the level of practice of Environmental Impact assessments; coordinating government arrangements and mechanisms; co-management systems; presence/absence of science and socioeconomic advisory bodies; educational efforts/activities on ecosystem based management; remote sensing and the use of geographic information systems; economic incentives. The report should also examine supportive government regulation and command and control rules for ecosystem-based management

Expected Outputs:

Key outputs of the Policy and Governance Assessment are:

1. A regional synthesis report which provides a comprehensive framework of information that can inform the MEDA's, specific national policy briefs, TDA and SAP.

2. Issue specific regional policy briefs with specific recommendations for inclusion in the relevant sections of the TDA and SAP. The policy briefs will include a set of possible policy and governance interventions which can be used to facilitate discussion for achieving an ecosystem-based approach for the WIO region. Specifically the following reports are expected

    a. One comprehensive regional policy and governance assessment report
    b. Regional issue-based policy and governance briefs containing recommendations for regional policy and governance reforms for inclusion in the SAP
    c. A minimum of 8 Issue-based national governance briefs (responsibility of national consultants; at least one per country).

    d. Proceedings of all regional meetings and workshops held to facilitate the assessment

The structure of the report shall consider the issues highlighted in points 1-9 (key questions for the analysis) under the section on Specific Tasks. [Does this mean you DO want the Report simply structured under those headings?]

Qualifications of the Consultant:

- Postgraduate training in relevant marine fields such as natural or social sciences, law or business.
- More than 10years experience in regional and international intergovernmental processes addressing coastal and marine issues
- Knowledge on governance systems of the ASCLME countries and the region.
- Experience.
- Knowledge in international and regional treaties and conventions relevant to the management of marine and coastal resources and the environment.
- Ability to communicate in English and/or French. The ability to communicate in other languages common in the region (e.g. Portuguese and Kiswahili) would be advantageous.

Workplan and schedule of deliverables

Attached as Annex I

Reporting Formats:

To be developed by the Regional Consultant in collaboration with the national and regional experts and agreed upon by the PCU

Timeframe:

The consultancy will commence work on April, 2010 and be complete by September, 2010

Administration:

The consultant will work under the supervision of the Director of the ASCLME Project through the Policy and Governance Coordinator who will review the outputs and present them to the Steering Committee for endorsement.

Payment:

- Lump-sum consultancy fee calculated at a daily rate of …… for a period not to exceed 75 days spread over six months (April – September, 2010). The consultant undertaking this work will be expected to travel within the region. The schedule of payments is as presented in the table below.

- Travel and DSA costs will be covered by the ASCLME Project as per UN Rules and Regulations.

- The ASCLME Project will also cover reasonable expenses incurred (telephone calls and travel costs) which will be claimed through an F.10 submission. However, prior approval is required for these costs.

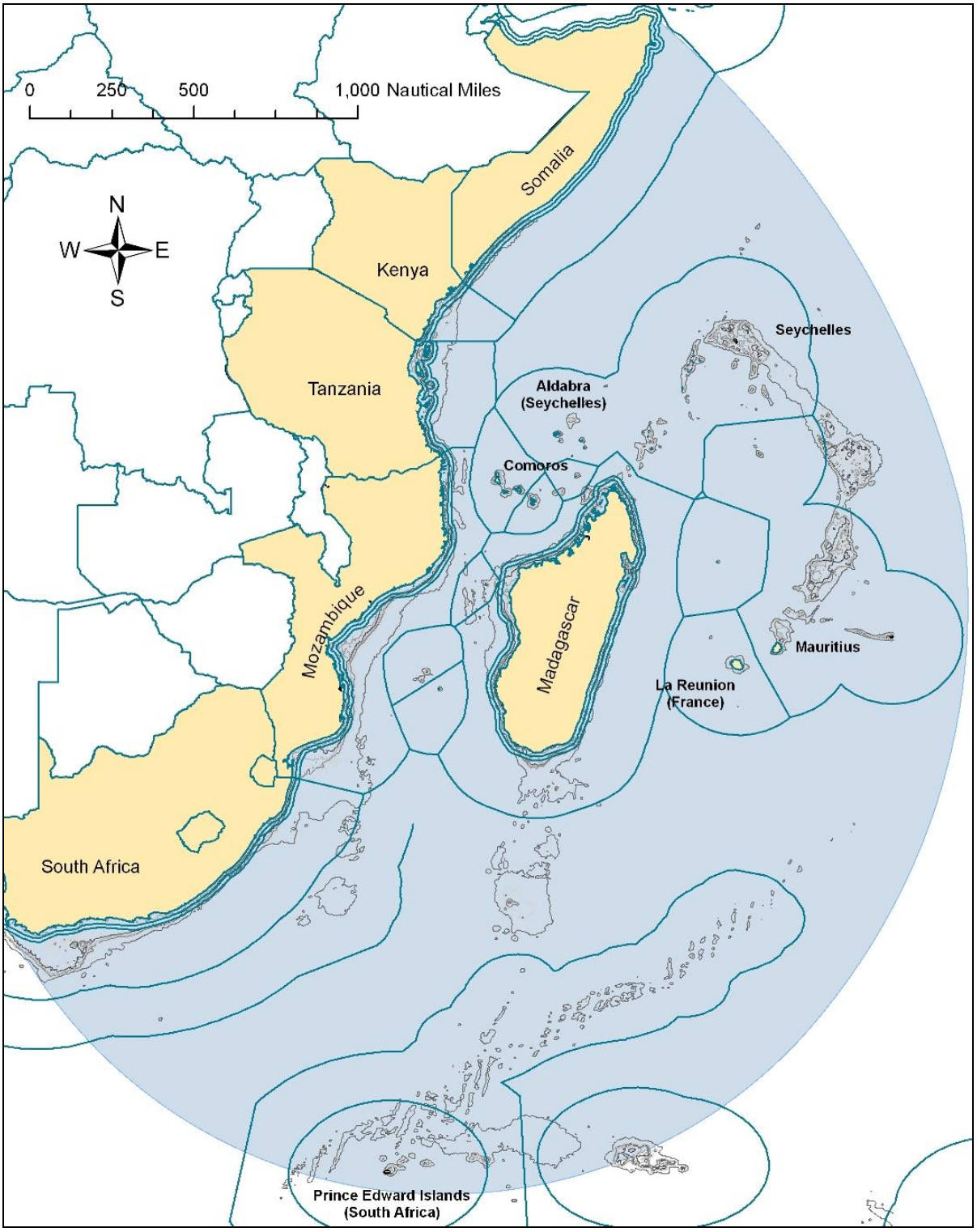
Annex I: **WORK PLAN AND SCHEDULE OF DELIVERABLES BY THE INTERNATIONAL EXPERT CONDUCTING P&G**

FOR THE ASCLME REGION

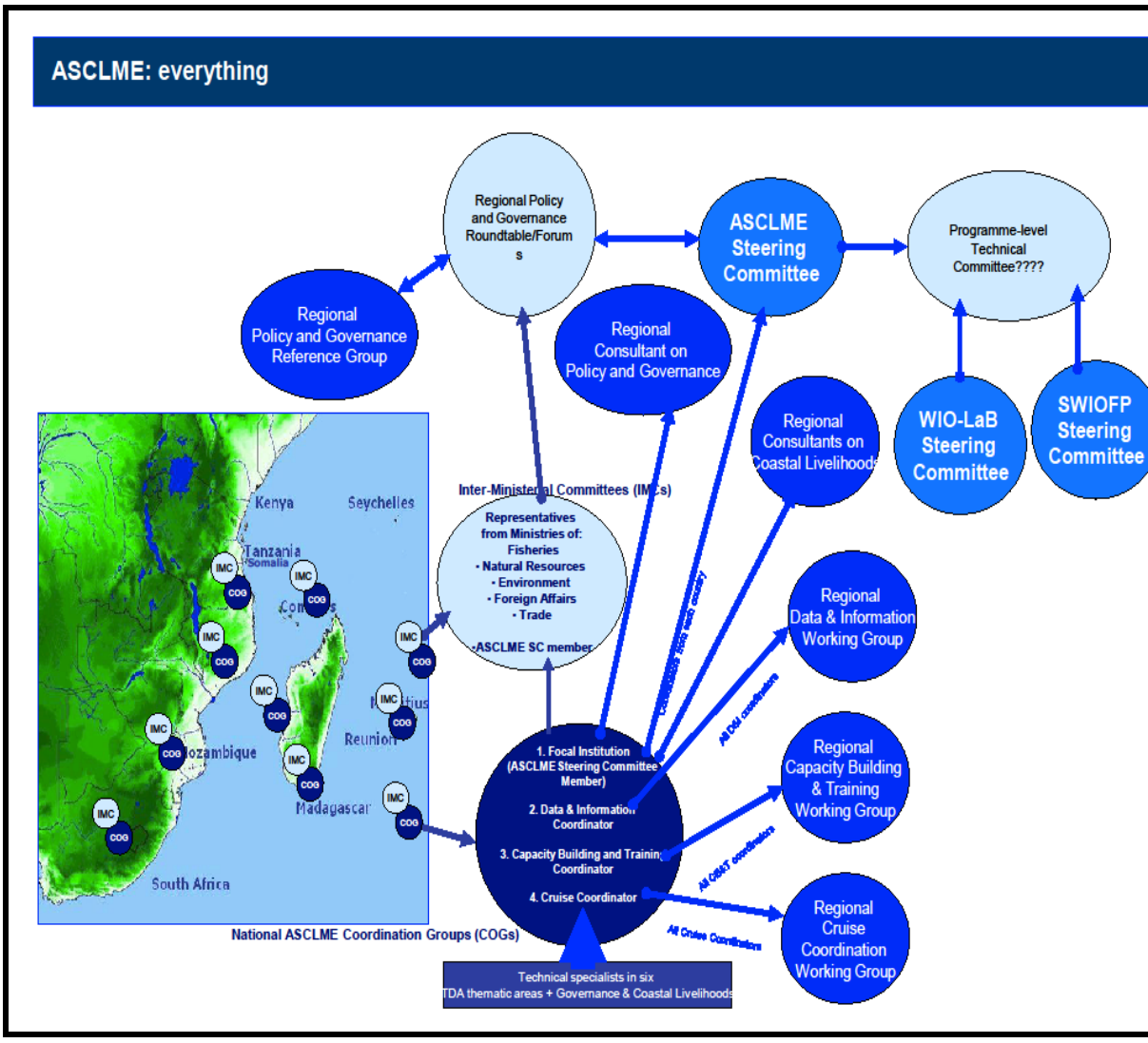
OUTPUT	DELIVERY PERIOD														COMMENT
	MAR		APR		MAY		JUN		JUL		AUG		SEP		
Signed Contracts															
Regional Review of data and information, gaps and issues concerning the application of LME approach															This activity to be undertaken together with Regional Experts
Co-ordinate? a regional scoping workshop for the presentation of national and regional reports															
Report on the regional scoping workshop															
Report on the status of data and information, gaps and issues on regional policy and governance processes															This activity to be undertaken together with Regional Experts
Proposal [or Finalization] of a set of indicators for tracking the implementation of ecosystem-based approach at national level															
Regional policy and governance briefs on specific issues															This activity to be undertaken together

OUTPUT	DELIVERY PERIOD														COMMENT
	MAR		APR		MAY		JUN		JUL		AUG		SEP		
															with Regional Experts
Finalization of a set of indicators for tracking the implementation of ecosystem-based approach at regional level															
Peer Review Reports [what are these?]															
Regional Workshop to review the final draft of the Regional P&G Assessment report and accompanying briefs															
Final Regional P&G Assessment Report and Summaries for inclusion in the TDA and SAP															

Annex II: The ASCLME Region showing countries with their EEZs and areas beyond national jurisdictions



Annex III: National Technical Coordination Groups (COG), composition and relationship to regional coordination arrangements.



Appendix 2

Agulhas and Somali Current Large Marine Ecosystem Project
Policy and Governance Assessment
National Consultants Workshop
27/28 September, 2010, Grahamstown, South Africa

Draft Agenda

Day One: 27th September, 2010
Morning Day one

9.00 Opening and Introduction:
Welcome Dr David Vousden, Project Director, ASCLME Project
General Governance Introduction: Dr Magnus Ngoile, Policy and Governance Coordinator, ASCLME Project
Process, time line, expectations: Dr Ngoile and Dr David Freestone, Regional Policy and Governance Assessment Consultant, ASCLME Project

Afternoon Day One
Presentations by national experts, covering:
Outline of national legislation and policy frameworks
Membership of, and inputs into, regional and international organizations

Day Two: 28th September 2010
Morning Day Two:
National presentations and discussions continued

Afternoon Day Two:
Development of a common format for the national reports
Discussion of required Policy Briefs and indicators: Magnus and David F.