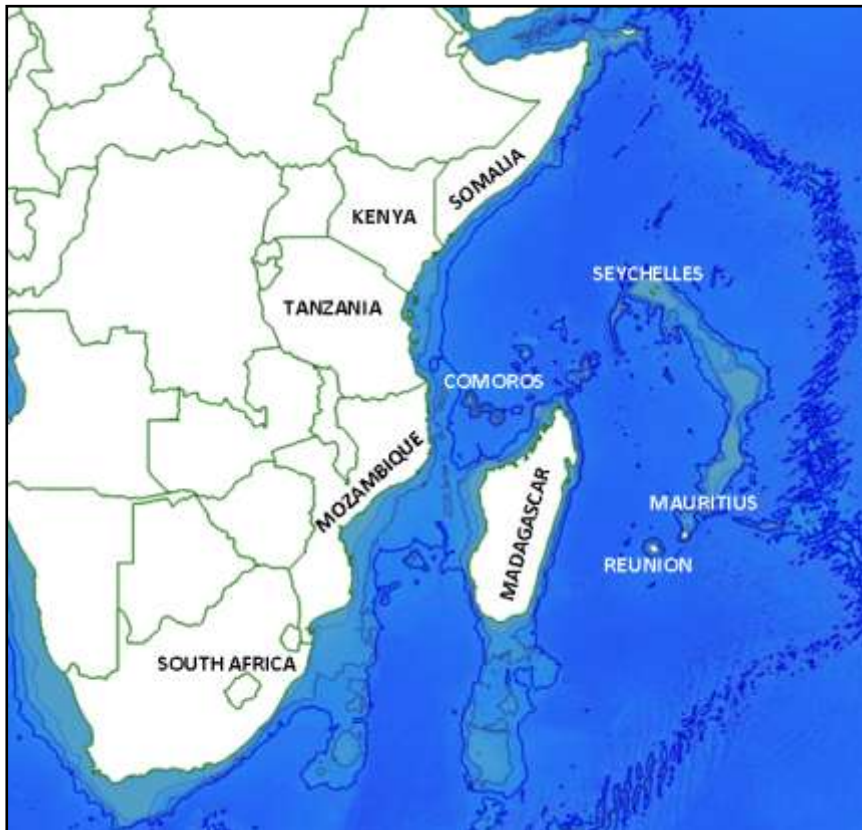


# TRANSBOUNDARY DIAGNOSTIC ANALYSIS

OF THE

Western Indian Ocean Coastal and Marine Environment



## PART III: GOVERNANCE ANALYSIS



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# 1. Management, Policy and Governance Analysis

## 1.1 Introduction

The geographic coverage of the Western Indian Ocean GEF Projects includes the area under the influence of two currents – Agulhas Current and Somali Current as well as the South Equatorial Current which flow across the Mascarene Ridge and basin. This area encompasses ten countries including Comoro, France (Reunion and Mayotte), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and United Republic of Tanzania (Tanzania Mainland and Zanzibar). As such the region also includes areas beyond the national jurisdiction (ABNJ) of the countries. The inclusion of the ABNJ has a significant implication on the governance marine and coastal resources of the region. The ten countries in the WIO region have, from an ecosystem, historical and economic perspective formed more or less a cohesive geopolitical area, since the mid-1990's becoming known as the Western Indian Ocean (WIO) region. In recognition of the uniqueness of the coastal and marine environment of the region, the threats it faces, and the necessity for remedial and/or pre-emptive action, the countries of the WIO region adopted the 1985 Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and its two protocols on Protected Areas and Wild Fauna and Flora (SPAW Protocol) and the Protocol concerning Cooperation in Combating Marine Pollution in Cases of Emergency. The Nairobi Convention is one of a dozen or so *Regional Seas* initiatives promoted under UNEP's Regional Seas Programme and provides a useful point of departure to examine the governance regime in the region.

An important aspect of understanding threats and causes of coastal and marine environmental degradation is to identify key governance issues with a view to planning and recommending action for optimizing governance in the region. As such, this chapter straddles international, regional and national laws, policies and institutions with the overall purpose of generally understanding the role of governance in better managing and regulating use of the marine and coastal environment in the WIO region. A particular strength of the Nairobi Convention, with strong relevance to the WIO region, is that all ten countries referred to above are parties to it.

This section presents the governance systems practiced in managing marine and coastal resource both at national and regional levels. “An Ocean and coastal governance framework underpins a set of institutions, laws, regulations and mechanisms that guide the adoption and implementation of specific management and development actions. Good governance is achieved when such a framework progressively incorporates a set of agreed upon principles (such as participation, consensus, orientation; strategic vision; responsiveness, effectiveness and economic efficiency; accountability and transparency; and equity and rule of law). Governance sets the stage within which management occurs” (Olsen *et al.* 2006). The process leading up to compiling this governance analysis has been as follows:

- The foundation for governance analysis was laid by a team of national and regional experts under the overall guidance of the Regional Legal and Technical Review Task Force. This team undertook a regional assessment of policy, legal and institutional frameworks as well as the status of ratification of international conventions related to protection of the marine and coastal environment from land-based sources of pollution and activities. The Regional Synthesis Reports resulting from this exercise form the main

basis for this governance analysis (UNEP/Nairobi Convention Secretariat and WIOMSA, 2009b&c).

- Further analysis of the regional governance situation was undertaken during a special meeting of the Legal and Technical Review Task Force<sup>1</sup> when shortcomings and gaps related to national and regional policy were highlighted and the adequacy of legal and institutional frameworks for land-based marine pollution management assessed.
- Subsequently, the First Regional TDA/SAP Stakeholders Workshop<sup>2</sup> identified governance as a key crossing-cutting issue in each of the three problems areas discussed in Chapter 4. During the further course of the TDA development, the analyses presented in this chapter of the TDA were examined in more detail.

## 1.2 'Governance' and 'government' in the context of coastal and marine ecosystem management

The term 'governance', has a meaning very distinct to 'government'. Government denotes the formal legal institutions of the state, including, in particular, formal political authority and leadership structures. In terms of classical constitutional separation of powers, it means the executive arm of the state, that is, the political, socio-economic and administrative management of public affairs. As such it encompasses the mechanisms, processes and institutions through which citizens and groups articulate their various interests, mediate their differences and exercise their legal rights and obligations (UNDP, 2003).

In contrast, governance is much broader and includes, in meaning and scope, the exercise of political authority and control over society and how that affects the management of a country's economic and social resources for development (Landell-Mills and Serageldin, 1993; cited in UNDP, 2003). Governance usually broadly brings together all development and other players or stakeholders in society and emphasizes shared or collective responsibility in ensuring overall well-being of the society in question. Governance is defined as the process of informed decision making that enables trade-offs between competing users of a given resource so as to balance protection with beneficial use in such a way as to mitigate conflict, enhance equity, ensure sustainability and hold officials accountable (Turton *et al.*, 2007). Governance, thus entails the institutional capacity of public organizations (not limited to formal government) to furnish public and other goods and services to the citizens in an effective, transparent, impartial and accountable manner (subject to resource constraints), thus intertwining both political and economic governance (World Bank, 2000; UNDP, 2003). As such, governance provides an enabling environment for development and eradication of poverty and deprivation, and has qualities such as protection of property rights, equitable development and accountability (UNDP, 2003).

Governance plays out at various levels and in respect of varying parties including both the formal government sphere and civil society. In this context, governance loosely comprises of a hybrid of international and national laws and policies as well as the institutions and actors both in government and in civil society which make them work, or not, in some cases. Thus, in the

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<sup>1</sup> Held in Zanzibar: Jan/Feb 2007)

<sup>2</sup> Held in Nairobi, 17-19 April, 2007)

national government sphere, the point of departure for international governance are the various international conventions and related institutions outlined under Section 5.3 below, presenting a review of relevant international and regional governance frameworks and institutions.

### 1.3 Governance consequences in the Main Areas of Concern

A broad spectrum of governance approaches is evident among Eastern and Southern African coastal nations and island states. Like governance systems in sub-Saharan Africa as a whole, these vary or have varied in a historical perspective from authoritarian regimes on the one hand to successful democracies on the other. Some systems retain remnants from colonial governance processes, particularly with respect to legal systems, institutional frameworks and language. Thus, while much of eastern Africa is English-speaking, the official language of Mozambique is Portuguese while most of the island nations in the southwest Indian Ocean are French-speaking. However, a general feature is that current governance institutions reflect ties to former colonial powers to a greater or lesser extent. The following section identifies, analyses and describes the governance-related issues of the three main problem areas related to the degradation of the coastal and marine environment described in Chapter 4..

A number of the governance issues related to each of the three key problem areas, are summarised in this section. It should be noted that not every issue identified is equally applicable in all countries of the region<sup>3</sup>. Furthermore, in many cases it is possible to fine-tune the governance intervention to a more focused level of management of individual sources and activities, which raises a plethora of additional governance issues, as explained in Box 5.1 Rather than going into such detail, this chapter seeks to identify the broader governance issues related to the three problem areas<sup>4</sup>. Within the same context, it should also be noted that the governance issues identified here may not be exhaustive due to the large variety of issues specific to the various levels in the governance framework for LBSA management.

An analysis of governance issues contributing to problem area 1 (*Water and sediment quality degradation due to pollution*) is presented in Table 5-1. The main issues are grouped into legal, institutional and policy frameworks as they relate to the discharge of pollutants to the coastal and marine environment.

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<sup>3</sup> Where such is the case, the term ‘partial’ is used in the analysis presented in this section.

<sup>4</sup> Which may serve, among others, as a basis for more detailed localized analysis within the context of the relevant national governance processes, e.g. National Programmes of Action on Land-based Activities, Integrated Coastal Zone Management Plans, National Environmental Management Plans.

- Table 5-1 Governance issues related to the degeneration of water and sediment quality due to pollution.

Cat	Regional/international governance	National governance
Legal framework	<ul style="list-style-type: none"> <li>• Absence of a regional agreement with regard to the management of land-based sources of pollution</li> <li>• Absence of a regional agreement for maintaining minimum coastal water quality targets</li> <li>• Absence of a regional agreement for transboundary EIA/SEA, including reporting procedures</li> <li>• Shortcomings in the adoption and ratification of key LBSA-related conventions, including the Nairobi Convention</li> <li>• Weak integration of regional inter-governmental agreements (including economic treaties)</li> </ul>	<ul style="list-style-type: none"> <li>• Partial absence of national effluent standards</li> <li>• Partial absence of national water quality objectives and target values</li> <li>• Fragmented (sectoral as opposed to integrated) legislation</li> <li>• National legislation not adequately aligned with international and regional obligations</li> <li>• Poor/lack of enforcement of legislation</li> <li>• Lack of adequate dispute resolution procedures</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Absence of a regional ‘champion’ providing oversight on land-based sources of pollution management</li> <li>• Shortcomings in collaboration and coordination between regional institutions</li> <li>• Absence of adequate regional financial mechanisms</li> <li>• Inadequate data for sustainable management</li> </ul>	<ul style="list-style-type: none"> <li>• Restricted capacity of national institutions responsible for regulating and controlling discharges of land-based sources</li> <li>• Partial absence of national water quality monitoring programmes</li> <li>• Conflicting mandates and inadequate cooperation between national institutions charged with various aspects of LBSA management</li> <li>• Partial absence of a register of industries and wastewater treatment facilities</li> <li>• Insufficient public and private sector involvement</li> <li>• Lack of human resources and technical capacity for managing, monitoring and enforcement</li> <li>• Lack of adequate financial mechanisms and resources</li> </ul>
Policy framework	<ul style="list-style-type: none"> <li>• Absence of coherent regional policies and strategies for land-based sources of pollution management</li> <li>• Limited awareness and understanding with regard to the importance of management of land-based sources of pollution, especially in political sphere</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of coherent national policies and strategies for land-based sources of pollution management</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>



The governance issues raised in relation to Problem Area 2 (*Physical alteration, destruction of habitats and community modifications*) relate largely to problems associated with marine artisanal fisheries mangrove forests, seagrass beds, coral reefs, coastal forest degradation and shoreline changes. The relevant governance issues identified in section 4.3 are summarized in Table 5-2.

• Table 5-2 Governance issues related to physical alteration, destruction of habitats and community modifications

Cat.	Regional/international governance	National governance
Legal framework	<ul style="list-style-type: none"> <li>• Non- or only partial implementation of Nairobi Convention and its Protocols</li> <li>• Shortcomings in the adoption and ratification of key LBSA-related conventions, including the Nairobi Convention</li> <li>• Weak integration of regional inter-governmental agreements (including economic treaties)</li> </ul>	<ul style="list-style-type: none"> <li>• Inappropriate and incomplete national legislation for dealing with PADH</li> <li>• Fragmented (sectoral as opposed to integrated) legislation</li> <li>• National legislation often not aligned with international and regional obligations</li> <li>• Poor/lack of enforcement of legislation</li> <li>• Lack of adequate dispute resolution procedures</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Absence of a regional ‘champion’ providing oversight on critical habitat management</li> <li>• Shortcomings in collaboration and coordination between regional institutions</li> <li>• Absence of adequate regional financial mechanisms</li> <li>• Inadequate data for sustainable management</li> <li>• Inadequate capacity to assess ecosystem health</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of human resources and technical capacity for natural resource management</li> <li>• Lack of human resources and technical capacity for managing, monitoring and enforcement</li> <li>• Inadequate cooperation and conflicting mandates of national institutions charged with various aspects of LBSA management</li> <li>• Limited involvement of stakeholders in resource use planning and management</li> <li>• Lack of adequate financial mechanisms and resources</li> </ul>
Policy framework	<ul style="list-style-type: none"> <li>• Absence of coherent regional policies and strategies for habitat management</li> <li>• Limited awareness and understanding with regard to the importance of management of critical coastal habitats, especially in political sphere</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of the values of ecosystem services at policy-maker level</li> <li>• Absence of coherent national policies and strategies for habitat and biodiversity management</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>

The governance issues raised in relation to Problem Area 3 (*Alteration of river freshwater flow, quality and sediment loads*) focus primarily on problems associated with the interaction between

river basins and the coastal and marine environment. Highlighted are alteration and/or modifications of freshwater flows, alteration and/or modifications of sediment loads and water quality/pollution. The governance issues identified in section 4.4 are summarized in Table 5-3.

- Table 5-3 Governance issues related to alteration of river flows and sediment loads.

Cat	Regional/international governance	National governance
Legal framework	<ul style="list-style-type: none"> <li>• Lack of harmonised legal frameworks (including inter-governmental agreements) for the management of transboundary water resources/ivers</li> <li>• Shortcomings in the implementation of inter-governmental agreement for river basin management</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of a coherent legal framework for the governance of river basins</li> <li>• Lack of a legal framework for inter-state collaboration</li> <li>• National legislation often not aligned with international and regional obligations</li> <li>• Poor/lack of enforcement of legislation</li> <li>• Lack of adequate dispute resolution procedures</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Limited financial and human resource capacity for effective implementation of agreements and comprehensive water resources management regimes</li> <li>• Lack of inter-sectoral water governance, i.e. involvement of different water use sectors in the management of the resource</li> <li>• Lack of information on and data of the nature, causes and impacts of water resources utilization, particularly on the marine and coastal environments</li> </ul>	<ul style="list-style-type: none"> <li>• Limited involvement of stakeholders in resource use planning and management</li> <li>• Lack of awareness of stakeholders of the impact of their activities on other stakeholders and the ecosystem as a whole in particular marine and coastal environments</li> <li>• Inadequate cooperation and conflicting mandates of national institutions charged with various aspects of water resources management</li> <li>• Lack of human resources and technical capacity for integrated river basin and coastal area management</li> <li>• Lack of adequate financial mechanisms and resources</li> </ul>
Policy framework	<ul style="list-style-type: none"> <li>• Lack of adequate integrated regional water resource management policies to address increased demands for limited water resources</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>	<ul style="list-style-type: none"> <li>• Limited awareness and understanding with regard to the importance of management of river basins</li> <li>• Absence of coherent national policies and strategies for river basin management</li> <li>• Low priority afforded to LBSA-related issues at political level</li> </ul>

The governance issues raised in relation to Problem Area 4 (*Decline of living marine resources*) relate largely to problems associated with marine artisanal fisheries and industrial fisheries. The relevant governance issues identified in section 4.3 are summarized in Table 5-2.



• Table 5-2 Governance issues related to decline of living marine resources

Cat.	Regional/international governance	National governance
Legal framework	<ul style="list-style-type: none"> <li>• Non- or only partial implementation of Nairobi Convention and its Protocols</li> <li>• Shortcomings in the adoption and ratification of key protocols of the Nairobi Convention</li> <li>• Weak integration of regional inter-governmental agreements (including economic treaties)</li> </ul>	<ul style="list-style-type: none"> <li>• Inappropriate and incomplete national legislation for dealing with fisheries.</li> <li>• Fragmented (sectoral as opposed to integrated) legislation</li> <li>• National legislation often not aligned with international and regional obligations</li> <li>• Poor/lack of enforcement of legislation</li> <li>• Lack of adequate dispute resolution procedures</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Absence of a regional ‘champion’ providing oversight on critical habitat management</li> <li>• Shortcomings in collaboration and coordination between regional institutions</li> <li>• Absence of adequate regional financial mechanisms</li> <li>• Inadequate data for sustainable management</li> <li>• Inadequate capacity to assess ecosystem health and fisheries stock assessments.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of human resources and technical capacity for fisheries management</li> <li>• Lack of human resources and technical capacity for managing, monitoring and enforcement of fisheries regulations and laws.</li> <li>• Inadequate cooperation and conflicting mandates of national institutions charged with various aspects of fisheries management</li> <li>• Limited involvement of stakeholders in fisheries management</li> <li>• Lack of adequate financial mechanisms and resources for fisheries management.</li> </ul>
Policy framework	<ul style="list-style-type: none"> <li>• Absence of coherent regional policies and strategies fisheries management</li> <li>• Limited awareness and understanding with regard to the importance of management of fisheries especially in political sphere</li> <li>• Low priority afforded to fisheries related issues at political level</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of the values of ecosystem services at policy-maker level</li> <li>• Absence of coherent national policies and strategies for fisheries management</li> <li>• Low priority afforded to fisheries related issues at political level</li> </ul>

The governance issues raised in relation to Problem Area 5 (*Climate change/variability and extreme events*) relate largely to problems associated with climate change impacts on the coastal and marine ecosystem and the communities. The relevant governance issues identified in section 4.3 are summarized in Table 5-2.

- Table 5-2 Governance issues related to climate change/variability and extreme events

Cat.	Regional/international governance	National governance
Legal framework	<ul style="list-style-type: none"> <li>• Non- or only partial implementation of Nairobi Convention and its Protocols</li> <li>• Shortcomings in the adoption and ratification of key protocols of the Nairobi Convention</li> <li>• Weak integration of regional inter-governmental agreements (including economic treaties)</li> </ul>	<ul style="list-style-type: none"> <li>• Inappropriate and incomplete national legislation for dealing with climate change impacts.</li> <li>• Fragmented (sectoral as opposed to integrated) legislation</li> <li>• National legislation often not aligned with international and regional obligations</li> <li>• Poor/lack of enforcement of legislation</li> <li>• Lack of adequate dispute resolution procedures</li> </ul>
Institutional framework	<ul style="list-style-type: none"> <li>• Absence of a regional ‘champion’ providing oversight on climate change impact mitigation.</li> <li>• Shortcomings in collaboration and coordination between regional institutions</li> <li>• Absence of adequate regional financial mechanisms</li> <li>• Inadequate data for sustainable management of climate change impacts.</li> <li>• Inadequate capacity to assess climate change impacts on coastal ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of human resources and technical capacity for mitigation of climate change impacts.</li> <li>• Lack of human resources and technical capacity for managing and monitoring of climate change related regulations and laws.</li> <li>• Inadequate cooperation and conflicting mandates of national institutions charged with various aspects of climate change impact management</li> <li>• Limited involvement of stakeholders in climate change adaptation and mitigation.</li> <li>• Lack of adequate financial mechanisms and resources for climate change adaptation and mitigation.</li> </ul>
Policy framework	<ul style="list-style-type: none"> <li>• Absence of coherent regional policies and strategies on climate change impact management</li> <li>• Limited awareness and understanding with regard to the importance of climate change adaptation and mitigation especially in political sphere</li> <li>• Low priority afforded to climate change related issues at political level</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of the values of ecosystem services at policy-maker level</li> <li>• Absence of coherent national policies and strategies for climate change mitigation and adaptation.</li> <li>• Low priority afforded to climate change related issues at political level</li> </ul>

## 5.2 Stakeholders in Coastal and marine ecosystem governance

After considering both direct and root causes, the national and synthesis reports identified and described the respective constitutional structures, laws, policies and institutions in eight WIO

countries. The reports further identified eight sectors as being central to addressing the degradation of the coastal and marine environment. These sectors, as well as their respective governing institutions, are presented in Table 5-5. Each of the sectors shown has a broad array of laws, institutions and policy aspects pertaining to it, either directly or indirectly. It follows that each sector also has an array of stakeholders, ranging from civil society to top levels of government.

At national level, the precise government structures (institutions responsible) for the various sectors may vary from country to country, although generally they are as indicated in the third column of Table 5-5. Whatever the exact names of the institutions involved, from a governance perspective these sectors are all central to preventing and combating coastal degradation. (Further perspectives on existing national policy, legal and institutional frameworks are presented in section 5.4)

At the regional level there exists an array of institutions and organization involved in issues related to the governance of coastal and marine ecosystems, in addition to a range of international and regional agreements, conventions and programmes. (A further perspective on these regional and international governance frameworks is presented in section 5.3)

There are also community and civil society organizations, NGO's and related actors and stakeholders involved with various facets of governance, not only at institutional level but also in developing policies, sometimes at national level. Indeed, the concept of co-management, especially in fisheries has been successfully developed in several locations. Since 2000, the presence of at least some level of co-management in a selected suite of some 163 WIO fisheries has improved from 27% to 51%. (van der Elst *et al.*, 2009) Some of these co-management arrangements have grown into so-called beach management units (BMUs) where a wider range of environmental and socio-economic issues are jointly managed (Wanyonyi, 2009). Such beach management units are in place in Kenya, Tanzania and Mozambique. The role of civil society in LBSA management is further described in section 5.5.

Clearly, the number and diversity of stakeholders potentially involved in coastal and marine ecosystems management is extensive. Hence, achieving coordination and coherence in addressing coastal and marine ecosystem -related issues is one of the main challenges of governance. Fortunately, this important weakness is increasingly acknowledged by policy makers and many countries have, or are embarking on, integrated governance processes such as ICZM, National Action Plans or the like. Also, the use of integrated management tools such as EIA and SEA are becoming progressively more embedded in national management frameworks. However, much still remains to be done in order to achieve adequate levels of stakeholder involvement and coordination to ensure efficient and effective governance of the coastal and marine ecosystems in the WIO region.

- Table 5-5 Table of key sectors, stakeholder groups and governing institutions involved in LBSA Management.

Sectors	Typical stakeholder groups	Governing department
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<b>Sectors</b>	<b>Typical stakeholder groups</b>	<b>Governing department</b>
<i>Fisheries and aquaculture</i>	Artisanal fishers Industrial fishers Recreational fishers Seaweed farmers Industrial prawn farmers Fish & shellfish farmers	Fisheries Environment Conservation
<b>Agriculture and forestry</b>	Charcoal makers Small-scale loggers Industrial loggers Small-scale farmers Large-scale farmers Forest users/herbalists Pastoralists Ranchers Poultry farmers Dairy farmers Beekeepers	Environment Agriculture Forestry Conservation, Natural Resource Management Wildlife Management Livestock
<i>Tourism</i>	Tourists Hotel owners & operators Small-scale traders Tour, boat & SCUBA operators	Tourism Infrastructure Wildlife Forestry
<b>Mining</b>	Coral/lime miners Sand miners Small-scale salt producers Industrial salt works Small-scale miners Industrial mining companies Fuel suppliers & stations Oil & gas production	Minerals Energy Infrastructure
<i>Industry</i>	Heavy manufacturing industry Light manufacturing industry Agro-processing industries Oil refining	Infrastructure
<b>Transportation</b>	Ports Dredging companies Clearing and forwarding Railway Roads Airports Airlines Shipping	Harbour Infrastructure Transport Water management

Sectors	Typical stakeholder groups	Governing department
<i>Energy production</i>	Hydro-dam operators Power station operators Renewable energy producers	Infrastructure. Energy
<i>Coastal development and urbanisation</i>	Solid waste operators Sewage managers Property developers Property owners Town planners Coastal community	Local authorities Infrastructure Physical planning Environment

## 7.1 National management and governance instruments

The policy and governance assessments at national level explored the legislative framework and institutional structures that are responsible for managing major marine and coastal resources including fisheries, tourism, coastal agriculture and forestry, coastal mining and energy, marine transport, wildlife and conservations. The constitutions in the different countries were reviewed to assess how the ecosystem approach has been provided for in these key legal instruments (Table 19). Bilateral delineation of the boundaries of EEZs was also explored as this aspect is important in addressing transboundary issues.

The marine and coastal governance styles and patterns within the WIO 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.

Table 19: The basis of legal systems in the countries of the Western Indian Ocean

Country	Origins of the Legal System
Comoros	Arabic, Islamic Law and French Law
Kenya	English Law
Mauritius	English, French Law
Madagascar	French Law
Mozambique	Portuguese
Seychelles	English Law
Somalia	-
South Africa	English Law /South African Roman Dutch common law
Tanzania	English Law

The countries have derived their legal systems from a variety of legal systems including the English, Arabic/Isalmic, French, Indian, Roman, Dutch etc. All the countries of the region have agreed constitutions. These constitutions make reference to the sustainable use of natural

resource and conservation of the environment as a human right adopted by the UN. The constitutions are being amended from time to time to accommodate changes in the political system. The most recent is the change in the Kenyan constitution.

The governance of the major sectors related to the sustainable use of marine and coastal resources varies from country to country. In some sectors there are more than six pieces of relevant legislation. Although the existing legislation adequately covers the management of coastal and marine resources, there are inadequacies and gaps in the application of the existing legislation to effectively guide the implementation of ecosystem based management – the LME Approach. The gaps and recommendations are presented in the following section for each of the WIO countries.

**Comoro:** The maritime zones of Comoro have not been delineated with Seychelles, Tanzania, Mozambique, Madagascar and France. This has serious negative implications in addressing trans-boundary issues amongst these countries. The legal regime of the Comoros consists of a large number of texts, laws and decrees whose existence is sometimes not known to the institutions which are responsible for implementing them. It is believed that law enforcement depends in part on the establishment of a parliamentary system because of the advantage of empowering the executor. It also makes the legislative body be accountable to the nation. The turn-over of governments in Comoro have made it difficult for the Parliament to seat. The success of implementation also depends on political will, capacity and material resources.

With regard to fisheries sector, the key issue is the conflict of competences between the Union and the Autonomous Islands governments on the management of financial aid among multistate holders and potential donors. Forestry resources are key to the livelihoods of the communities in Comoro. The challenge in the forestry sector is how to mobilize and sensitize all stakeholders for their involvement in the sustainable management of natural resources, preservation and conservation for future generations as well as validation of the forest policy and strategy developed in 2010 and seek appropriate funding for its implementation. Further challenges facing the forestry and fisheries sectors as well as the environment include how to find alternative livelihoods for the communities and promote income generating activities. Parks and Wildlife have to ensure that the renewal of stocks of species dependent on coral reefs and seagrass beds because they are the lifeline of the communities. There is need to update and implement the agricultural strategy adopted in 1994. In addition, it is important to address the problem of land tenure, regulating the landowners so as to provide for the landless to allow a real intensification of agricultural production.

**Kenya:** The maritime zones of Kenya have not been designated with Somalia. Addressing transboundary issues has further been complicated by civil conflicts in Somalia. The Fisheries Management Bill (GOK 2009) requires to be fully reviewed to empower it with coordination role since it has been weakened by various overlaps in mandates of institutions that directly or indirectly interlink with fisheries resources and its environment. There is further need to review the Fisheries Act to domesticate the regional and international conventions, and agreements into Kenyan law.

The Tourism Policy (GOK/MOTW 2006) and the Tourism Bill (GOK/MOT 2010) have still created more corporate bodies in the Ministry of Tourism which still promotes administrative overlaps in their mandates and can cause conflicts. The conflicts may be aggravated further by other institutions with linkages to these increased number of tourism institutions. It is recommended that the Tourism policy, existing Acts and the Tourism Bill provide for domestication of relevant regional and international treaties and convention to which Kenya is part. Further it is recommended that the tourism Policy and Law should embrace ecosystem based management since Kenya's tourism is essentially anchored on nature and its resources and mostly its biodiversity.

Although in the Seventh National Development Plan of 1994- 1996, the government policy recognized the economic contribution of mineral wealth to the economy and at the same time the need of preservations of a clean environment for sustainable mineral utilization and management this was not embraced in the mining and minerals Act and the Petroleum (Exploration and Production) Act to embrace environmental sustainability issues and ecological sustainable development. There is need to review the Acts which empower their mandates to embrace ecological sustainable development.

Growth of commerce in the East African region has necessitated expansion of port and maritime transport facilities not only to serve the country but also neighbouring landlocked states in the region. Policies and Acts created to have in place appropriate mandates for institutions to manage maritime transport and ports should be broad enough to facilitate creation of synergy with other supportive policies and Acts for sustainable management that will promote healthy environment and economic growth both at national and regional levels.

To support agricultural production in line with addressing the MDG7 and the National Food Policy which advocates for good land use for self sufficiency in food production, an integrated ecosystem based management supported by especially the Integrated Coastal Zone Management, Wetlands Policy, Land Policy and Forest Policy and their corresponding Acts have to be enforced. This is essential noting also the fragile nature of the coastal areas being variably arid to semi arid in nature and that poor management can lead to collapsed agricultural production. Policies and Acts to support appropriate technological advances in sustainable agricultural production and environment management in the prevailing environmental conditions and climate variability are required and appropriate monitoring, control and surveillance are enforced.

**Madagascar:** The gaps and recommendations for improving the application of an LME approach in Madagascar include but not limited to:

- Harmonization of existing laws and policies to improve and reduce fragmentation;
- Amendments to fisheries legislation to allow greater community involvement in designation and management of marine resource;
- Adoption of comprehensive legislation on ICZM
- Strengthening local capacity for good governance;
- Update the legislation on all relevant sectors so as to address the emerging issues;
- Application of science based Governance so as to improve decision-taking
- Human resources capacity building especially on judiciary and surveillance ??



**Mauritius:** Mauritius and Seychelles have jointly extended their seabed in the Mascarene bank and plateau. Plateau. In 2010, the governments of Mauritius and Seychelles signed a Memorandum of Understanding for the setting up of a Joint Management Council. Further, Mauritius has made a submission for the extension of the sea bed east of Rodrigues Island. However, there are pending negotiations on Chagos Archipelago, including Diego Garcia, between Mauritius and United Kingdom and also on Tromelin Island between Mauritius, Seychelles and France. There is presently no ocean management policy developed. MOI envisages the formulation of an ocean management policy in the coming 5 years. The recent ICZM framework study commissioned by the Ministry of Environment and Sustainable Development has made a recommendation to amend the MZA 2005 to incorporate:

- *to provide for the authorization and regulation of the construction, operation and use of any installation or structure within the territorial sea, internal waters, archipelagic waters and historic waters of Mauritius;*
- *to require that specified activities may not be carried out within the maritime zones of Mauritius except within an area that has been leased for that purpose and in accordance with that lease;*
- *to prescribe offences and penalties in relation to the matters dealt with in the regulations provided that the penalties do not exceed the maximum penalties specified in section 28.*

The Fisheries and Marine Resources Act 2007 (amended in 2008) is the legal tool administered by the Ministry of Fisheries. It provides a holistic framework ensuring sustainable methods of exploitation of marine resources. The Act consolidates the management, conservation and protection of fisheries and marine resources, and the protection of marine ecosystems within the Republic of Mauritius and its territorial waters. The key gaps and needs identified include, the need for a fisheries Master Plan and development of fisheries management plans for lagoon and off-lagoon fisheries and improvement in MPAs, development of sea cucumber and coral farming in the lagoons. Other needs include implementation of the National Plan of action against IUU including the improvement in fishing licensing, and capacity building in all aspects of fisheries management.

Tourism in Mauritius is guided by Tourism Act 2004, Tourism Authority Act (2006), Environment Protection Act 2002, The Finance and Audit (Tourism Fund) Regulations 2003 (GN no. 195 of 2003,) The Tourism Employees Welfare Fund Act 2002. These legal instruments indicate the multifaceted nature of the tourism industry requiring many actors to work together synergistically. The gaps that exist in the tourism sector include the assessment of the carrying capacities,, monitoring of impacts of tourism development, the need for focusing on regional tourism by marketing Mauritius as a stop-over destination, additional legislation that will guide other activities such as surfing and the non-formal tourism sector. Need to establish Environment Management Systems, audits and verification in hotels and IRS. Further the need to develop an ecotourism strategy to promote inland tourism and ease pressure on the coastal zone.

There is no formal report that indicates that Mauritius has oil and gas within its territory including its EEZ. However, India and Mauritius had signed a Memorandum of Understanding to cooperate in the exploration for oil and gas in Mauritian EEZ.

Like tourism, there are several pieces of legislation that guide the establishment and management of parks and wildlife conservation. The gaps that have been identified include, limited technical, financial and human resources at the level of institutions dealing with conservation, preservation, protection and management of biodiversity resources and overlapping institutional mandate in the case of Forestry Services and National Parks and Conservation Service. In 2010, an Integrated Coastal Zone Management (ICZM) strategies, policies and guidelines have been finalised and approved by the Cabinet of Ministers. Implementation is underway. The ICZM approach has contributed towards rallying the stakeholders towards common understanding and goals. The gaps in ICM include:

- Absence of systematic monitoring programme for the coastal zone
- Knowledge gaps in certain aspects pertaining to Coastal Zone Management, e.g., nutrient enrichment and chemical (pesticides) runoff

Agriculture is a complex sector. There are 23 pieces of legislations of direct relevance and aiming at promoting sustainable agriculture. The key ones are Sugar Efficiency Act 2005, Chemical Fertilisers Act 1980, Dangerous Chemical Control Act 2004, Cane Planters and Millers Arbitration and Control Board Act 1973, Board of Agriculture, Natural Resource Act 1977, Agricultural Chemists Act 1979, Genetically Modified Act 2004, Forests and Reserves Act, Plant Protection Act 2006 and so on. Identified gaps as it relates to ecosystem management of marine and coastal resources include capacity to formulate climate resilient policies for agriculture including food crops and livestock. to buffer overexploitation of marine resources and unsustainable agricultural practices in certain cases. Needs to promote Sustainable Land Management practices

**Mozambique:** Although Mozambique has concluded the delineation of its EEZ boundaries with Tanzania the same has not been concluded with the other neighbours. Therefore, there is a strong and urgent need for establishing maritime borders, with Comoro, France (Mayotte and Europe), Madagascar and South Africa in order to minimize existing and mainly potential conflicts related to economic use of coastal and marine resources, like fisheries, and, very recently, hydrocarbon exploration and exploitation.

The Fisheries Law, which is presently under revision, sets out the legal framework for fisheries management in Mozambique. It defines the type of fisheries according to fishing zone, complexity of used vessels and their autonomy and used fishing gears as subsistence, artisanal, semi-industrial, industrial, scientific research and experimental, and recreational and sport. The challenges include, the turnover of the fisheries sector within the government structure (in the last 35 years, it changed 4 times) mainly when it was aggregated with the agriculture sector, affected heavily the progress achieved for more than 16 years. Further, MPA and aquatic conservation is not mandated to the Ministry of Fisheries and this affects the use of MPAs as a management and conservation tool for fisheries. Mozambique has ratified UNCLOS Straddling Stocks and Highly Migratory Fish, and adhered to International Agreement on Conservation and Management Measures of High Seas Resources, meaning that all other neighboring countries would be advised to do so. For effectiveness of these instruments it is recommended that regional bodies, like SADC, SWIOFC, EAC and IOTC to adopt these international instruments into agreed regional legally binding protocols.

Although the Tourism Law, in its Article 3 c) addresses the need for harmonious and balanced development by guarantying mechanisms of inter-sectoral participation and articulation, this has not always been the case, resulting in conflicts. Therefore, it is extremely important to institutionally address adequately inter-sectoral coordination and articulation, where the Ministry for Coordination of Environmental Affairs (MICOA) should play a coordinating and impartial role for adequate and balanced development of the country.

The high turnover of the mineral resources sector within the government structure (in the last 35 years, it changed 6 times) affects the continuity of progress achieved at a particular time. The creation of the National Oil Institute is a way to increase the resilience of this sector from changes in government structure and for keeping a continuous progress on oil and gas issues.

Although many existing legal instruments, within this oil and gas sector address environmental aspects, the huge investments that are taking place in Tete Province and along the coast call for the increase and improvement of technical capacity (which is presently very low) to monitor their environmental impacts, within the Ministry for Coordination of Environmental Affairs (MICOA) and other related institutions.

From the analysis of the existing legal documentation it is obvious that the creation of conservation areas is mainly driven by tourism purposes, than the conservation of natural resources in its broad sense. Although it is a huge contribution for conservation, it raises some concerns since other areas which could not be attractive for tourism could be left out, and other areas attractive for tourism forced to be conservation areas unnecessarily. Transboundary conservation areas are reality on land, following the history of conservation in Mozambique, but still not existing on the coast and at sea, although biological studies carried out support their establishment in North (in the boarder with Tanzania) and in South (in the boarder with South Africa).

With regard to ICZM, the Environmental legislative framework can be considered adequate mainly in relation to pollution and conservation aspects, however, national strategies and/or policies related to integrated coastal zone management (the most important developing and conflicting area within the country) are lacking. This aspect should be urgently addressed.

Coordination role of MICOA is still weak, although coordination mechanisms exist at higher levels, namely CONDES (National Council for Sustainable Development), which is headed by the Prime-Minister and includes the Ministers of the Ministries related directly or indirectly to the use of Natural Resources, in part (i) because sometimes MICOA itself confuses its coordination role from that of implementation (which is for the other Ministries); (ii) on other side, because coordination is not an easy task at all (traditionally, sectoral ministries embark on the implementation of their sectoral plans); and (iii) also because at the technical level, there are not strong, permanent and continuous coordinating mechanisms and finally the lack of human, technical, material and financial resources affects greatly the full enforcement of the existing legislative framework.

**Seychelles:** Seychelles and Mauritius have submitted a joint extension of the sea bed. However, Seychelles has yet to delineate its EEZ boundaries with Comoro, Tanzania, Madagascar and

France. Concerning Tanzania the main negotiations have now been completed except for a minor agreement concerning the tri-points where the three neighboring States (Seychelles-Comoros-Tanzania) meet, which needs to be settled. As for the Comoros negotiations are still on-going concerning the median line. Negotiations to delineate the EEZ boundaries with Madagascar have not progressed as the latter cannot confirm it's availability. Negotiation with France and/or Mauritius concerning the island of Tromlin is still pending whilst sovereignty over this island is being sorted out between France and Mauritius.

There is lack of monitoring and enforcement of the domestic fisheries regulations. In this respect there is a need for the local laws to be harmonized and for the local enforcement agencies – SFA, NPA, Coast Guard, the Police and the AG's Office to work in closer cooperation. For this to happen there is need to build capacity. The Fisheries Act of 1986 is being revised and this provides an opportunity for inclusion of other pressing emerging issues.. The issue of fishing License application and issuance is one that demonstrates lack of harmonization and coordination between the Licensing Authority (LA) and Seychelles Fishing Authority (SFA). Capacity building is needed in all areas of the fisheries governance.

Negative impacts of tourism developments include inappropriate land use and zoning, destruction of natural habitats, malfunctioning of sewerage plants, continued sale of marine souvenirs and use of large amounts of natural resources such as water and fossil fuels. These weaknesses have mainly occurred due to the lack of an overall detailed master plan for tourism and land use in Seychelles. As a result appropriate policies, practices and monitoring systems have not been developed coupled with a poor understanding by operators and tourism officers on environmental issues.

Integrated coastal management need to take into account rapid urbanisation and growth and competing demands on coastal zones land use by different sectors in particular housing, agriculture and tourism. The new Land Use Plan is currently being developed and it must be ensured that these issues are adequately addressed in there.

The involvement of the public in coastal management matters in the Seychelles remains relatively low. The public display of Class I EIA reports for a period of 2 weeks is compulsory as required by the Environment Protection Act and EIA Regulations. This low turnout is often related to the perception of the public that the decision regarding the developments have already been made and that the meetings are only a formality. A second cause for the low participation is a lack of information dissemination and the fact that coastal communities are not organised into groups at the district level. This is slowly changing with the creation of CBOs and the involvement of NGOs at community level. Their increased involvement in decision making should be promoted.

Other gaps identified in the sectors of oil and gas, Parks and wildlife conservation and portscoastal agriculture and forestry include:

- Oil exploitation can potentially create a disturbance to local ecosystems, both for the physical (biocoenosis) and the biotic aspects (biotype). Mastering these effects requires not only monitoring, but also human and financial resources to do so.

- Currently there exists no coherent network or “system” of MPAs but rather a collection of Marine Protected Areas which address diverse objectives; and have no unifying strategy. However, a diversity of management bodies is in principle good as it allows for focused management initiatives taking into account the local communities and stakeholders
- The mandate of the two main Agencies responsible to manage the MPAs, i.e. the SNPA and the SFA is quite distinct and offers a limited leeway for harmonization;
- Revision and updating of the legislation concerning protected areas should be done in a holistic and comprehensive manner taking into account all aspects of the legislation on Biodiversity and taking into account the IUCN categories and guidelines (Domingue *et al.* 1999)
- The current infrastructure at the commercial port in Victoria is inadequate, not only is the quay too small and gives rise to congestion but modern loading and unloading facilities are lacking compared to regional port like Port Louis in Mauritius
- There is the need to improve the planning, coordination and monitoring capacities of SNPA and DOE to enable them to fully benefit from the available external support and the national opportunities for increased mobilization of NGO and private sectors for conservation and sustainable utilization of forest resources.

**Somalia:** Stretching over 3,330 kilometres, Somalia has the longest coastline of continental Africa and is part of one of the most important large marine ecosystems in the Indian Ocean. The presence of a narrow continental shelf in this region along the Western Indian Ocean coupled with an upwelling makes this area one of the most productive in the Indian Ocean and an important breeding ground for many migratory fish species (Oduori *et al.* 2009).

The Republic of Somaliland unilaterally declared its independence in 1991, and has its own central bank and currency and conducts its own foreign and domestic policies. Although as yet unrecognized internationally, it has remained relatively stable and has achieved notable progress in democratization and development (Yassin 1981).

Unlike Somaliland, the autonomous Puntland State of Somalia positions itself as a regional entity in a future federal state. Puntland conducts its own foreign and domestic policies but has no central bank or currency of its own. Arid and sparsely populated, Puntland is the least economically developed region, but like Somaliland is relatively stable, and has developed its own (albeit embryonic) system of governance.

South-Central Somalia has most of the economic potential, notably in the Juba and Shabelle river basins and the major trading ports of Kismayo and Mogadishu. Clan rivalries and intense competition for economic resources have prevented the emergence of a regional administration in South-Central Somalia, which cannot be assigned a meaningful geopolitical identity in the same way as Somaliland and Puntland.

In Somalia natural resources are the basis of livelihood security and thus the foundation for economic growth and development. The objectives of the Somali Government policy on fisheries development are to maximize fish production and income there from, consistent with a sound fishery plan (Christy 1980). These objectives consider both the input or cost and the

output or revenue. As the country is not endowed with other natural resources, the policy makers view fisheries as a source of food, employment, and earner of foreign exchange in the future.

The establishment of public finance management, and the development and implementation of revenue generation and collection policies and frameworks, lie at the heart of macroeconomic policy for Somalia and are strongly supported by the international community.

**South Africa:** South Africa has yet to agree on the EEZ boundaries with Mozambique. South Africa has not adopted several of the conventions related to marine and freshwater resources and marine pollution related conventions such as the Convention on the Conservation and Management of Fishery Resources in the South East Atlantic, 2001 (signed in 2001, not ratified), Convention on the Protection of the Underwater Cultural Heritage, 2001 (neither signed nor ratified), Revised Protocol on Shared Watercourses in the Southern African Development Community Region, 2003, Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (neither signed nor ratified) and International Convention on the Control of Harmful Anti-Fouling Systems, 2001 (neither signed nor ratified)

The South African Marine Living Resources Act 18 of 1998 includes a set of principles whose underlying tenet is sustainable utilization and/or ecosystem based management. The question arises as to why this principle is not implemented in practise? Part of the answer may be to do with lack of capacity. The Marine Living Resources Act provides for a fisheries management mechanism, empowering the Minister to declare fisheries management areas, for the management of identified species (sect 43). The Minister may in addition approve a plan for the conservation, management and development of the fisheries in question. The Department of Fisheries should be encouraged to include an Ecosystem Based Approach in these fisheries management area plans. The application for the allocation of fisheries quotas could be made the subject of an environmental assessment and this could include the requirement that the effect on the ecosystem in question be taken into account prior the allocation of the quota.

South Africa has enacted a progressive National Environmental Management Act: Integrated Coastal Zone Act (24 of 2008) which rests on the foundation that the coastal ecosystem is a dynamic area and management decisions should be undertaken on a holistic basis. It provides a model for other legislation and it is recommended that an ecosystem approach be adopted in other legislation, for example planning laws.

South Africa is party to a number of Regional Fisheries Management Organizations (RFMOs). Of particular relevance are: the Western Indian Ocean Tuna Organization (WIOTO), and the South West Indian Ocean Fisheries Commission (SWIOFC). It is recommended that South Africa promote an Ecosystem Based Approach ('EAB') in these regional fora.

It is recommended that an Ecosystem Based Approach be put on the respective inter-governmental committees known as MINTECs (Ministerial Technical Committees) and MINMECs (Provincial Ministerial Advisory Committees). There is much room to strengthen both institutional and law enforcement capacity in South African government agencies. This is the final recommendation.

**Tanzania:** Tanzania is negotiating with Mozambique, Comoro and Seychelles on the delineation of the EEZ boundaries at the meeting point. Tanzania has quite a number of laws which provide for legal and institutional frameworks that adequately address coastal and marine resources and environment management. Although financial and human resources have constrained them from operating in their full capacity, yet they complement each other. In the long run they will be allocated sufficient funds to enable them to improve their enforcement operations. Tanzania is still in the process of implementing reforms in its legal sector. Old and outdated laws are repealed and replaced by new ones. The current trend in the enactment of new laws indicates a great likelihood that there will be very strong enforcement machinery.

The major recommendations for the effective application of the ecosystem based approach are:

- There is need for the Tanzania Government to establish coordination and monitoring institution in order to enhance its effective governance of its coastal and, marine areas.
- There is need for building the capacity of coastal districts to align well with the central government especially on coastal and marine issues. This could be done through training (Strategic Planning) and awareness raising to district policy makers on the importance of such alignment.
- Marine fisheries and Environmental issues are not union issues - each side of the Union is dealing with these issues separately in spite of them occurring in the same geographical setting. Both Mainland and Zanzibar Governments have different policies, laws, regulations and plans that are not harmonized. This situation creates some difficulties and confusion to resource users and management. There is a need to harmonize those policies and laws for effective governance and at the same time reduce unnecessary conflicts that are common every day.
- Marine resource theft at sea, IUU, Dynamite fishing, Piracy, drowning of mariners and oil spill are some of the threats and challenges to Tanzania coastal and marine areas. Most of the responsible institution lack capacity to deal with these challenges. Either, they don't have the right and appropriate equipment, trained personnel or plan to deal with those existing challenges. It is recommended to build institutional and individual capacity of responsible institutions and personnel in order to halt the existing alarming situation.
- Incomes obtained from licensing legal businesses related to Mangroves, prawn fishery, deep sea fishery, natural gas, marine transport, etc., to a large extent are all and always directed to the central government with less or non to the local government or community directly. This licensing system makes the local Government become weak in doing its business at local level because it lacks the financial capacity to deal with management issues of those coastal and marine resources. It is important if the distribution of these incomes can be adjusted to enable the local governments to cope with rising management challenges at local level.
- There is a need to constantly raise the knowledge and awareness on the importance of coastal and marine system to all stakeholders using different means. Use of several and different media like radio, TV, theatre arts, posters, electronic media etc., are among of the recommended means to enhance knowledge and awareness to many stakeholders. As such there is need to revive the semi- annual retreats and coastal and marine forums to enable the practitioners share and knowledge and experience on coastal and marine issues.



## 5.3 National Governance Frameworks

### 5.2.4 Institutional Structure

The countries of the WIO region have the three pillars of government practiced by most of the democratic systems in the world – The legislative, executive and Judiciary. The institutional setting varies according to the historical background. Ministries that are responsible for management of marine and coastal resources are those responsible for local government, fisheries, environment, tourism, agriculture, forestry, mining, gas, oil, marine transport, and their associated technical institutions such as training and research institutions, environmental councils meteorological centers, universities etc. The Western Indian Ocean Marine Science Association (WIOMSA) has a comprehensive database on the research and academic institutions. In all the countries there is no single ministry or institution that is solely responsible for marine and coastal issues. The national structures are replicated at sub national level normally under the ministry responsible for local government

There are also non-ministerial government entities that work independently of Ministers to whom they are nevertheless accountable. These include parastatal organizations, state companies, councils, boards, authorities and corporations. These organizations carry out set functions within a government framework with a varying degree of operational independence and are managed by the Chief Executive. These bodies exercise executive, administrative, commercial or regulatory functions. They are public institutions that deliver services for the Government, but they do not set the policy required to carry out their functions, as these are determined by the Ministry or Department that oversees the agency. Their assets are the general property of the state and their employees are public service employees.

### 5.4.2 National institutional frameworks

A particular feature and potential strength is that all the countries which are subject to this study have one or more national government institution for the environment and or natural resource management. Their area of jurisdiction can be broad, such as environmental management, natural resource management or conserving biodiversity (resources and PADH), or more specific, such as regulating (water) pollution and waste management. But invariably a number of institutions are involved. Thus, for example in South Africa, there is a national Department of Environmental Affairs and Tourism, a separate department of Water Affairs and Forestry, provincial departments of nature conservation in the (nine) provinces and parastatal bodies such as the South African National Biodiversity Institute (SANBI) charged with the study and conservation of biodiversity. Another example is the Seychelles, where the Ministry of Environment and Natural Resources is the parent ministry to a number of sub-agencies including the Marine Park Authority, the Solid Waste and Cleaning Agency, the Seychelles Fishing Authority, and pollution control. In Tanzania the National Environmental Management Council (NEMC) established under the Environmental Management Act of 2004 plays a regulatory and enforcement role on similar matters, while the Department of Environment is responsible for the review of strategic environmental assessments and hazardous waste management. In Mauritius, there is a National Environment Commission which is chaired by the Prime Minister and has the power to set national objectives and goals and determine policies and priorities, as well as reviews progress made by public departments, local authorities and other government organizations.

A strength revealed in the Regional Synthesis Report on Policy, Legal and Institutional Frameworks (UNEP/Nairobi Convention Secretariat and WIOMSA, 2009b) is that all the countries, with the possible exception of Somalia (but excluding the Somaliland region), have a national government institution championing the environmental impact assessment process. Thus for example in Kenya the National Environmental Management Authority (NEMA) is charged with implementing the EIA process and reviewing the completed EIA reports. However, when it comes to land-based marine pollution and degradation, the position is more complex. For example in Kenya, the Coast Development Authority (CDA), established under the CDA Act (Chapter 449) focuses primarily on coastal regional development and hosts the ICZM Secretariat. Its mandate is to coordinate coastal development programmes in Kenya but the country has no land-based marine pollution legislation or regulations in place. In Tanzania, the National Environmental Standards Committee of the Tanzania Bureau of Standards sets water quality standards which in the case of LBSA are gazetted by the Minister responsible for the Environment. The nine national river basin authorities in Tanzania are charged with implementing them in the respective basins. This illustrates the fact that in many countries there are a number of national agencies which are (potentially) involved with land-based marine pollution and that attention needs to be paid to the development of effluent and/or marine environmental quality standards.

The survey reveals that in general there tends not to be a lead agency championing the notion of integrated coastal area management, including taking the lead in designing and implementing regulations on land-based sources of marine pollution. The priority then is for each country to identify which government institution should be charged with leading regulation on marine pollution activities. In the longer term, the ideal is for each country to have a dedicated coastal agency or a coastal and marine desk/department within an existing institution such as the environmental affairs department.

Conversely, a particular weakness in virtually all the countries is that there is no dedicated government agency charged with the marine environment and marine resources along the lines of the National Oceanographic and Atmospheric Authority (NOAA) in the USA. This often results in the fragmentation of matters pertaining to marine and coastal waters. Thus for example in South Africa, the Department of Environmental Affairs (DEAT) is charged with marine fisheries (Division: Marine and Coastal Management), the Department of Water Affairs and Forestry (DWAF) is charged with estuarine management and land-based sources of marine pollution, the Department of Transport (with the parastatal South African Maritime Safety Authority (SAMSA)), is charged with shipping and prevention and combating oil and hazardous waste spills.

### **Inter-Ministerial Committees**

Implementation of Integrated Coastal management (ICM) started from 1993 when Ministers of Environment from WIO region met in Arusha, Tanzania to deliberate on the strategy for implementation of Chapter 17 of Agenda 21 of the UNCED. Since then countries of WIO region are progressing towards developing national policies, legislations and strategies for the implementation of ICM. The implementation of ICM calls for the establishment of Inter-

Ministerial Committees to oversee the integration of actions to achieve sustainable use of marine and coastal resources. The status of these ICM Committees varies from country to country.

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

Kenya has developed a policy on Integrated Coastal Zone Management (GOK-MENR 2010). Section 55 of EMCA (1999) mandates the National Environment Management Authority (NEMA) to coordinate and implement the ICZM policy. However this should be done in cooperation with other institutions whose policies and mandates directly or indirectly offer synergy in promoting ICZM policy for appropriate integrated management approach to promote sustainability. The policy call for the establishment of an ICZM Committee to facilitate the coordination, as such NEMA has constituted an ICZM Steering Committee. The committee draws its membership from lead government agencies, NGOs, private sector and community groups. The main function of the Committee is to provide technical guidance and advise on the development and implementation of the ICZM Framework to address issues concerning the coastal and marine environment.

The National ICZM Committee for Mauritius was established since 2002. The National ICZM Committee has been established under the Environment Protection Act 2002, thus it has a legal standing. The National ICZM Committee is chaired by the Director of Environment and the Secretariat is ensured by the ICZM Division, Ministry of Environment & Sustainable Development. Meetings are convened as Chairperson thinks fit under the Annual Budget of the Ministry of Environment & Sustainable Development.

Madagascar has established an ICZM Inter-Ministerial Committee, The Committee has been established under the decree “arrêté n° 2169/2009 of February 12th, 2009” signed by the Prime Minister, stating its creation, organization and functioning. The Mandate of the Committee is to ensure coordination and promotion of integrated coastal zone management including the implementation of the objectives of the Action Plan. The Committee is subdivided into three thematic Groups – ICZM Development and Integration; Pollution and Degradation; and Ecosystem Management and Socio-economic and Social Development. Each Thematic group holds its meeting depending on needs – the Ecosystems Management Thematic Group meets once a month. The ICM Inter-ministerial Committee is provided budget by the Government of Madagascar.

Mozambique has established an ICM Committee and is operating at National Level. The CTIGC (Inter-Institutional technical committee for coastal management) advises the Technical Committee of CONDES (which is chaired by the Deputy Minister of Environment). This is the organ that advises directly CONDES, which is chaired by the Prime Minister and composed by the relevant Sectoral Ministers.”

The CTIGC (ICM) advises the CONDES on matters related to conservation & development of the Coastal Zone and ICZM framework development. The Secretariat is under the Ministry for the Coordination of Environmental Affairs (MICOA), at the National Directorate of Environmental Affairs (DNGA). The CTIGC's Technical Council meets every Tuesday at the beginning of each month in the sector institutions. The CTIGC's extraordinarily meets whenever convened by the CTIGC's President. There is no government budget to support the holding of the meetings

Traditionally coastal zone management in Seychelles has been the responsibility of the Department of Environment and in particular the Division responsible for Pollution Control and Environment Impact Assessments. Seychelles is in the process of drafting the third ICZM plan which is the EMPS. The EMPS Committee is well established since the year 2000 and still running and the Secretariat of the committee comprises of 1 Executive Secretary, 1 technical expert and 1 accountant. There is no specific budget for the committee, but certain activities like workshop are being financially supported projects.

Although Somalia has not established an ICM Committee, the possible composition will include: Minister of Fisheries Marine Resources and Environment; Minister of Agreculture, Livestock, Range and Forestry; Minister of Information, Post and Tourism; Minister of Air, Land and Marine Transport; Minister of Interior and National Security and Minister of Defence.

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

The Department of Water Affairs and Environment (DWE) administers the Integrated Coastal Management Act, 24 of 2008 (ICM Act) as well as the National Environmental Management Act 108 of 1998 (NEMA) Chapter 6 of the Coastal Management Act requires that each of the three spheres of government have to develop coastal plans for their respective spheres:

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

The Tanzania National Integrated Coastal Environmental Management Strategy (NICEMS) was launched in 2003. NSC-ICM provides policy oversight and guidance on the overall vision of the ICM activities in the country. The Permanent Secretary responsible for Environment is the Chair to NSC – ICM. Integrated Coastal Management Team serves as the backbone of a national ICM network to practitioners (local and national). We have the Inter-sectoral working groups (Core working group, Science and technical working group and Issue specific working. Last meeting of NSC-ICM was 2008 though supposed to meet twice annually. NSC-ICM was formally funded by Tanzania Coastal Management Partnership (TCMP). Currently the strategy is under minor review, and there is a need to support and speedup strategy review process at national level.

#### **5.4.1 National legal and policy frameworks**

From a constitutional perspective, it is noted that the systems of government vary between the different national jurisdictions of the WIO. Thus, some of the countries have a unitary form of government (particularly the island states) where administration is centralized, with the notable exception of Comoros where government is decentralized, each of the three islands having their own ministries and departments. Governments of the mainland states range from being centralized to a form of (quasi) federal system of government where administration in some sectors is decentralized.. South Africa has a quasi-federal state where nine provinces, including the four coastal provinces, exercise significant powers and where functions are divided between national, provincial and local authorities in line with the constitutional imperative of cooperative governance. The position in Tanzania, officially the United Republic of Tanzania, is somewhat complicated. In 1964 it became a unitary state comprising of the island of the former Peoples' Republic on Zanzibar and the former Republic of Tanganyika. The constitution distinguishes between Union and non-Union matters. Thus 'environment' is a non-Union matter resulting in separate laws and administrative authorities for Zanzibar (which also includes the sister island of Pemba) and the mainland. The same applies for marine fisheries where the island and mainland have separate laws and authorities but where an additional act, the Deep Sea Fishing Act is common to both and is a Union matter.

A growing trend in countries of the region is that of decentralization, especially in the context of managing the coastal zone. Mauritius, and Madagascar are moving towards devolving powers to the provinces (No 21 of The Courier (ACP-EU) Nov 2003). Tanzania is also in this process by granting greater powers to district councils, while in Mozambique the coastal provinces have considerable power, especially in issues relating to coastal zone management and artisanal fisheries.

Analysis of the legal and policy frameworks as found in individual country reports reveals more or less the following eight key sectoral areas from which laws, institutions and policies can be examined: fisheries and aquaculture, agriculture and forestry, tourism, mining, (mainly terrestrial but to some extent off-shore oil and gas activities), industry, transportation, energy production, coastal development and urbanisation. The Synthesis Report (UNEP/Nairobi Convention Secretariat and WIOMSA, 2009b) identified these sectors and analysed their national legal and policy frameworks from a constitutional, regulatory framework, adoption of international conventions, policy and institutional perspective. From a governance perspective, the key legal issues concern the existence of environmental provisions in the constitution, the existence of a

framework environmental act, including environmental assessment provisions, and at least a policy promoting the notion of integrated coastal area management. These are now examined in turn.

### *Constitutional frameworks*

The constitutional legal frameworks of the WIO countries have been broadly shaped by their respective colonial past. Thus the constitutional governance structures of former British colonies such as Kenya and Tanzania have their roots in the British Westminster system of parliamentary democracy. Conversely, those countries which fell under European colonial masters such as Mozambique or Seychelles have constitutional structures which are continental European in nature; yet others for example Mauritius, have a blend of both British and continental systems.

With the advent of independence in African countries including those of the WIO region, most WIO countries adopted more modern forms of constitutional frameworks. These have to some extent been influenced by the United States model of incorporating a Bill of Rights. However, the United States' Bill of Rights includes only civil and political rights, meaning that the state must guarantee certain fundamental rights and freedoms such the right to vote, freedom of assembly, expression etc, and not to interfere with such rights. Modern day constitutions tend to also include socio-economic rights such as the right to health care or a right to a decent environment. The latter imposes a positive duty on the state rather than merely requiring it to desist from interfering with fundamental rights and freedoms. Clearly this is more socialist in nature.

The African Charter on Human and Peoples' Rights, which is a regional treaty encouraging the adoption of human rights principles by states in the African region includes socio-economic rights among its articles as well as a right to a healthy environment in article 16. At the national level South Africa was a pace-setter in the African context as regards environmental rights with its new constitutional dispensation in 1994 that included an environmental right in its Bill of Rights. Two other countries in the WIO region have also adopted such environmental rights in their constitution, as depicted in see Table 5-12. This is significant when seen in the context of the fact that no other developing nations have such rights in their constitution, though some medium developed countries do, as for India and Brazil. It is difficult to assess the practical impact is of these relatively young rights but it is safe to say that at the very least they given greater prominence to environmental issues in the national context, including those described in this report. As such the inclusion of an environmental right sets in place the overall environmental governance framework for individual countries.

- Table 5-12 Inclusion of an environmental right or related provisions in the Constitutions of the ten WIO countries and their nature.

Country	Environmental Right	Brief description
Comoros	No	n/a
Kenya	No	n/a
Madagascar	No	n/a
Mauritius	No	n/a
Mozambique	Yes	Everyone has a right to live in a balanced environment; duty to protect environment imposed on the people and Government.
Réunion	Yes	Contains a special 'Charter for the Environment' (2004)
Seychelles	Yes	Citizens have the right to clean and safe environment; State to ensure a safe and clean environment.
South Africa	Yes	Everyone has an environmental right; state to enact laws in this regard
Somalia	Not known	Not known
Tanzania	No	n/a

#### *Framework environmental act and/or environmental assessment legislation*

A related and also relatively recent trend is for countries to adopt framework environmental legislation. Such an Act can include basic environmental management principles such as the 'polluter pays' and precautionary principles. In addition, the Act could include specific and all-important environmental assessment provisions. Such umbrella legislation would also invariably establish governmental environmental institutions and set out their powers and objectives. Environmental concerns are by their nature cross-cutting, overlapping with the activities of most government departments, so that it is imperative for countries to have in place legislation and instruments to ensure that environmental considerations are taken into account in all aspects of governance. The environmental assessment procedure is a key instrument in this regard. Most WIO countries have enacted framework environmental legislation and/or environmental impact assessment legislation. In particular, Somalia has a weak and fragmented environmental legislative framework, attributable to the civil war and to the relative autonomy of the Somaliland and Puntland regions. Each of these coastal regions developed a basic coastal and marine policy framework in 2000 that includes environmental assessment and related issues (van der Elst, *pers com*). Reunion too has well developed environmental assessment legislation, especially relating to LBSA in the coastal zone

#### *Water Quality and pollution-related laws and/or policies*

Many of the WIO countries have in place effluent discharge standards incorporated in legislation or accompanying regulations to combat freshwater pollution. In some countries, as is the case in South Africa, these are set in the context of Receiving Water Quality Objectives (RWQOs) (RSA DWA, 2004). South Africa has gone further by developing environmental quality objectives and targets (EQO/Ts) for the coastal marine environment. These are provided for four types of uses of coastal marine waters, namely protection of aquatic ecosystems (e.g. conservation), recreational use, marine aquaculture and industrial use (e.g. seawater intake for hydro-cooling).



A diverse range of water quality and use legislation exists with numerous institutions responsible for ensuring water quality and thus implicitly coastal water quality (see Table 5-13).

- Table 5-13 Water (Quality) Act and potential key national land-based marine pollution government institutions.

Country	Water (quality) Act	Coastal water quality institution
<b>Comoros</b>	Loi No. 94-018 du 2 Juin 1994	Direction Nationale de L'Environnement (DNE)
<b>Kenya</b>	Water Act 2002	Water Services Regulatory Board Water Services Boards
<b>Madagascar</b>	Loi No. 90-033) Relative a la Charte de L'Environnement Malagasy of December 21 1990	L'Organe de Lutte contre l'Evènement de Pollution Marine par les Hydrocarbures Comité Interministériel de l'Environnement Conseil National de l'Environnement
<b>Mauritius</b>	Environmental Protection Act 2002 amended by Act 6 of 2008 Central Water Act 1971 Canal and Rivers Act 1868 Wastewater Management Act 2001	National Environment Commission Director of Environment National Environmental Laboratory
<b>Mozambique</b>	Law 495/73 6 Oct, Pollution of Waters, Beaches and Margins Law no. 16/91, of 3 of August, Water Law	National Council of Water Regional Water Authorities
<b>Seychelles</b>	Environment Protection Act (EPA) 1994 Public Utilities Corporation Act, 1985	Ministry of Environment and Natural Resources; Public Utilities Corporation
<b>Somalia</b>	n/a	n/a
<b>South Africa</b>	National Water Act 1998	Department of Water Affairs (DWAF)
<b>Tanzania</b>	Environment Management Act 2004	Department of Water Resources (Ministry of Water and Irrigation) National Environment Management Council

### *Integrated Coastal Zone Management (ICZM) laws and/or policies*

In examining legal and policy frameworks, a particular priority area which emerges from this governance review is the notion of Integrated Coastal Zone Management (ICZM). Worldwide the trend is for coastal states, including islands, to promote the concept of integrated coastal area

management. At the time of writing, ICZM has been adopted in some WIO countries (see Table 5-14).

- Table 5-14 Adoption of Integrated Coastal Zone Management policies laws and/or institutions in the WIO.

Country	Coastal policy	Coastal area legislation	Coastal management institution
Kenya	Policy prepared	Yes	National Environment Management Authority (NEMA) Coast Development Authority (CDA)
Tanzania	Yes	Yes	National Environment Management Council (NEMC)
Mozambique	Yes	Yes	Ministry for the Coordination of Environmental Affairs (MICOA)
South Africa	Yes	Yes	Department of Environmental Affairs and Tourism (DEAT) – Marine and Coastal Management (MCM)
Comoros	Yes	Yes	Direction Nationale de l'Environnement (DNE)
Madagascar	Yes	Yes	Comite National des Zones Marins et Cotieres
Mauritius	Yes	Yes	Ministry of Environment and National Development Unit (MOE) - ICZM Department
Seychelles	Yes	Yes	Department of Environment (DOE)
Somalia	Basic policy developed in some regions	No	n/a

It evident from the above that most countries, in particular South Africa, Kenya and Tanzania, have formally moved towards developing policies, laws and institutions promoting Integrated Coastal Zone Management (ICZM). On the other hand, environmental management policies laws and institutions in the small island states are by their nature all concerned with coastal and marine issues to a greater or lesser degree. Be that as it may, there have been a number of developments and regional initiatives, and organizations formed, to further ICZM. These include:

- The Arusha Resolution (April 1993) on Integrated Coastal Zone Management in Eastern Africa including the island states. This is a soft law declaration which focuses on the promotion and monitoring of long-term regional impacts caused by climate change; adaptation to, and planning for, the effects of sea-level rise in the coastal areas; formulating an inventory of potential hotspots in the region (shoreline changes, coastal erosion, land-based and marine sources of pollution, coral reefs and associated ecosystems); and the establishment and strengthening of regional measures of forecasting and early warning capabilities to deal with natural disasters.

- The Pan African Conference on Sustainable Integrated Coastal Management (PACSICOM, Maputo, July 1998) was a conference which further drove this particular process and ICZM more generally in the region (see also section 5.3.4);
- The African Process on Protection, Management and Development of the Marine and Coastal Environment, adopted the portfolio of actions arising from PACSICOM; and
- The Cape Town Conference (December 1998).
- Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries – RECOMAP. This EU funded programme is implemented under the auspices of the Indian Ocean Commission (IOC) and focuses on improving the integrated management of the coastal zone, its biodiversity and resources, primarily motivated by the need to improve the living conditions of coastal people. RECOMAP includes seven countries (Mauritius, Madagascar, Seychelles, Comoros, Kenya, Tanzania and Somalia. There are seven explicit outputs, all aimed at strengthening coastal zone management frameworks in the region ([www.recomap-io.org](http://www.recomap-io.org))

An important institution in this regard is NEPAD-COSMAR referred to in section 5.3.3 above.

### **7.3 Regional and International Management and governance**

A number of international and regional conventions, and the work of related institutions, are relevant to meeting the increasing challenge posed by land-based sources and activities that cause pollution and degradation of the marine environment in the WIO region. The two main international conventions are the United Nations Convention on the Law of the Sea and the Nairobi Convention (introduced in section 5.1.1). These are described below, with brief details of other relevant conventions. These must also be seen in the context of the broader array of relevant ‘soft laws’, which, together with the relevant institutions, provide an international and regional framework to help protect and conserve the marine and coastal environment in the WIO region.

#### *UN Convention on the Law of the Sea (UNCLOS)*

The first concerted effort to regulate marine pollution generally, and land-based marine pollution specifically at the international level, emerged with the adoption of the 1982 UN Convention on the Law of the Sea (UNCLOS). Part XII (Articles. 192 to 237) of UNCLOS is devoted to “Protection and Preservation of the Marine Environment”. Of particular relevance are articles which impose an obligation on States to protect and preserve the marine environment (Article 192); a duty imposed on states to take measures that are necessary to prevent, reduce and control of the marine environment (Article 194) and specifically Article 207, headed “Pollution from Land-based Sources”, which obliges states to:

- (1) ...adopt laws and regulations to prevent reduce, and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines, and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures
- (2)...
- (3) States shall endeavour to harmonise their policies in this connection at the appropriate regional level.
- (4) States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce, and control pollution of the marine environment from [?] land-based sources...

A further potentially relevant article is Article 198 entitled “Notification of imminent or actual damage” because of its potential linkage to the Nairobi Convention Emergency Protocols. It states:

“When a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organizations”

All ten countries that are parties to the Nairobi Convention are also parties to the 1982 UNCLOS. UNCLOS however only sets the framework to encourage governments to address the impacts on the marine environment from land-based sources and activities as its provisions are by their nature framed in broad terms. Thus, further initiatives have been taken at international level to deal with land-based sources specifically as now outlined.

*UN Convention on the Law of the Non-Navigational Uses of International Watercourses 1997 (the ‘International Watercourses Convention’)*

The International Watercourses Convention is particularly relevant to the five terrestrial WIO countries given the aridity of the region and the likelihood that the problems associated with drought, PADH and so on, are likely to be exacerbated by climate change. The Convention obliges watercourse states to protect, preserve, and manage international watercourses and their waters (Art. 1(1)), and specifically to protect and preserve watercourse ecosystems (Article 20). It defines ‘watercourse’ as “a system of surface waters and ground waters constituting by virtue of their physical relationship a unitary whole and normally flowing in a common terminus”; an ‘international watercourse’ is defined as “a watercourse, parts of which are situated in different states”(Articles 2(a) & (b)). Article 3 of the Convention encourages the adoption of watercourse agreements at a regional level and to this end a South African Development Community (SADC) Water Protocol, later a Revised Water Protocol, was adopted (as outlined in section 5.3.2). The convention goes on to oblige states to prevent, reduce and control pollution, in particular in harmonising their policies. The measures advocated include setting joint water quality objectives and criteria, establishing techniques and practises to address pollution from point and non-point sources, and establishing lists of substances whose introduction is to be prohibited, limited, investigated or monitored (Article 21).

It is evident that the Convention is especially relevant to the five mainland WIO states particularly with respect to combating marine pollution from land-based sources and PADH. More generally the boundaries of eleven of the SADC countries straddle fifteen major perennial and ephemeral river basins (Pallet, 1997) while fifteen major rivers are shared between the different SADC countries on the sub-continent.

#### *Nairobi Convention*

The central and key convention of regional significance is the 1985 Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, (the ‘Nairobi Convention’). Originally it included two protocols: the Protocol Concerning Protected Areas and Wild Fauna and Flora in the East African Region (the ‘SPAW Protocol’) which is particularly relevant to PADH in the region and which is elaborated on below,

and secondly, the Protocol concerning Co-operation in Combating Marine Pollution in Cases of Emergency (the 'Emergency Protocol'). The Convention and its two Protocols were adopted in 1985 and has been in force since 30 May 1996 when the necessary number of ratifications/signatories was obtained. South Africa was not an original signatory in 1985 but acceded to the Convention and associated Protocols on 16 May 2003. Thus a particular strength of the Convention is that it has achieved 100 % ratification by all signatories which is a rare achievement for a regional or international convention.

The Convention provides a framework for regional cooperation in the protection, management and development of the WIO region's marine and coastal environment, for sustainable socio-economic growth and prosperity. The Preamble recognises "the threat to the marine and coastal environment, its ecological equilibrium, resources and legitimate uses posed by pollution and by an insufficient integration of an environmental dimension into the development process..."; it goes on to acknowledge: "the need for co-operation amongst themselves and with competent regional and international organizations in order to ensure a coordinated and comprehensive development of the natural resources of the region...". Of specific relevance to this report is the fact that the Convention under the heading 'Pollution from Land-based Sources' states:

The Contracting Parties shall endeavour to take all appropriate measures to prevent, reduce and combat pollution of the Convention area caused by coastal disposal or by discharges emanating from rivers, estuaries, coastal establishments, outfall structures or any other sources within their territories.

Article 4(1) of the Convention headed 'General Obligations' goes on to state:

The Contracting Parties shall, individually or jointly, take all appropriate measures in conformity with international law and in accordance with this Convention and those of its protocols in force to which they are party, to prevent, reduce and combat pollution of the Convention area and to ensure sound environmental management of natural resources, using for this purpose the best practicable means at their disposal, and in accordance with their capabilities.

The remaining sub-articles of Article 4 go on to oblige contracting parties to cooperate in the formulation of protocols, to cooperate with the competent international, regional and sub-regional organizations, to harmonise policies in this regard and to assist each other in fulfilling their obligations under the Convention (Article 4(2) to (5)).

The SPAW Protocol's relevance to PADH stems from its recognition of "...the danger from increasing human activities which is threatening the environment of the Eastern African region", and "...that natural resources constitute a heritage of scientific, cultural, educational, recreational and economic value that needs to be effectively protected..." (Preamble to the Protocol). Article 2 elaborates by providing for a general undertaking that the parties "...shall take all appropriate measures to maintain essential ecological processes and life support systems, to protect genetic diversity, and to ensure the sustainable utilization of harvested natural resources...[and] shall endeavour to protect and preserve rare or fragile ecosystems as well as rare, depleted, threatened or endangered species of wild fauna and flora and their habitats in the Eastern African region. The Convention then lists the 'Protected species of wild flora', 'Species of wild fauna requiring special protection', 'Harvestable species of wild fauna requiring protection' and 'Protected migratory species' in four separate annexes, and provides for appropriate protection for each category (Articles 3 to 6 respectively). It also provides for specific protection measures (Article 10),

Publicity and Notification (Article 14), Public Information and Education (Article 15), Regional Co-operation (Article 16) and related provisions.

The sister to SPAW, the 'Emergency Protocol' is relevant to pollution of marine and coastal waters, primarily geared to combat oil pollution from ships. Though it specially defines 'oil', it is clearly not limited thereto as it also defines 'harmful substances'. (The equivalent protocol in the western African Abidjan Convention is limited to oil). Moreover, various articles refer to 'marine pollution incident' which is defined as '...a discharge or spillage of oil or other harmful substance into the marine environment, or a significant threat of such a discharge or spillage...of a magnitude that requires emergency action...'. This would clearly cover a land-based disaster or a threat thereof, such as a chemical outflow from an industrial plant, a serious spill of chemicals at a coastal mining site, or from inappropriate or accidental drilling chemical or waste disposal at sea. The Protocol obliges parties to cooperate (Article 3), exchange information (Article 4), and provide mutual assistance (Article 6). As such, it seems clear that the necessary regional law is in place, providing for disasters but the governance question remain whether national frameworks are in place to practically deal with such disasters.

A third (draft) Protocol on LBSA to the Nairobi Convention was presented by the Nairobi Convention secretariat to the fifth conference of parties (COP5) in November 2007 in Johannesburg, South Africa. The development of this Protocol is a tacit acknowledgement of an existing legal gap to confront the increasing challenge and severity of land-based sources and activities causing pollution and degradation of the marine environment in the WIO region. More specifically, it is currently being developed as a result of calls by the Conference of Parties (COPs) of the Nairobi Convention made in 1999 in Nairobi, and subsequently by COP 3 (Maputo, 2001), COP 4 (Antananarivo, 2004) and COP5 (Johannesburg, 2008). These called upon the Executive Director of UNEP to expedite the process of revision of the Nairobi Convention and its protocols as well as the development of the LBSA Protocol in the context of a more general initiative calling for the review of the Convention and its protocols. This would bring them up to date as modern and dynamic legal instruments better suited for the protection and conservation of the marine and coastal environment in the WIO region. The new LBSA Protocol is expected to be officially adopted by the Governments of the region during a meeting of plenipotentiaries to be held during the 6<sup>th</sup> COP to the Nairobi Convention in March 2010.

The management of the Nairobi Conventions is broad-based, and besides the core secretariat staff based in Nairobi, the Convention is guided by the governments of the region through a network of national focal points and thematic experts groups. The premier decision-making organ of the Nairobi Convention is the Conference of Parties (COP) - a biennial meeting that brings together the Ministers of Environment and technical experts from all the countries that are party to the Convention. The Ministers of Environment are represented in the technical meetings of the Convention by senior government officers in a forum referred to as the Forum of Focal Points. The Forum provides over-arching policy direction and coordination to the programmes implemented by the Convention secretariat.

On the institutional side, the Convention has two offices: the secretariat is based at the UNEP headquarters in Nairobi, Kenya, and a Regional Coordinating Unit (RCU) is based in the Seychelles. The UNEP-based secretariat works closely with the Seychelles unit, and is

responsible for providing overall technical coordination, planning and developing the work programme of the Convention and monitoring the progress in its implementation. Meanwhile, the RCU based in the Seychelles is responsible for activities geared towards enhancing political visibility for the Nairobi Convention, and resource mobilization. The responsibilities of the Convention are therefore split into: (a) programme coordination based in Nairobi and (b) inter-governmental political coordination based in the Seychelles. Task forces and Working Groups under the Nairobi Convention provide a means for collaboration and cooperation between partners in addressing urgent technical issues within the scope of the Convention. The Legal and Technical Review Task Force; the Coral Reef Task Force, the Group of Experts for Marine Protected Areas in Eastern Africa (GEMPA-EA); the Physical Alteration and Destruction of Habitats (PADH) Task Force, The Municipal Wastewater (MWW) Task Force, the EIA Task Force and the Working Group on Water, Sediment and Biota Quality provide technical inputs to all organs of the Nairobi Convention.

#### *Other international conventions*

Having provided a brief overview of the main international and regional conventions which shape governance of sources of marine pollution in the WIO region the main international and regional inter-governmental frameworks and institutions are now turned to. Those related to, and those directly relevant to land-based sources in the region include:

- Convention on the Non-Navigational Uses of International Watercourses based on the articles drafted by the International Law Commission, adopted by the UN General Assembly 1997 (“Watercourse”)
- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (“London”)
- Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972), 1996
- International Convention for the Prevention of Pollution from Ships (1973/78). (“MARPOL”)
- Convention on Biological Diversity, 1992 (“CBD”)
- Convention on Persistent Organic Pollutants, 2001 (“Stockholm”)
- Convention on the Prior Informed Consent Procedure for certain Hazardous Chemicals and Pesticides in International Trade, 1998 (“Rotterdam”)
- African Convention on Conservation of Nature and Natural Resources, 1968 (“African Nature”)

#### *Status of ratification of international conventions*

The nine international conventions described above embrace a broad range of issues and responsibilities that would appear to ensure sustainable utilization of the marine and aquatic resources and environment of the WIO region. However, assent to the terms and responsibilities of and thus signatory to the conventions is not uniform throughout the region, though in general there is widespread inclusion (see Table 5-6).



- Table 5-6 Key conventions relevant to LBSAs and ratification status in each WIO country

CONVENTION	Comoros	France (La Réunion)	Kenya	Madagascar	Mauritius	Mozambique	Seychelles	Somalia	South Africa	Tanzania
UNCLOS 1982	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Watercourses 97	No	n/a	No	No	No	Yes	No	No	Yes	No
London 1972	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
MARPOL 73/78	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
CBD 1992	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Stockholm 2001	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Rotterdam 1998	No	Yes	Yes	Yes	-	No	Yes	No	Yes	No
Nairobi 1985	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
African Nature 1968/2003	Yes	Yes	Signed	Yes	Yes	Signed	Yes	Signed	Yes	Signed

### Regional multi-lateral Agreements

The ASCLME region has a number of regional multi-lateral agreements and bodies (Table 20) such as the Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention) with its Regional Coordinating Unit (RCU) in Nairobi, Kenya ; the South Western Indian Ocean Fisheries Commission (SWIOFC) with its Commission based in Harare, Zimbabwe and the Intergovernmental Oceanographic Commission Regional Committee for the Investigations in the North and Central Western Indian Ocean (IOCINCWIO) coordinated by IOC-UNESCO in Paris. The expanded regional agreements include the Indian Ocean Tuna Commission (IOTC) based in Seychelles and the recently negotiated Southern Indian Ocean Fisheries Agreement (SIOFA) facilitated by FAO. Regional Economic Commissions include the Southern African Development Community (SADC) based in Gaborone, Botswana; Common Market for Eastern and Southern Africa (COMESA) based in Lusaka, Zambia and the Commission of Indian Ocean Islands (COI) based in Mauritius; and the Coastal and Marine Sub-programme of the African Union's New Economic Partnership for African Development (NEPAD) based in Midrand, South Africa.

Table 20: Western Indian Ocean Intergovernmental agreements

Type	Agreement
Intergovernmental Agreements	The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (The Nairobi Convention)
	Indian Ocean Tuna Commission (IOTC)

	South west Indian Ocean Fisheries Commission (SWIOFC)
	South Indian Ocean Fisheries Agreement (SIOFA)
	<b>Indian Ocean MOU on Port State Control</b>
<b>Regional Economic Organizations</b>	African Union
	The Southern African Development Community (SADC)
	The Common Market for Eastern and Southern Africa (COMESA)
	The East African Community (EAC)
	Indian Ocean Commission (COI/IOC)

Further, the countries of the region are parties to a range of relevant international agreements (Table 21) 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 of efforts and to conflicts, resulting in unsustainable management of the marine and coastal resources.

Table 21: International Agreements to which WIO Region Countries are party

Category	Multi-lateral Agreements
Marine related	<p>Convention on Wetlands of International importance especially as Waterfowl Habitat (RAMSAR 1971)</p> <p>Convention on the prevention of pollution from Ships (1973), as modified by the Protocol of 1978 (MARPOL)</p> <p>United Nations Convention on the Law of the Sea (UNCLOS), 1982</p> <p>Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related protocols (Nairobi Convention), 1985</p> <p>Jakarta Mandate on Marine and Coastal Biological Diversity, 1995 (programme of action)</p> <p>Convention for the Regulation of Whaling, 1946</p> <p>International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969</p> <p>Protocol of 1976 to amend the CLC (PROT-CLC), 1976</p> <p>International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND), 1971</p> <p>Protocol amending the (FUND- PROT), 1976</p> <p>Convention for the Safety of Life at Sea (SOLAS), 1974</p> <p>Convention on the International Regulations for Preventing Collisions at Sea, 1972</p>

Category	Multi-lateral Agreements
	<p>Convention on Load Lines, 1966</p> <p>Convention on Standards of Training and Certification of Watch Keepers (STCW), 1978</p> <p>Agreement on the Organization for Indian Ocean Marine Affairs, 1990</p> <p>Agreement for the Establishment of the Indian Ocean Tuna Commission, (Established under Article XIV of the FAO Constitution), 1996</p> <p>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</p>
<b>Biodiversity related</b>	<p>African Convention for the Conservation of Nature and Natural Resources (Algiers Convention), 1968; Revised African Convention (Algiers Convention), 2003</p> <p>Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), 1973</p> <p>Convention on Biological Diversity (CBD), 1992</p> <p>Bonn Convention on Migratory Species (CMS), 1994:</p> <p>African-Eurasian Waterbird Agreement (AEWA), the largest agreement developed so far under CMS</p> <p>The Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South East Asia (MT-IOSEA)</p> <p>Cartagena Protocol on Biosafety, 2003</p> <p>International Plant Protection Convention, 1971</p> <p>Revised text on International Plant Protection Convention, 1990</p>
<b>Atmosphere related</b>	<p>United Nations Framework Convention on Climate Change (UNFCCC), 1992</p> <p>UNFCCC Protocol, Kyoto, 1997</p> <p>Vienna Convention for the Protection of the Ozone Layer, 1985</p> <p>Montreal Protocol on substances that deplete the Ozone, 1987</p> <p>Amendment to the Montreal Protocol (London), 1990</p> <p>Amendment to the Montreal Protocol (Copenhagen), 1992</p> <p>Amendment to the Montreal Protocol (Montreal), 1997</p> <p>Amendment to the Montreal Protocol (Beijing), 1999</p> <p>African Nuclear Weapons Free Zone Treaty, 1996</p>
<b>Chemicals related</b>	<p>Stockholm Convention on Persistent Organic Pollutants, 2001</p> <p>Basel Convention on the Control of Transboundary Movement of Hazardous Wastes, 1989</p> <p>Rotterdam Convention 1988</p> <p>Bamako Convention on the Ban of the import into Africa and the control of transboundary movement and management of hazardous wastes within Africa, 1991</p> <p>Ban Amendment to the Basel Convention, 2005</p>
<b>Other Agreements</b>	<p>New Economic Partnership for Africa's Development (NEPAD), 2001</p> <p>Agenda 21 and Johannesburg Plan of Implementation, 2002</p>

Category	Multi-lateral Agreements
	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

Type	Agreement
	The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (The Nairobi Convention)
Category	Multi-lateral Agreements
Marine related	<p>Convention on the High Seas, 1958</p> <p>Convention on Wetlands of International importance especially as Waterfowl Habitat (RAMSAR 1971), 2001</p> <p>Convention on the prevention of pollution from Ships (1973), as modified by the Protocol of 1978 (MARPOL)</p> <p>United Nations Convention on the Law of the Sea (UNCLOS), 1982</p> <p>Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related protocols (Nairobi Convention), 1985</p> <p>Jakarta Mandate on Marine and Coastal Biological Diversity, no date (programme of action) (sic)</p> <p>Convention for the Regulation of Whaling, 1946 (sic)</p> <p>Convention on Fishing and Conservation of the Living Resources of the High Seas, 1958</p> <p>Convention on the Territorial Sea and Contiguous Zone, 1958</p> <p>International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969</p> <p>Protocol of 1976 to amend the CLC (PROT-CLC), 1976</p> <p>International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND), 1971</p> <p>Protocol amending the (FUND- PROT), 1976</p> <p>Convention for the Safety of Life at Sea (SOLAS), 1974</p> <p>Convention on the International Regulations for Preventing Collisions at Sea, 1972</p> <p>Convention on Load Lines, 1966</p> <p>Convention on Standards of Training and Certification of Watch Keepers (STCW), 1978</p> <p>Agreement on the Organisation for Indian Ocean Marine Affairs, 1990</p> <p>Agreement for the Establishment of the Indian Ocean Tuna Commission,</p>
	Coastal Environment of the Eastern African Region (The Nairobi Convention)
	Indian Ocean Tuna Commission (IOTC)
	South west Indian Ocean Fisheries Commission (SWIOFC)
	South Indian Ocean

Category	Multi-lateral Agreements	
	(Established under Article XIV of the FAO Constitution),. The agreement w concluded in 1993 and came into force in in 1996 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and othe Weapons of Mass Destruction on the Sea Bed and the Ocean Floor and in th Subsoil thereof, 1971	Fisheries Agreement (SIOFA)
<b>Biodiversity related</b>	African Convention for the Conservation of Nature and Natural Resources (C Convention), 1968; Revised African Convention (Algiers Convention), 200 Convention on International Trade in Endangered Species of Wild Flora and (CITES), 1973 Convention on Biological Diversity (CBD), 1992 Bonn Convention on Migratory Species (CMS), 1994: African-Eurasian Waterbird Agreement (AEWA), the largest agreement dev so far under CMS The Conservation and Management of Marine Turtles and their Habitats of 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	
<b>Atmosphere related</b>	United Nations Framework Convention on Climate Change (UNFCCC), 199 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	
<b>Chemicals related</b>	Stockholm Convention on Persistent Organic Pollutants, 2001 Basel Convention on the Control of Transboundary Movement of Hazardous 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 Ban Amendment to the Basel Convention, 2005	
<b>Other Agreements</b>	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	
<b>Others</b>	Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Water, 1963 Convention for the Protection of the World Cultural and Natural Heritage, 197 Convention on the Prohibition of Military or any other Hostile Use of Environ Modification Techniques, 1977	
<b>Intergovernmental Agreements</b>		
		<b>Indian</b>

Category	Multi-lateral Agreements
	<b>Ocean MOU on Port State Control</b>
<b>Other Regional Intergovernmental Agreements/Conventions</b>	African Union
	The Southern African Development Community (SADC)
	The Common Market for Eastern and Southern Africa (COMESA)
	The East African Community (EAC)
	Indian Ocean Commission (COI/IOC)

Further, the countries of the region are parties to a range of relevant international agreements (Table 22) 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 of efforts and to conflicts, resulting in unsustainable management of the marine and coastal resources.

Table 22: International Agreements to which WIO Region Countries are party

The status of ratification of these conventions and agreements by the WIO Countries is presented in Appendix V. These are a significant number of instruments to bring challenges to the countries if strategies are not put in place to ease their implementation.

### **Regional Intergovernmental Secretariats**

### ***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 a 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 catalyzed 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.

The Contracting Parties of the NC meet every two years and are assisted by a Bureau of the Chair Person, three Deputy Chair Person, and a Rapporteur and their function is to assist the Secretariat in decision making during the intercessional period.

The implementation of the Nairobi Convention has faced a number of problems and challenges that have affected its performance. These include inadequate financial resources and lack of capacity for implementing the Nairobi Convention, and its Protocols and Action Plan. However, regular Contracting Party meetings and other associated activities have provided an opportunity for the countries to exchange ideas, a factor which has influenced the direction of national actions in relation to the management of coastal and marine environment. The establishment of the EAF/RCU in Seychelles has strengthened the Nairobi Convention and related protocols in a number of ways. It has, for instance, encouraged the ratification of the Convention and the regular holding of meetings of the Contracting Parties that has led to the increased contribution by the contracting parties to the Trust Fund. It has also helped develop and update the programme of action and provide a regional framework for the implementation of regional and global action plans of conventions such as the Convention on Biological Diversity and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. The later has led to the development and signing of the LBA protocol

### ***SWIOFC Secretariat***

The governing body of SWIOFC is the Commission. It is composed of all Members. Meetings of the Commission are held at least once every two years. The Commission has established a Scientific Committee to consider the state of fisheries in the area of competence and to advise on the scientific basis for possible regulatory measures to be considered for adoption by the members of the Commission. The Commission may establish on an ad hoc basis such other committees or working parties as it may consider necessary on problems of major importance or of a specialised nature. The Commission has established one working party on fisheries data and statistics. The Secretariat is provided by FAO Subregional Office for Southern Africa (SFS). It is based in Harare, Zimbabwe. SWIOFC is a member of the Regional Fishery Body Secretariats Network that meets biennially. 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 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<sup>5</sup> .

As such the Scientific Committee was established to focus on fisheries data collection and on 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.

### ***IOTC Secretariat***

Membership of IOTC is open to Indian Ocean coastal countries and to countries or regional economic integration organisations which are members of the UN or one of its specialized agencies and are fishing for tunas in this ocean. Sessions of the Commission are normally held annually. The officers of the Commission are elected from the delegates or alternates present at Commission meetings and hold office for a biennium. Sub-commissions will be open to those Contracting Parties which are coastal States lying on the migratory path of the stocks concerned in the sub-commission or are States whose vessels participate in the fisheries of these stocks. They will provide a forum for consultation and cooperation on matters related to the management of the stocks concerned. In particular, they will examine management options and recommend to the Commission appropriate management measures. To date, no sub-commissions have been constituted. These bodies will become necessary when the Commission has determined that management of certain stocks is needed.

The Scientific Committee was formally created at the First Session of the Commission. This body will advise the Commission and sub-commissions on research and data collection, on the status of stocks and on management issues. The meetings of the Scientific Committee are held conjointly with those of the Commission. Working Parties are established by the Scientific Committee and endorsed by the Commission. The primary function of the Working Parties is to analyse in more detail, technical problems related to the management goals of the Commission. For example, Working Parties related to the different species analyse the status of the stock and offer options to the Scientific Committee for management recommendations to the Commission

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<sup>5</sup> Source FAO Press Release <http://www.un.org/News/Press/docs/2005/sag356.doc.htm>



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.<sup>6</sup>

### ***SIOFA***

The Secretariat for SIOFA is in the process of establishment. 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 Union. 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. SIOFA has not come into force. With the expected signing of Australia, the Agreement will come into force and is expected to have the same institutional structure as SWIOFC or IOTC, being a Regional Fisheries Management body.

There is overlap between areas of application of SIOFA and the IOTC, however 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. Further there issues with regard to coming into force of SIOFA which include:

- a) The 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).
- d) 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.”<sup>7</sup>

## **Secretariats of Other Intergovernmental Agreements**

### ***African Union***

The African Union consists of 53 African states, including all the ASCLME states. Established on 9 July 2002, the AU is a successor to the Organization of African Unity (OAU). The most important decisions of the AU are made by its assembly, 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.

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<sup>6</sup> <http://www.iotc.org/files/misc/performance%20review/IOTC-2009-PRP-R%5BE%5D.pdf>

<sup>7</sup> Alex Rogers, Robin Warner and Gail Lugten, *IUCN Indian Ocean Seamounts Project: Institutional and Legal Gap Analysis*, 2010.

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.

Although all these Specialized Technical Committees have a bearing to the work of ASCLME Project and SWIOFP, the most relevant is the Specialized Technical Committee on Rural Economy and Agricultural which oversees AU-IBAR. The AU has only started addressing issues on fisheries and related LMEs.

### ***The Southern African Development Community (SADC)***

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 Madagascar, Mauritius, Mozambique, Seychelles, South Africa, and United Republic of Tanzania which are WIO countries.

In response to the threat of IUU fishing, the SADC ministerial conference in Windhoek culminated in Ministers of the respective fisheries departments of eight of the coastal SADC states signing a 'statement of commitment' (SoC) to halt IUU fishing in the region.<sup>8</sup> However, this action has not contributed to increasing the capacity of SADC Secretariat for implementation of the commitments to stop IUU fishing. Hence the capacity of SADC Secretariat for coordinating coastal and marine resources is still very weak

### ***The East African Community (EAC)***

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

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 European Union. Of specific interest to the ASCLME region are Articles 15 and 16 of the Protocol which provide respectively for the cooperative management of coastal and marine resources and of fisheries. The main weakness of the EAC is the capacity to address marine and coastal issues

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<http://www.commonwealthfisheries.org/admin/downloads/docs/SADC%20Statement%20of%20Commitment%20on%20IUU%20Fishing%20040708.pdf>

### ***Indian Ocean Commission (IOC)***

The Indian Ocean Commission (IOC) was created in 1984 by the General Agreement of Victoria, Seychelles. 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. The Commission is currently administering projects worth some 62 million Euros;<sup>9</sup> 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. 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. A Regional Working Group has been established the Nairobi Convention for the drafting of a new Protocol on Integrated Coastal Zone Management (ICZM). The Secretariat of COI is based in Mauritius.

### ***Common Market for Eastern and Southern Africa (COMESA)***

COMESA Agreement was signed on December 8th 1994, thus replacing the old PTA Agreement. Currently COMESA does not address issues of marine and coastal. It is expected that in the future COMESA like other RECS will address marine and coastal economic based activities

### **Regional Non-Governmental Organizations/Bodies (NGOs)**

#### ***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, and established in 1993. 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.

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 including: Forum of Heads of Academic/Research Institutions in the WIO regions (FARI)

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<sup>9</sup> For its funded projects see <http://www.coi-ioc.org/index.php?id=167>

Socioeconomic Monitoring Network, Western Indian Ocean (SocMon WIO)

***WWF East African Marine Eco-Region (WWF-EAME)***

Building on the WWF East African Marine Ecoregion Programme, the WWF's Coastal East Africa initiative aims to catalyze opportunities to create lasting transformational change – change that will ensure that the region's natural capital positively contributes to people's livelihoods and economic development. The initiative focuses on three key areas:

- Strengthening institutions and policies
- Promoting responsible trade and investment
- Addressing emerging threats and adopting best practices

The initiative is coordinated from WWF Offices based in Dar es Salaam

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

The Coral Reef Degradation in the Indian Ocean Initiative initiated in 1999 (and now Coastal Ocean Research and Development in the Indian Ocean (CORDIO) 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.

***Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean (WIO-C):*** The Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean (WIO-C) was officially launched at the Fifth Meeting of the Contracting Parties to the Nairobi Convention held in Johannesburg, South Africa in November 2007. The founding members included a group of like-minded international and regional organizations and agencies who wished to work together to support partnerships that advance marine research, conservation and management in WIO region. Founding members of the WIO-C included IUCN, WCS, WIOMSA, WWF, EAWLS, CORDIO, IOC, IOC-UNESCO, Nairobi Convention and NEPAD-Cosmar. Other organisations such as Birdlife International, Wetlands International, Blue Ventures, Rare and TNC have since then become full members of the Consortium. The objective of the WIO-C is to align, harmonize, and move forward marine and coastal management activities within the context of a regional and country level framework. WIO-C's vision is that the Western Indian Ocean's unique and globally significant natural resource base provides the essential goods and services that support biodiversity as well as economic development and the livelihoods of present and future generations.

WIO-C's Mission is to achieve a healthy marine and coastal environment that sustainably supports people's livelihoods in WIO-region.

In order to achieve the above, the WIO-C undertakes to:

- Support synergy in programmes of work on marine and coastal ecosystem management and promote knowledge and information sharing amongst stakeholders in the Western Indian Ocean region.
- Provide a mechanism for non-governmental entities to anchor activities in the Nairobi Convention and other intergovernmental and regional processes and thus strengthen harmonization and alignment

The main activities of the WIO-C are intended to focus on networking, coordination, lobbying, decision support, resource mobilisation, and programme development and implementation.

### ***The Western Indian Ocean Coastal Challenge (WIO-CC)***

The WIO-CC was first proposed by President James A. Michel, Government of the Seychelles, in 2007 as a “platform to galvanize political, financial and technical commitments and actions at national and regional levels on climate change adaptation, promoting resilient ecosystems (marine and coastal resources), sustainable livelihoods, and human security”. To realize this broad objective extensive consultations have been held over the past three years among regional government representatives, members of intergovernmental organizations, multilaterals and non-governmental organizations facilitated through the Global Island Partnership (GLISPA) and often hosted by the Government of the Seychelles at significant international meetings including the United Nations Framework on the Convention for Climate Change (UNFCCC) and the Convention of Biological Diversity (CBD) Conferences of the Parties (COP).

The concept of the WIO-CC is to mobilize countries that share the ocean’s vast and resource rich waters and coasts to come together and commit to action towards island (and more recently WIO coastal states) conservation and sustainable livelihoods including responses to the threat posed by climate change, including ecosystem based adaptation over the next twenty years. With a focus on coastal and marine zones, the WIO-CC will build on the long-standing efforts of regional organizations including the Indian Ocean Commission and Nairobi Convention by focusing on the following:

- Countries and territories at both the development and implementation level with a focus on local and national needs and priorities
- Strengthening and aligning with existing conventions, strategies, action plans, networks, and partnerships as the basis for action
- Broader coastal zone management approach to ensure sustainable coastal economies and communities and safeguard the resilience of the region’s marine and coastal ecosystems”
- Evidence and science-based approaches to integrated coastal zone management

The concept of the WIO-CC is based on other similar regional high-level political tangible commitments in Micronesia, the Coral Triangle and the Caribbean, which have been able to leverage extensive global attention and resources, and are recognized as a credible mechanism for advancing conservation of island biodiversity.

Following on from the extensive consultations carried out over the last three years, the next step was to operationalize the Challenge through the creation of a Regional WIO – CC Platform under the leadership of the Seychelles. This Platform was launched during the 1<sup>st</sup> Regional Technical Meeting held in Seychelles in March 2012. The Platform and the actions needed to move forward in operationalizing the WIO - CC will initially (in the short-term) be supported as part of implementation of the SIDS Mauritius Strategy with funding from the European Union (ISLANDS Project). In addition, support has been provided from the ongoing WCS ABCG-funded project on ‘undertaking a stocktaking exercise to identify gaps, opportunities, and lessons learned for marine and coastal resources conservation and management, with a focus on climate

vulnerability and adaptation, in the Western Indian Ocean’, which has as one of its key outputs for 2012, the establishment of a partnership between the WIO – C and the ISLANDS project (based at the IOC) for the implementation of two of the ISLANDS project flagship activities: operationalization of the WIO-CC, and the Coral Reef Task Facility. An important element of this process is to ensure the full participation of both SIDS and Eastern African nations (who are currently not supported through the ISLANDS project).

#### ***South Indian Ocean Deep Sea Fishing Association (SIODFA)***

South Indian Ocean Deep Sea Fishing Association (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 by catch 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.

### **5.3.2 Soft laws and related developments**

There are five important ‘soft’ laws that have been established over the last twenty years that are relevant to the WIO region. These are presented below in chronological order.

#### *Montreal Guidelines*

After UNCLOS was adopted, the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-based Sources were prepared by an expert group under the auspices of UNEP and were adopted by its Governing Council in 1984. These Guidelines represented the first attempt to address the problem of land-based pollution at a global level.

#### *Agenda 21*

One of the documents adopted at the 1992 Rio Summit was Agenda 21. Chapter 17 on the marine environment includes some key elements that focus on sustainable development and an integrated approach to the protection and preservation of the marine environment. Although Agenda 21 is a ‘soft’ law instrument and not a ‘hard’ convention, many of its provisions have laid the foundation for subsequent incorporation in ‘hard’ law as evidenced by a number of multilateral environmental agreements (MEAs) entered into over the last fifteen years.

#### *Global Programme of Action on Protection of the Marine Environment from Land-Based Activities (GPA)*

In 1995, the above developments were followed up with an inter-governmental conference in Washington, USA, dealing specifically with land-based marine pollution. Two key documents were adopted: firstly the Washington Declaration on the Protection of the Marine Environment from Land-based Activities, secondly the Global Programme of Action (GPA) ([www.gpa.unep.org](http://www.gpa.unep.org)). The GPA is a ‘soft’ law agreement reflecting the resolve of states to address the impacts of LBSA and physical degradation of the coastal and marine environments. As such it is an action-oriented programme with the over-arching goal to address the negative effects of land-based activities on the coastal and marine environment. It has a coordination office based in the Netherlands but is not an international institution. Rather, it is an inter-governmental programme that addresses the inter-linkages between freshwater and the coastal

environment and has a close working relationship with the UNEP Regional Seas Programme (RSP). Chapter 2 of the GPA (paras. 29 to 35) sets out its objectives which include the strengthening of regional cooperation agreements, such as the Nairobi Convention, and where necessary, to create new ones to support effective action, strategies and programmes ([www.gpa.unep.org](http://www.gpa.unep.org)).

The GPA has identified at least nine pollutant or source nodes across most of the UNEP's Regional Seas Programmes (RSPs). Many of these source nodes are also manifested in the WIO region and are described in the respective problem areas in section 5.2. Briefly, these include: municipal wastewater, heavy metals, litter, nutrients, oil, physical alterations and destruction of habitats (PADH), sediment mobilization and persistent organic pollutants (POPs).

The GPA assists states in taking concrete actions that produce tangible results within their respective policies, priorities and resources available. The implementation of the GPA is primarily the task of governments, in close partnership with all stakeholders, including local communities, public organizations, non-governmental organizations and the private sector. It also has initiated the drafting of LBSA protocols for at least six of the world's Regional Seas Programme treaties. As such, the GPA plays a central role in the WIO region mainly because it is active through the Nairobi Convention to help mainstream LBSA in the region. In particular, the WIO LaB is a demonstration project for the GPA, executed by the Nairobi Secretariat. The GPA is also involved in capacity building.

#### *World Summit on Sustainable Development and Johannesburg Plan of Implementation*

A further significant development was the 2002 World Summit on Sustainable Development (WSSD) held in Johannesburg. This adopted a Plan of Implementation (JPOI) which included provisions dealing with oceans, coasts and islands (Recommendations 30-36). It also endorsed the provisions of Agenda 21 (referred to above) and reiterated the importance of sustainable use and management of the marine environment in reducing poverty and achieving the goals of sustainable development ([www.un.org/esa/sustdev/documents](http://www.un.org/esa/sustdev/documents)). Furthermore, the JPOI specifically endorsed the GPA referred to above (adopted through the Washington Declaration of 1995) (Recommendation 33).

The JPOI also makes specific reference to the GPA in that it encourages its implementation and that of the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities, with particular emphasis in the period 2002-2006 on municipal waste water, the physical alteration and destruction of habitats, and nutrient pollution (paragraphs 32 and 52(e)). The JPOI also formulated a framework of actions at different levels to advance GPA implementation, in particular to:

- facilitate partnerships, scientific research and diffusion of technical knowledge; mobilise domestic, regional and international resources; and promote human and institutional capacity-building, paying particular attention to the needs of developing countries;
- strengthen the capacity of developing countries to develop their national and regional programmes and mechanisms to mainstream the objectives of the GPA and to manage the risks and impacts of ocean pollution;

- elaborate regional programmes of action and improve the links with strategic plans for the sustainable development of coastal and marine resources, noting in particular areas which are subject to accelerated environmental change and development pressures;
- make every effort to achieve substantial progress by the next GPA Conference in 2006 to protect the marine environment from land-based activities.

Finally, the Plan of Implementation calls to “effectively reduce, prevent and control waste and pollution and their health-related impacts by undertaking by 2004 initiatives aimed at implementing the GPA in small island developing states”. This would include Mauritius, Seychelles and Comoros in the present case (UNEP/GPA, 2006).

#### *UNEPs Regional Seas Programme*

Invoking of the Nairobi Convention by the GPA must be seen in the context of UNEPs Regional Seas Programme in terms of which more than a dozen regional conventions on marine and coastal waters have been adopted in various parts of the world. The first was the 1976 Barcelona Convention for the Protection of the Mediterranean Sea against Pollution. Of central relevance to the WIO is the Nairobi Convention referred to in section 5.1 and elsewhere in this report and to a lesser extent its counterpart, the Abidjan Convention, which is applicable to the west coast of Africa. These Regional Seas conventions lay down a broadly uniform pattern of principles. While these have been adopted by many coastal states, only a few have included specific protocols on preventing and combating land-based sources of marine pollution. Accordingly, the process of developing new LBSA protocols is under way, as in the 1999 Caspian Sea Convention, the 1985 Nairobi Convention and the 1983 Abidjan Convention.

### **5.3.3 Regional Economic Integration Agreements**

This section outlines the four main regional economic integration units relevant to the WIO region and especially in the context of combating marine pollution from land-based sources. All four (SADC, COMESA, the EAC and the IOC) must be seen against the backdrop of the Nairobi Convention which is the regional springboard for implementing LBSA implementation mechanisms at national levels. Table 5-7 accordingly lists the Nairobi Convention parties and depicts which other regional economic integration units each of the Nairobi Convention parties belongs to.

It is evident from Table 5-7 that there is no ideal regional economic integration unit that would be a logical vehicle to launch land-based sources of marine pollution implementation mechanisms or related instruments. Four of the WIO countries are not members of SADC including Comoros and Kenya; similarly four are not members of COMESA including South Africa and Tanzania; by its nature only three coastal countries are members of the EAC; and only the island states are members of the IOC. However, each can play a role in one way or another of at least generating political momentum behind efforts to combat land-based marine pollution. Thus for example, if the SADC, (as described in the next paragraph), had an environmental assessment protocol, it would provide the momentum for the adoption of such laws in other countries in the region. Such a framework is discussed further in the conclusion of this section.



*Southern African Development Community (SADC)*

SADC is a regional economic cooperation agreement constituted under the 1992 Treaty of the Southern African Development Community (SADC). Its origins go back further in particular to the predecessor of SADC, the Southern African Development Coordination Committee which was not underpinned by a formal treaty but was nevertheless an effective mechanism. The objective of the treaty is to “achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of southern Africa and support the socially disadvantaged through regional integration” (Article 5(1)(a)). According to the preamble, member states are committed to “coordinate, harmonise, and rationalise their policies and strategies for sustainable development in all areas of human endeavour...” and “agree to cooperate in the areas of natural resources and the environment” (Article 21(3)(e)).

On the regional scale, the SADC Protocol is the key instrument for transboundary water management. It is a framework agreement containing the generic rules for the management of shared rivers within the SADC region. Article 5, establishes the institutional set-up for the management of shared watercourses, consisting of the SADC Water Sector Organs and Shared Watercourse Institutions (SWCIs).

There are currently fifteen members of the Treaty, although this number varies from time to time as some countries have been known to interrupt their membership or new ones join the Treaty. From the 15 members, six are also members of the Nairobi Convention as shown in Table 5.7. The Table also illustrates membership and overlaps with other relevant conventions, namely COMESA, the EAC and IOC.

• Table 5-7 Membership of Nairobi and other relevant regional integration agreements.

Country	Nairobi (9)	SADC (15)	COMESA (19)	EAC (5)	IOC (5)
Angola		X			
Botswana		X			
Burundi			X	X	
Comoros	X		X		X
Djibouti			X		
DRC		X	X		
Egypt			X		
Eritrea			X		
Ethiopia			X		
Kenya	X		X	X	
Lesotho		X			
Libya			X		
Madagascar	X	X	X		X
Malawi		X	X		
Mauritius	X	X	X		X
Mozambique	X	X			
Namibia		X			
France (Réunion)	X				X
Rwanda			X	X	
Seychelles	X	X	X		X
South Africa	X	X			
Sudan			X		
Swaziland		X	X		
Tanzania	X	X		X	
Uganda			X	X	
Zambia		X	X		
Zimbabwe		X	X		

The SADC Treaty is headquartered in Gaborone, Botswana and administered by sectoral sub-committees including an Environment and Land Management sector and a Fisheries sector. There is no sector dedicated specifically to the marine environment but the Fisheries Protocol and the Shared Water Courses Protocol (Table 5-8) are relevant to the coastal and marine environment but not to land-based marine pollution directly. Similarly, there is no environmental assessment protocol governing potential transboundary pollution and impacts. The adoption of a dedicated protocol on environmental assessment in SADC along the lines of the Espoo Convention in the EU would however go a long way to adopting and harmonising environmental assessments at national level. The challenge therefore is to include at least land-based marine pollution concerns and ‘thinking’ in developing and implementing protocols whether they are to SADC or to the Nairobi Convention.

The Revised Protocol on Shared Water Courses follows from the International Water Courses Convention referred to in section 5.2 and encourages the establishment of institutions for all river

basins in the region, to be known as Permanent River Basin Water Commissions or Operating Authorities to manage shared water resources in a sustainable way.

- Table 5-8 SADC Protocols relevant to pollution of marine and coastal waters

Year	SADC Protocol
2004	Declaration on Agriculture and Food Security
2003	Revised Protocol on Shared Watercourses in the SADC Region
2001	Protocol on Fisheries
1999	Protocol on Wildlife Conservation and Law Enforcement
1997	Protocol on Mining
1996	Protocol on Energy
1995	Protocol on Shared Watercourse Systems in the SADC

Specific agreements have been entered into regarding a number of basins, while other instruments of co-operation for specific basins also exist, such as: the Permanent Joint Technical Commission between Angola and Namibia on the Kunene River Basin; the Limpopo Basin Permanent Technical Committee between Botswana, Mozambique, Zimbabwe and South Africa; the Incomati Tripartite Committee, and others. In addition, a number of multi- and bi-lateral treaties have been entered into in the SADC (including WIO countries). These are addressed in more detail in section 5.3.6.

#### *Common Market for Eastern and Southern Africa (COMESA)*

COMESA is a regional inter-governmental framework which extends from Libya to Zimbabwe. Since its inception in 1994 its objective has been to further economic integration by the removal of trade and economic barriers between member states. In that year it replaced a previous preferential trading area agreement which had existed since 1981. The focus of its vision has accordingly shifted from pure ‘economic’ integration to ‘development integration’ by ‘the attainment of a fully integrated economic community through a combination of trade development and investment promotion and co-ordination’ ([www.comesa.int/about/vision](http://www.comesa.int/about/vision)). There are currently nineteen member states within COMESA (see Table 5.7) but only Seychelles, Mauritius, Madagascar, Kenya and the Comoros are party to the Nairobi Convention, with Tanzania recently leaving the group. Consequently, COMESA is unlikely to play a central role in governance in the WIO region.

#### *East African Community (EAC)*

The East African Community is a regional inter-governmental organization now comprising five member countries: Kenya, Uganda and Tanzania, and more recently Rwanda and Burundi. It is headquartered in Arusha, northern Tanzania. Originally it was a customs union but its remit was widened under the 1999 Treaty for the Establishment of the East African Community, so that it is now a regional economic integration organization. Environmental considerations are not a priority for the EAC and with only three (continental) members of the WIO region, it has little relevance to regional marine pollution.

### *Indian Ocean Commission (IOC)*

The Indian Ocean Commission is a regional organization comprising five island states: Comoros, Madagascar, Mauritius and Seychelles and France (by virtue of its sovereignty over Reunion and Mayotte). It was established in 1984 under the General Victoria Agreement and its objectives include diplomatic cooperation, economic and commercial cooperation, cooperation in marine fisheries, agriculture, scientific, technical and cultural fields as well as the conservation of resources and ecosystems. A common area of focus of the five IOC countries is marine fisheries, to which much effort and development is targeted. Central to fisheries are a number of Fisheries Partnership Agreements (FPAs) (elaborated on in section 5.3.4). Increasingly, the IOC is also focussing on integrated coastal zone management and providing a coordinating role in a number of regional programmes that have the potential to contribute towards ameliorating LBSA. Examples include the Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries (ReCoMaP / ProGeCo) and the Maritime Highway Project that includes LBSA elements as it relates to the transport of oil and hazardous products to and from the maritime sector to land-based facilities.

### Conclusion

The above analysis reveals that the focus of these four regional economic integration units is primarily economic integration with environmental considerations mostly of secondary concern. However, trans-boundary resource management and environmental issues are indeed well accommodated in the SADC protocols, especially the Shared Waters Protocol. In light of this, it is recommended that a concerted effort be made to promote the development of a SADC environmental assessment Protocol which would include land-based marine pollution considerations. Given that it is unlikely that such a Protocol will be developed for SADC in the near future, an interim measure would be to incorporate a land-based marine pollution clause in the anticipated Nairobi Convention Protocol on Land-based Sources of Marine Pollution.

A SADC environmental assessment Protocol, if and when it emerges, could be along the lines of the Convention on Environmental Impact Assessment in a Transboundary Context, 1991 (“Espoo”) which applies to trans-boundary impact in the European context. A general obligation under Espoo is that states agree to: “take all appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impact from proposed activities” . It provides useful definitions of the terms “transboundary impact” and “environmental impact” in addition to setting out the required contents and other relevant provisions of environmental impact assessment documentation. It should be noted that a number of international agencies have well developed directives and guidelines on environmental assessment. These include the World Bank, the African Development Bank, UNEP, IUCN, and the International Association for Impact Assessment (IAIA), an international NGO active in developing environmental assessment procedures and techniques. However, it should also be noted that Article 13 of the Nairobi Convention entitled ‘Environmental Impact Assessment’ provides for environmental assessment in the following terms:

1. As part of their environmental management policies, the Contracting Parties shall, in cooperation with competent regional and international organizations if necessary, develop technical and other guidelines to assist the planning of their major development projects in such a way as to prevent or minimize harmful impacts on the Convention area.

2. Each Contracting Party shall assess, within its capabilities, the potential environmental effects of major projects which it has reasonable grounds to expect may cause substantial pollution of, or significant and harmful changes to, the Convention area.
3. With respect to the assessments referred to in paragraph 2, the Contracting Parties shall, if appropriate in consultation with the Organization, develop procedures for the dissemination of information and, if necessary, for consultations among the Contracting Parties concerned.

It is accordingly clear that the Convention already binds parties to undertake environmental assessments where there may be transboundary impacts or where there may be a significant impact on the Convention area.

A final matter which needs to be considered under this review of regional agreements is the possibility of linking both the Nairobi and Abidjan conventions to SADC, the IOC, and/or other relevant regional integration units in some way such as by an inter-governmental agreement. This could be achieved by both the Nairobi and Abidjan conventions adopting a land-based marine pollution protocol and linking this to the LME programmes described below, thereby taking into account ecological considerations.

#### **5.3.4 International and Regional Institutions**

There are six principal international institutions involved in economic development and the marine environment of the WIO. As the following descriptions reveal, their focus within the region are varied and approaches to implementation diverse.

##### *United Nations Environment Programme (UNEP)*

UNEP is a specialized UN agency constituted under a Governing Council of 59 members elected by the General Assembly and is based in Kenya. Although it an international institution, its physical location in Nairobi makes it a central player at the regional African and WIO level. It, among many other things initiated the international Regional Seas Programme (RSP) referred to in section 5.3.1 including the central convention to this report: the ‘Nairobi Convention’ and its three protocols, described in the previous section. UNEP also initiated two further RSP conventions relevant to the African region namely the Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, 1981 “Abidjan” which applies to the West Coast of Africa and the 1976/1995 Barcelona Convention which applies to the Mediterranean including North Africa.

The secretariat to the Nairobi Convention is in fact a joint secretariat with the Abidjan Convention, thus providing a platform for regional African cooperation. This agency is thus central in driving the initiative to regulate, control and coordinate land-based activities at the regional level including the development of the LBSA Protocol referred to in the introductory section 5.1.

##### *UN Development Programme (UNDP)*

The UNDP is involved by virtue of being the principle channel of multilateral, technical and investment assistance to developing countries, and includes various environmental programmes,

such as the GEF (Global Environmental Facility) which not only makes funds available to developing countries but has also initiated capacity-building programmes.

*African Ministerial Conference on the Environment (AMCEN)*

The African Ministerial Conference on the Environment (AMCEN) was established in December 1985, following a conference of African ministers of environment held in Cairo, Egypt. It meets every two years and is mandated to provide advocacy for environmental protection in Africa; to ensure that basic human needs are met adequately and in a sustainable manner; to ensure that social and economic development is realized at all levels; and to ensure that agricultural activities and practices meet the food security needs of the region.

AMCEN led the process for the development of the action plan for the Environment Initiative for the New Partnership for Africa 's Development (or NEPAD - described below). It endorsed a specific NEPAD Environment Action Plan which commenced in 2002, early on in the NEPAD initiative. This was endorsed by the African Union in the same year. The Environment Action Plan is underpinned by the notion of sustainable development in that it takes consideration of economic growth, income distribution, poverty eradication, social equity and better governance. It is organised in programme clusters and project activities to be implemented over a period of ten years. AMCEN has provided guidance in the process for the implementation of the action plan for the environment initiative of NEPAD, including its work programme for the biennium 2005-2006.

AMCEN has also prompted and encouraged the preparation of the comprehensive regional report on the state of Africa's environment, **Africa Environment Outlook (AEO)**, by the United Nations Environment Programme (UNEP). The AEO is an instrument for monitoring and reporting on the environment. Additionally, AMCEN successfully facilitated the revision of the 1968 African Convention on the Conservation of Nature and Natural Resources (Algiers Convention). Current measures are being taken to strengthen the linkages between AMCEN and the region's two marine and coastal conventions, namely, the Nairobi Convention and the Abidjan Convention. The UNEP Regional Office for Africa has served as the secretariat to AMCEN since its inception.

*New Partnership for Africa's Development (NEPAD)*

NEPAD is a vision and programme of action for the collective development of the African continent, formulated by African leaders through the African Union and adopted in October 2001. It is a comprehensive integrated development plan that addresses key social, economic and political priorities for the sustainable growth of Africa. The goals of NEPAD are broad and include: to promote accelerated growth and sustainable development, eradicate widespread and severe poverty and halt the marginalization of Africa in the globalization process.

Relevant to land-based impacts on the ocean is the fact that NEPAD has developed an environmental Action Plan to address priority environmental issues. A framework for the action plan was endorsed by the African Ministerial Conference on the Environment (AMCEN) in 2002 and by the African Union later in the same year. The framework proposes four strategic directions: (1) capacity building for environmental management; (2) securing political will to address environmental issues; (3) mobilizing and harmonizing international, regional and

national resources, conventions and protocols; and (4) supporting best practice and pilot programs. The Action Plan is organized in programme clusters and project activities to be implemented over an initial period of ten years. The environmental initiative identifies programme areas that cover, among others, the following priority sectors and cross-cutting issues: combating land degradation, drought and desertification, wetlands, invasive species, marine and coastal resources, cross-border conservation of natural resources and climate change. The Action Plan builds on the related coastal problems of pollution, forests, freshwater, capacity-building and technology transfer.

*The African Process for the Development and Protection of the Coastal and Marine Environment in Sub-Saharan Africa (the 'African Process') and the Pan African Conference on Sustainable Integrated Coastal Management (PACSICOM)*

PACSICOM and the African Process are not really inter-governmental frameworks or institutions. Instead, they are processes, the results of which are incorporated into framework plans. For example, the results of the African Process are integrated into the NEPAD Action Plan. The African Process is a Global Environment Facility (GEF) supported initiative which emerged out of priorities highlighted at two conferences held in 1998: PACSICOM in Mozambique, and the Cape Town Conference on Cooperation Development and Protection of the Coastal and Marine Environment in Sub-Saharan Africa. These events stimulated a unified political awareness amongst African governments for the need to develop an integrated approach towards sustainable development of coasts and the oceans fringing Africa.

The underlying motivation for the African Process is the recognition of the need for regional cooperation to maximize capacity in order to address the many social, economic and environmental problems that are either transboundary in nature, or common to most countries. The initiative drew scientific expertise from within individual countries and regional bodies, such as the Western Indian Ocean Marine Science Association (WIOMSA) (see section 5.5.1), so as to identify priority areas for action. This has led to the incorporation of a coastal and marine sub-component of the environment section of the NEPAD Action Plan, known as the NEPAD Coastal and Marine Secretariat (COSMAR) with its secretariat based in Nairobi, Kenya.

*African Ministerial Conference on Water (AMCOW)*

The African Ministerial Council on Water (AMCOW) was formally launched in Abuja, Nigeria on April 2002 by African Ministers responsible for water with a specific focus on water and sanitation issues. This was done in the same year as the establishment of the African Union and the launch of NEPAD. Essentially, AMCOW is a regional inter-governmental response to encourage new approaches to Africa's sustainable development challenges, and to meet the challenges posed by the Millennium Declaration and the Millennium Development Goals (MDGs).

The Mission of AMCOW is to provide political leadership, policy direction and advocacy in the provision, use and management of water resources for sustainable social and economic development and maintenance of African ecosystems, and strengthen inter-governmental cooperation to address the water and sanitation issues in Africa. Its functions include: to facilitate regional and international cooperation through the coordination of policies and actions amongst African countries regarding water resource issues; to review and mobilize additional financing

for the water sector in Africa; and to provide a mechanism for monitoring the progress of implementation of major regional and global water resources and water supply and sanitation initiatives.

AMCOW aims to develop mechanisms that will promote “best practice” for water policy reforms, integrated water resources management, food security, water supply and sanitation. It will also enhance and solidify inter-governmental and regional cooperation in the management of shared waters, including surface and groundwater. AMCOW engages in dialogue and consultations with UN agencies, regional economic groupings and with regional and global financial institutions on financing and other issues relevant to the water and sanitation sector in Africa. Issues addressed include greater participation in regional studies regarding climate change, the development of observation networks, facilitating information exchange the development of policies and strategies for addressing water issues. The AMCOW institutional set-up consists of a full Council of Ministers (the minister responsible for water from each member country), an Executive Committee supported by a Technical Advisory Committee and a President as chair. The main AMCOW Secretariat is in Abuja, Nigeria and is headed by an Interim Executive Secretary and support staff.

### **5.3.5 Inter-governmental Frameworks and Agreements**

There are a number of Africa-wide, sub-Saharan and WIO region inter-governmental arrangements, agreements and frameworks which are relevant to this TDA. Their focus is generally on shared natural resource management, more particularly around marine fisheries, marine ecosystem management and freshwater management, as outlined below.

#### *Marine fisheries management*

Marine fisheries agreements have in recent years enjoyed some prominence, in part attributable to the fishery demands imposed by the fleets from distant fishing nations of the EU and Asia, operating in the WIO. Regional structures that may have eventual management implications have been developed by a number of international institutions including the GEF (World Bank) which implements the South West Indian Ocean Fisheries Project (SWIOFP) as well as the West Indian Ocean Fisheries database (WIOFish/ [www.wiofish.org](http://www.wiofish.org)) The SADC Fisheries Protocol discussed earlier, is also a relevant agreement.

Effective management agreements are still in their infancy, although their value is increasingly recognised. The FAO administered South West Indian Ocean Fisheries Commission (SWIOFC) is one of the WIO’s Regional Fisheries Management Organisations (RFMOs) While the SWIOFC is increasingly active, it remains a voluntary and non-binding body that in time will hopefully increase its mandate and authority over fisheries management in the WIO. The second RFMO that is relevant is the Indian Ocean Tuna Commission (IOTC), based in Seychelles. While it has been operational for some years, it too operates largely on a voluntary basis, unlike its counterpart on the Atlantic (ICCAT) that more formally allocates and monitors quotas for individual countries.

There are also European Union Fisheries Partnership Agreements (FPAs) that have been developed in the context of the more general ACP-EU Economic Partnership Agreements initiative. The previous Contonou Partnership Agreement between the EU and African,



Caribbean, Pacific (ACP) States has been replaced by a comprehensive partnership agreement between the EU and ACP regional groupings, including the WIO region. There are currently 79 members of the African, Caribbean and Pacific (ACP) group of states including the WIO countries ([www.acpsec.org/en/acp\\_states.htm](http://www.acpsec.org/en/acp_states.htm)). At ACP level, there is considerable scope for improving the contribution of fisheries to poverty reduction strategies. An aspect to be noted is the central role that ACP artisanal fisheries sector activities play in food security, job creation and, increasingly, in generating foreign exchange earnings. Through FPAs, the EU has signalled a change in its approach to bilateral fisheries access agreements, particularly those signed with ACP countries, in order to contribute to responsible fishing in the mutual interest of the parties concerned. However, bilateral fisheries agreements are often still concluded in isolation and not in the context of an overall regional management approach

While the RFMOs traditionally focus on the sustainability of harvesting, increased recognition of the ecosystem approach to fisheries is evident so that RFMOs now also play a greater role in wider fishery activities including socio-economic and environmental issues, including operational impacts such as those from polluting fish processing plants and fishing port activities.

#### *Large Marine Ecosystems (LME) Programmes*

Large Marine Ecosystem programmes (LMEs) are a multinational and ecosystem-wide approach to the assessment and management of coastal and marine resources. The underlying rationale of the LMEs is that they will evolve into inter-governmental management agreements in support of Chapter 17 of Agenda 21 (UNCED 1992). More than 29 LME programmes have been implemented or concluded worldwide. LME programmes focus on ecosystems rather than national domains and are designed to improve global ocean and coastal health, reduce pollution and restore depleted biomass yields (Sherman, 2003) They are supported by the GEF and its implementing partners: UNDP, UNEP and the World Bank. Projects are based on a five-module assessment and management methodology, targeting productivity, fisheries, pollution, ecosystem health, socio-economics and governance.

An example of a successful LME programme is the Benguela Current LME (BCLME) where an ecosystem-based approach in partnership with the governments of Angola, Namibia and South Africa promotes integrated management, sustainable development and environmental protection of the south-east Atlantic region. Significantly, the BCLME has now spawned the three-nation BCLME Commission to strengthen regional cooperation and to coordinate management of shared resources in the Benguela ecosystem. Until recently, the WIO had not benefited from an LME approach, but now a similar process to the BCLME is underway here, namely the Agulhas Somali Current Large Marine Ecosystem Project (ASCLME). The ASCLME broadly includes three large ecosystems, namely the Agulhas Current the Somali Current and the Mascarene Plateau Marine Ecosystems. The study region thus extends from the Horn of Africa to Cape Agulhas, including the island states. The UNDP supported ASCLME has a strong focus on unravelling the major oceanographic driving forces that influence changes in biomass, impact on the assimilative capacity of waste and other dynamic processes. within the broader region on spatial and temporal scales (UNDP, 2006). Support from the GEF has been conditional on integrating the three projects: ASCLME, SWIOFP and WIO-LaB, so that a common Transboundary Diagnostic Analysis (TDA) and subsequent Strategic Action Plan (SAP) can be developed for the region.

### *Transmap*

The objective of this multi-institutional and European Union funded project has been to develop the scientific basis underpinning the creation of transboundary networks of marine protected areas in the East African region. As such it is directly related to the PADH chapter of this report. More particularly, the project focuses on the definition of the type, size and location of single reserves, which together, and irrespective of political borders, can maintain ecological functions, sustainable resource-uses and expected future socio-economic development. This involves the identification and indexing of data relating to the various research thrusts of the project, which are biophysical, genetic connectivity, socio-economic, governance, existing protected areas and framework, as well as geo-analytical support in the form of aerial and satellite imagery, spatial information and related matters. Transmap was implemented at the northern and southern borders of Mozambique. These two distinct ecoregions, one subtropical and one tropical, together encompass a significant proportion of the biogeographical range of the East African coastal and marine environment. Options for MPA zonation that regulate activities and resource use in these zones have been developed with the broad aim to maintain ecological functions, resource-uses and future socio-economic developments in these selected coastal areas. (<http://www.transmap.fc.ul.pt/>).

### **5.3.6 River-basin Governance frameworks**

A leading authority states that the management of international watercourses through regional cooperation provides the most comprehensive basis for environmental protection and pollution control (Birnie and Boyle, 2002). Numerous examples of Shared Water or Joint Water Commissions exist in the region. Probably the best known is the 1987 Botswana-Mozambique-Tanzania-Zambia-Zimbabwe Agreement on an Action Plan for the Environmentally Sound Management of the Common Zambezi River System (Zambezi River System Agreement) which now also includes the Democratic Republic of Congo and is administered by the Zambezi River Basin Commission (ZAMCOM). Such shared water agreements are flexible in nature but provide broadly for two categories of shared watercourse institutions:

- Shared Water Commissions that are essentially advisory bodies providing a forum for: notification, consultation and negotiation; coordinating responses to emergencies; collecting data and other environmental matters such as the setting of water quality targets and standards; and
- River Basin Authorities that can implement in that they have specific powers granted to them by parties to the shared waters agreement concerned.

Both the International Water Course Treaty and the SADC Protocol on Shared Watercourses (SADC, 2000) envisage the formation of both these kinds of arrangements. In the case of the SADC Protocol, Article 5(3) provides two relevant paragraphs:

- (a) Watercourse States undertake to establish appropriate institutions such as watercourse commissions, water authorities or boards as may be determined.
- (b) The responsibilities of such institutions shall be determined by the nature of their objectives which must be in conformity with the principles set out in (the) this Protocol.

Within the SADC region there is a rich history of international agreements dealing with freshwater management and allocation as well collaboration between associated institutions at the basin level. Some of these agreements were concluded between the then colonial powers (and are still valid), others between the countries of the region post-independence. In South Africa alone, there are at least 60 of these agreements, of a bilateral as well as a multi-lateral nature (see Ashton *et al.*, 2006). Although Malzbender and Earle (2007) identify over twenty shared water institutions in the SADC region, only two are relevant to the east coast of Africa and can be considered as falling into the category of river basin authorities referred to above. These are the Zambezi River Authority, between Zimbabwe and Zambia, established to manage and develop the shared hydro-electric infrastructure between the two states on the Zambezi River; and the Komati Basin Water Authority (KOBWA) between the Kingdom of Swaziland and the Republic of South Africa. The latter is a bi-national company formed in 1993 to manage a large dam project between these two countries under the Treaty on the Development and Utilization of the Water Resources of the Komati River Basin which is part of the wider Incomati water basin, shared by these two countries as well as Mozambique. For other examples see Table 5-9.

A general feature identified by Birnie and Boyle (2002) and Malzbender and Earle (2007) is for member countries to forego some of their sovereign rights by granting powers to a river basin authority. Such management authorities, or river basin organizations, have specific executive powers and secretariats. Apart from the Zambezi system, others are in the process of being established or converted from commissions to authorities, e.g. Limpopo Basin Commission with member Botswana, Mozambique, South Africa and Zimbabwe. In addition, these arrangements are now beginning to be dove-tailed with the environmental requirements of the SADC Protocol as exemplified by the Incomaputo-Agreement (described in more detail below).

- Table 5-9 Bilateral and multi-lateral water agreements

<b>Participating countries</b>	<b>Nature of Cooperation</b>	<b>Objectives</b>
Mozambique, South Africa, Swaziland	Joint Incomati Basin water resources management	Provide valuable information necessary for producing a basin plan.
Mozambique, South Africa, Swaziland	Pongola and Maputo rivers development and planning	Study present conditions and future plans for the two rivers to ensure proper water flow quantities and water quality.
Mozambique, Zimbabwe	Joint water commission for the Save, Buzi and Pungwe rivers	Produce basin management plans to assess sustainability of water transfers for the Pungwe and Save rivers, including EIAs.
Zambia, Zimbabwe	Management of Kariba Dam and related infrastructure through the Zambezi River Authority	Operate, monitor and maintain the Kariba Dam, investigate new dam projects, collect and process hydrological and environmental data, liaise with utilities of the water plus various administrative functions.

Despite these positive initiatives, the region is still faced with a number of problems in collective water basin management, including lack of sufficient capacity to address transboundary issues, poor coordination among different initiatives, overlapping responsibilities, weak promotion of sectoral approaches to include coastal and marine environment issues, and lack of sustained political and financial commitment to the protection of the coastal and marine environment, partly as a result of lack of awareness. Three of the four continental WIO states (Mozambique, South Africa and Tanzania) are SADC Member States and bound by the SADC Protocol (see section 5.3.3). In addition, most other SADC Member States that contribute run-off to rivers terminating in the WIO are also bound by the SADC Protocol (see Table 5-10).

At the regional scale, the SADC Protocol, complemented at policy level by the SADC Regional Water Policy and SADC Regional Water Strategy, establishes the institutional set-up for the management of shared watercourses, consisting of the SADC Water Sector Organs and Shared Watercourse Institutions (SWCIs) (see-SADC Shared Water Courses Protocol Article 5).

With respect to the International Watercourses Convention and the SADC Protocol referred to in section 5.3.3, the nature and scope of the obligation to protect the “aquatic environment”, enshrined in Article 4(2)(d) are not well defined. By contrast, the respective provision of the UN Convention, Article 23, obliges states to take all necessary measures to protect and preserve the “marine environment,” including estuaries. The relevant SADC Protocol, being otherwise identical with the UN Convention, uses the term “aquatic environment” instead of “marine environment”. While there is no universally accepted definition for aquatic ecosystems, these are considered to include riverine systems, estuarine systems, coastal marine systems, wetland systems, floodplains, lakes and groundwater systems (Masundire and Mackay, 2002). Following this definition the SADC Protocol obligation would extend only to coastal marine systems but not include impacts that occur in the open sea, i.e. beyond coastal areas, as discussed by Malzbender and Earle (2007).

The difference between the two provisions might in practice be less significant since many impacts that affect the marine environment in the open sea would also affect the estuary and coastal areas, in which case the protection obligation applies in any case. Where this does not happen, the protection obligations set forth in the SADC Protocol is arguably less rigorous, with potential implications for marine water quality in the WIO region.

- Table 5-10 Overview of applicable laws in the WIO countries and SADC states contributing to rivers terminating in the WIO region.

Country	WIO state without shared rivers	WIO state with shared rivers	Non-WIO state contributing to shared rivers terminating into the WIO	SADC Member state	Country bound by SADC Protocol on Shared Watercourses	National Water Legislation
Angola			X	X	X	Water Law (2006)
Botswana			X	X	X	Water Act (34 of 1968)

<b>Comoros</b>	<b>X</b>					
<b>Kenya</b>		<b>X</b>				Water Act (No. 8 of 2002)
<b>Madagascar</b>	<b>X</b>			<b>X</b>	(ratification pending)	Water Law (No 98-029 of 1999)
<b>Malawi</b>			<b>X</b>	<b>X</b>	<b>X</b>	Water Resources Act 1969
<b>Mauritius</b>	<b>X</b>			<b>X</b>	<b>X</b>	
<b>Mozambique</b>		<b>X</b>		<b>X</b>	<b>X</b>	Water Law (Law 16/91, of 1991)
<b>Namibia</b>			<b>X</b>	<b>X</b>	<b>X</b>	Water Act No 54 of 1956; Water Resources Management Act (24 of 2004) pending commencement
<b>Seychelles</b>	<b>X</b>					Water Resources Management Act (No. 99/2005)
<b>South Africa</b>		<b>X</b>		<b>X</b>	<b>X</b>	National Water Act 36 of 1998
<b>Swaziland</b>			<b>X</b>	<b>X</b>	<b>X</b>	Water Act (No 7 of 2003)
<b>Tanzania</b>		<b>X</b>		<b>X</b>	<b>X</b>	Water Utilisation (Control and Regulation ) Act (42 of 1974)
<b>Zambia</b>			<b>X</b>	<b>X</b>	<b>X</b>	Water Act 1948
<b>Zimbabwe</b>			<b>X</b>	<b>X</b>	(signatory state but ratification pending)	Zimbabwe Water Act (31 of 1998)

As a framework agreement, the SADC Protocol does not contain basin-specific rules; rather it provides that watercourse states may enter into watercourse specific agreements that apply the provisions of the Protocol to that watercourse or part thereof (see Article 6(3)). In line with this article of the SADC Protocol, the Incomaputo-Agreement<sup>10</sup> is one of the first comprehensive basin-wide agreements that has been drafted for the WIO Region?). Although other basins in the regions still lack such governance, it can be expected that in the long-run similar agreements will be drafted, thereby harmonising the management of shared watercourses within the framework set by the SADC Protocol (as explained by Malzbender and Earle, 2007). The SADC Protocol is also notable in that it preserves the validity of existing agreements that member states have entered into prior to the entry into force of the SADC Protocol.

### *Institutional framework*

<sup>10</sup> Tripartite Interim Agreement between the Republic of Mozambique and the Republic of South Africa and The Kingdom of Swaziland for Co-operation on the Protection and Sustainable Utilisation of the Water Resources of the Incomati and Maputo Watercourses.

In practice, the institutions operating within SADC are currently mandated primarily with monitoring functions concerning the application of the SADC Protocol, as well as with facilitating the harmonisation of water laws and policies between SADC member states. These water management institutions are not mandated with the implementation and enforcement of basin-wide agreements. Instead, where such activities are undertaken, they are done by Shared Watercourse Institutions (SWCIs) as well as relevant domestic institutions in each country. Through the above-mentioned basin-specific agreements, a range of organisations have been formed to advise basin states on river management issues (such as basin commissions), cooperate over technical aspects (technical committees) and implement projects (development authorities) (Malzbender and Earle, 2007). An overview of the various organisations in the SADC is provided in Table 5-11.

The SADC Protocol is non-prescriptive on the types of shared water course institutions (or SWCIs) which may be formed, leaving their scope of powers and mandate to member states to determine with their own mechanisms considered most appropriate to their situations. For WIO rivers, only four organizations: Tana and Athi Rivers Development Authority (TARDA), Pangani Basin Water Office (PBWO), Zambezi River Authority (ZRA) and Komati Basin Water Authority (KOBWA) have an executive mandate (see Table 5-11), meaning that they have the authority to develop, implement and maintain joint projects and to make management decisions about those projects. They are formed to specifically address a joint project, such as dam construction or operation, hydropower generation or irrigation. They do not engage in inter-state negotiations or policy formation – only operating within their clearly defined mandate as agreed by the states concerned (Malzbender and Earle, 2007).

The two transboundary river basin organizations (RBOs) with an executive mandate are the Zambezi River Authority, formed between Zambia and Zimbabwe to manage and further develop the shared hydro-electric infrastructure on the Zambezi River, and the Komati Basin Water Authority, formed between South Africa and Swaziland to implement Phase 1 of the Komati River Basin Development Project. These two organisations cover transboundary rivers yet do not include all the basin states,. Nevertheless, these SWCIs are important as they represent a tangible example of cooperation between states, developing and managing water-related infrastructure in an effort to promote the socio-economic development which the region requires (as explained by Malzbender and Earle, 2007).

• Table 5-11 River basin organisations (RBOs) in the WIO region (note: no such organisations exist in Madagascar).

Basins	States	RBO'S with executive authority	Commissions with basin-wide mandate	Technical committees
<b>Tana</b>	Kenya	Tana and Athi Rivers Development Authority (TARDA)		
<b>Athi-Sabaki</b>	Kenya	TARDA		
<b>Pangani</b>	Kenya Tanzania	Pangani Basin Water Office (PBWO)		
<b>Rufiji</b>	Tanzania	Rufiji Basin Development Authority; Rufiji Basin Development Office		

Basins	States	RBO'S with executive authority	Commissions with basin-wide mandate	Technical committees
<b>Rovuma</b>	Mozambique Tanzania		Rovuma Joint Comm. (being formed)	
<b>Zambezi</b>	Angola Botswana Malawi Mozambique Namibia Tanzania Zimbabwe Zambia	Zambezi River Authority (ZRA)	Zambezi River Basin Commission (ZAMCOM) (pending ratification)	Joint Permanent Committee
<b>Pungue</b>	Mozambique Zimbabwe		Pungwe River Basin Commission	
<b>Limpopo</b>	Botswana Mozambique South Africa Zimbabwe		Limpopo River Commission	
<b>Incomati</b>	Mozambique South Africa Swaziland	Komati Basin Water Authority (KOBWA)		Tripartite Technical Committee
<b>Maputo</b>	Mozambique South Africa Swaziland			Tripartite Technical Committee

In addition to SWCIs with an executive mandate, several basin-wide commissions have also been formed between states, operating as advisory bodies to their national states – thus not limiting their sovereignty (Malzbender and Earle, 2007). These commissions mostly work through subcommittee systems in which the members are technical experts or advisors nominated by each delegation. It is at this level that studies are carried out to provide the information to enable the committees to reach consensus around river and water management issues. Several of these commissions have now formed secretariats to assist them in conducting their duties (Malzbender and Earle, 2007).

Various other bilateral, or non-basin-wide, technical committees and commissions exist in the region. These will most likely continue to be the mechanisms for the implementation of joint projects, although some of them are increasingly coming under the remit of basin-wide commissions.

## **Governance of ABNJ in the WIO**

### ***Seabed Exploration and Exploitation***

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. A number of Western Indian Ocean States are broad margin states and have made applications to the Continental Shelf Commission (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. The Claim submitted jointly by Seychelles and Mauritius has already been considered by the Commission.

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. 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.

### ***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).

Under the 1974/78 MARPOL Convention regulating the carriage of a range of hazardous and polluting materials, the parties can agree to the designation of Special Areas – even in ABNJ areas – where high requirements 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 ports [*insert section on Indian Ocean Special Areas*]

### ***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 roughy on seamounts. This has just entered into force.

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).



With the entry into force of the SIOF Agreement, that will be the international body with responsibility for developing regional provisions relating to the protection of vulnerable marine ecosystems in the Indian Ocean area, under the FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas designed to assist States and regional fisheries management organizations and arrangements in sustainably managing deep-sea fisheries. These guidelines were adopted in August 2008 (FAO 2009).

The development and approval by the CBD COP10 of criteria for the description of “Ecologically and Biologically Significant Areas” (EBSAs)<sup>11</sup> provides a major incentive for the protection of such areas once they have been described and a series of international workshops have been convened by the CBD Secretariat to identify marine areas – including high seas areas which can be described as EBSAs. The CBD Scientific Workshop to describe EBSAs in the Western Indian Ocean was held in Seychelles in 2012.

## **5.5 The role of civil society**

The role and influence of Civil Society Organisations (CSOs) in environmental governance generally, and the coastal and marine environment in particular, whether at international, regional or local levels, has been steadily growing over the years. Today CSOs are important stakeholders and partners in the efforts to protect the environment of the WIO region. Nevertheless, there are also weaknesses and limitations and constraints, as well as opportunities for further engagement. The general roles of CSOs working on the coastal and marine environment in the WIO Region include the following:

- *Advocacy*: Advocacy and campaigns for the improvement of the coastal and marine environment, including the reduction, mitigation, or elimination of adverse impacts from land-based marine activities, especially at the grassroots and community levels. This includes the establishment of formal and informal networks and collaborative arrangements.
- *Education, Training and Capacity Programmes*: The development of enhanced capacity and impact through education, training and research programmes is a key feature of the roles of CSOs in the region. This includes the empowerment of communities and individuals to participate better in the governance of coastal and marine resources.
- *Research and Information*: CSOs also have a role in research and information gathering relevant to land-based marine activities in the region. Some of the organizations specialise in process aspects, others in specific resources.
- *Alternative Voice of Government*: In their areas of mandate, CSOs in the region play the role of alternative voices, which keeps government and public institutions in check and more accountable to the public. In this role, CSOs assist governments in the provision of basic goods and services, especially for poorer communities.

Some of the strengths of the CSOs as facilitators of governance include the following:

- *International Financial Support*: These are considered to be viable alternative vehicles to government as agents of development and environmental conservation, being at times

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<sup>11</sup> For CBD COP 10 Decision see <https://www.cbd.int/cop10/doc/> (accessed 21 February 2011).

more flexible, more efficient and generally subjected to tighter fiscal controls. Because of these features, CSOs are often recipients of financial support from international development partners (see further discussion in section 5.6). Such support is usually directed towards funding the human and institutional capacity development of the CSOs. Owing to this support, more CSOs have either emerged or become strengthened and attracted some of the best intellectuals and scientists in the region.

- **Technical Capacity:** Many of the CSOs in the region are run by highly trained and skilled intellectuals, scientists and managers. Because they are generally project or activity-based, there is usually a concentration of specific skills and competencies. This is the case with regard to those which deal with coastal and marine environment of the WIO region, including those involved in land-based activity issues.
- **Operational Flexibility:** Compared to government institutions or public authorities, CSOs are generally more flexible operationally. Their financial and administrative operations, including decision making, is more flexible than the more rigid structures of government.
- **Participatory and Advocatory:** CSOs are generally strong on participatory and advocacy mechanisms, especially at the grassroots and community levels.
- **Legitimacy:** CSOs generally own the initiative and it is not imposed on them.

However, despite these well-recognised strengths, there are also areas of weaknesses and limitations to the involvement of CSOs in governance of WIO marine and coastal resources, including aspects of land-based marine pollution. These include:

- **Poor Governance:** Many CSOs, especially the smaller national ones, lack accountability and proper governance structures, thus making it difficult to hold them responsible where they fail to deliver on stated environmental goods and services.
- **Weak Capacities:** Many of the national CSOs lack financial and technical capacities to contribute effectively to management of impacts from land-based activities. They are often small or medium sized organisations whose impact is barely discernible.
- **Lack of Coordinated Structure and Approach:** In most of the countries, there appears to be an absence of a specific coordination structure and approach to the work and intervention of the CSOs working on land-based issues. This leads to duplication, rivalries, competition for projects or exposure and consequently ineffective interventions. This applies even to the work of larger, international or regional CSOs. However, in some countries a modicum of coordination structure between NGOs does exist. For example, the Kenya Marine Forum (KMF) is active in that country, while in Comoros there is the Association de Institutes pour Developement et l'Environnement (AIDE). Unfortunately, however, where they exist they are invariably weak. As regards international NGOs, the WIO-C (dealt with below) is expected particularly to play a key coordinating role.
- **Restricted or Limited Mandates:** Unlike government and public institutions generally, CSOs have restricted mandates, usually defined by their own constitutive instruments, their owners, trustees or management, and the laws or framework under which they are registered or operate. Thus they deal with specific issues or aspects of problems, often as

a funded activity or project. This leads to lack of institutional memory and limited impact. Some larger, international CSOs also develop programmes primarily to sustain their economic viability, high expenses, management fees and individual salaries.

### **International and regional Non Government Organisations**

Various international and regional, as well as national non-governmental (civil) society organizations, have been active in the WIO region over time, with emphasis on various aspects of the marine and coastal environment and resources as outlined below. Many international (NGOs) have regional and/or national presence. For convenience, international and regional NGOs are described in the remainder of this section while national NGOs are the focus of section 5.5.2. .

#### *The World Conservation Union (IUCN)*

The IUCN was established in 1948 and brings together 83 States, 110 government agencies, over 800 non-governmental organizations (NGOs), and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership ([www.iucn.org](http://www.iucn.org)). Its 1,100 staff are located in 40 countries, creating the world's most important and largest multicultural, multilingual conservation network. Its mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. Its headquarters and secretariat is in Switzerland. While IUCN's undisputed strength lies in the scientific basis of its activities, it also has an Environmental Law Centre based in Germany.

The IUCN has played an important role in developing treaties to protect wildlife, and for the conservation of natural resources. It has also undertaken numerous studies and produced many publications. These include the 1992 Convention on Biodiversity, the World Conservation Strategy which was first published in 1980, and an on-going series of Red Data Books listing endangered species of plants and animals.

The IUCN's work schedule consists of four-year Global Programmes. The priority of recent programmes has seen recognition of the many ways in which human lives and livelihoods, especially of the poor, depend on the sustainable management of natural resources. The Union promotes ecosystem management as a tool to conserve biodiversity and build sustainable livelihoods. Consequently, it is actively engaged in managing and restoring ecosystems and improving people's lives, economies and societies, including land-based issues of concern.

The IUCN East African Regional Office (EARO) was established in 1985, becoming IUCN's first regional office worldwide. Through its ability to galvanise funds from international donors, and to coordinate and manage implementation of programmes and activities, usually through sub-contracting consultants, the EARO has contributed to several important interventions in the WIO region. These included advocacy for rare, threatened and endangered species and habitats, as well as education and awareness programmes. Examples are numerous and include the facilitation of the Tanga Coastal Zone Conservation and Development Programme in Tanzania; the Eastern Africa Marine and Coastal Ecosystems Programme; its partnership with other organizations to implement the Jakarta Mandate for the implementation of the 1992 Biodiversity Convention; its support of the Kisite Marine Park in Kenya; its assessment of Somali biodiversity including coastal and marine development, and its support Tanzania's newly established Mnazi Bay-Ruvuma Estuary Marine Park and Moheli Marine Park in the Comoros. In addition, the organization has been assisting the region in the development of marine

protected areas (MPAs), and particularly with the production of a 'Toolkit' to help MPA managers find the resource information they need; as well as also working in collaboration with the IUCN World Commission on Protected Areas to introduce the concept of 'assessment of management effectiveness'. All these initiatives have a direct bearing on land-based marine pollution.

Elsewhere, the IUCN supports projects on Kenya's coast such as the Diani Project which demonstrates how marine/coastal conflicts may be reduced. Also, special attention is given to biodiversity conservation in Small Island Developing States (SIDS), such as the Seychelles, where IUCN has been managing a fund established to support a series of practical biodiversity conservation projects. In the Comoros, IUCN assists with the implementation of a GEF funded biodiversity conservation project. IUCN-EARO provides support for the implementation of the Nairobi Convention through assistance to countries on national marine and coastal projects and through its regional work, funded by NORAD, WWF, UNEP/ICRAN and the Coastal Zone Management Centre of the Netherlands.

#### *Western Indian Ocean Marine Science Association (WIOMSA)*

WIOMSA is a non-governmental and non-profit regional organization for promoting the educational, scientific and technological development of all aspects of marine sciences throughout the WIO region. It promotes the educational, scientific and technological development of all aspects of marine sciences in the region with a view to sustaining the use and conservation of its marine resources ([www.wiomsa.org](http://www.wiomsa.org)). The association gathers and disseminates marine science information, coordinates meetings to foster marine science development and information exchange, and enhances communication among the marine scientists and other professionals involved in the advancement of marine science research and development in the WIO region. Among the flagship programmes of WIOMSA are the Marine Science for Management Fund (MASMA); regular marine scientific symposia and joint efforts and initiatives (with other partners) in support of the Jakarta Mandate for implementation of the 1992 Biodiversity Convention.

#### *World Wide Fund for Nature (WWF)*

WWF was established in 1961 and operates in more than 100 countries. Its stated mission statement is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity; ensuring that the use of renewable natural resources is sustainable; and promoting the reduction of pollution and wasteful consumption. WWF has secured funds for and is currently implementing around 2,000 conservation projects, employing almost 4,000 people worldwide. Apart from several other interventions both in the terrestrial and aquatic environment and natural resource base, the WWF has a global marine and coastal component with several initiatives. These include a dedicated marine programme, MPAs, sustainable fishing, sustainable resource use and climate change interventions ([www.panda.org](http://www.panda.org)).

WWF has been involved in active conservation work in eastern Africa since 1962, beginning with the purchase of land in Nakuru (Kenya) to allow for the establishment of an enlarged park to help support the conservation of the flamingos of Lake Nakuru. The WWF Eastern Africa Regional Programme Office (WWF-EARPO) was established in Nairobi in 1986 within the

WWF Africa and Madagascar Programme (WWF-AMP). WWF-EARPO acts as the principal focus within the eastern Africa region by providing project support and evaluation at the local and regional level. In the marine and coastal environment, the main interventions have included the WWF's East African Marine Ecoregion (EAME) project. Based in Tanzania this programme has developed a basic ecosystem template for sensitive areas along the East African coast, worthy of protection. Other specific interventions include coastal forests in Kenya and Tanzania, threatened marine turtles and climate change. It is expected that an East African Coastal Forest Programme is to be established to develop a more cohesive and region-wide mandate over coastal forests. The WWF works in close partnership with the Nairobi Convention and other stakeholders to promote the marine and coastal environment of the WIO region.

*Consortium for Conservation of Coastal and Marine Ecosystems in Western Indian Ocean, (WIO-C)*

A particularly relevant development, given the clear need to coordinate matters to do with land-based marine pollution in the WIO region, has been the relatively recent launch of the Consortium for Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean, (WIO-C) at UNEP in Nairobi, in September 2006. Over the years, the governments of the WIO have voiced concern over the continued degradation of the marine and coastal environment as a result of which several regional organizations have developed strong coastal and marine conservation programmes. These programmes include the EAME (see above), plus related projects implemented by CORDIO, WIOMSA, WCS, UNEP and United Nations Educational, Scientific and Cultural Organization (UNESCO). Due to the multiplicity of projects and programmes, a number of key stakeholders came together to discuss and agree on how their initiatives could be more effective in influencing decision-making and changing the face of natural resource management in the WIO region. WIO-C was formed to rationalize these contributions and particularly to develop synergistic partnerships that will advance the interests of marine research, conservation and management in the region.

The nine founding members: IUCN, WWF, WIOMSA, CORDIO, WCS, UNEP-Nairobi Convention, Indian Ocean Commission (IOC), New Partnerships for African Development (NEPAD), and Inter-Governmental Oceanographic Commission (IOC-UNESCO), are committed to anchor the Consortium in the Nairobi Convention. The Consortium is expected to provide a credible network of organizations, which will be able to provide decision support, share information and management experiences, mobilize resources and develop collaborative programmes. These activities will particularly relate to regional and transboundary issues. While the nine-member leadership group will steer the Consortium, the day-to-day secretariat functions are to be a revolving responsibility – initially undertaken by the WWF-EAME office in Dar es Salaam, Tanzania. A formal launch took place during the COP 5 meeting for the Nairobi Convention in November 2007. Other international and regional NGOs active in the WIO region include Conservation International (CI); Eastern African Wildlife Society (EAWS), the Oceanographic Research Institute (ORI) and World Conservation Society (WCS).

### **5.5.2 National civil society organisations**

Besides the national branches of international or regional organizations described above, other homegrown NGOs, particularly at the community level, are also active. Many examples exist, such as ANAII (Associação dos Naturais e Amigos da Ilha da Inhaca) in Mozambique, KESCOM (Kenya Sea Turtle Conservation Committee), OTP (Ocean Training and Promotion)

in Somalia and CoastWatch in South Africa. In reality, this category of LBSA stakeholders is important and indispensable in the governance of the coastal and marine environment. In their respective areas of mandate, they perform critical functions related to education and awareness, advocacy, research and information, and they also act as alternative voice to government.

## **6 Financial mechanisms**

### **5.6.1 International and regional context**

Financial mechanisms encompass not only the availability of finance but also include financial instruments such as incentive schemes and commercial arrangements such as partnerships, all of which together contribute to providing a secure financial basis to facilitate optimum environmental management in the marine and coastal sector. The topic traverses international, regional and national considerations partly because international stakeholders play an active role in national coastal sectors. These range from resource extraction, recreation and tourism development, to trade, transport, and communication. In this regard, the prevention of deterioration of the quality of environmental and natural resources such as fisheries, and the maintenance of recreational amenities, coastal infrastructure such as ports and harbours are ultimately all in the interest of both the international and regional community.

In general, the demand for environmental financing arises as a result of political commitment to the environment through budget transfers, users' willingness to pay for services and the use of environmental resources. The polluter's willingness, enforced or otherwise, to clean up and prevent environmental degradation may also contribute. National aspects such as coastal policies, institutions and legislative processes, dealt with in the next section, should therefore facilitate and promote international and regional funding and investments to combat land-based sources of marine pollution (UNEP, 2006). Accordingly, a fundamental cross-cutting issue is the availability of financial resources in the WIO region. This is critically important for the success of land-based activity interventions for all the problem areas outlined in Chapter 4. It is suggested that the scarcity of financial resources, linked to weak institutional capacity and the governance issue described above, remain the main limiting factors against optimal land-based activity interventions. Such interventions include planning, the setting of standards and designs, evaluation and implementation of concrete actions.

In the context of Large Marine Ecosystems (LMEs), Olsen *et al.* (2006) point out that 'there are literally hundreds of mechanisms for sustainable financing of LME programs'. Nevertheless, these authors identify four basic methods of financing government programmes whatever area they might target, namely: (i) taxes, (ii) user charges, (iii) borrowing (bonds and loans) and (iv) grants. The use of general tax revenues is not preferred in the current context, as firstly, use of such taxes competes with other public funding priorities such as health care, education, infrastructure and defence, and secondly, there is no direct relationship between the amount of taxes paid by individual taxpayers and the amount of goods and services they have used or benefits received. The tendency in the context of financing marine and coastal related projects accordingly is to move away from broad-based taxation to the second category referred to above,

namely user charges (also known as fees or selective taxes paid for ecosystem services). This form of revenue-raising balances what individuals pay with the benefits they receive.

Olsen *et al.* (2006) describe user charges as the fees that individuals pay to their government based on the benefits received or the amounts used of the goods or services provided by their government, and distinguish four types of user charges:

- a) User fees. These include royalties on the use of natural resources (e.g. a tax on fish landings), bridge and highway tolls, lease and rental payments, and charges for recurring sales of resources (e.g. water). For example, in the new South African ICZM Bill, the minister is authorised to implement: “fees, costs and rents for the use of coastal public property” ([www.deat.gov.za](http://www.deat.gov.za))
- b) Regulatory Fees. These include charges for inspecting and testing services, permit and license fees associated with regulatory programs, payment for providing electricity, water, and waste water treatment services, solid waste disposal, construction of environmental facilities, permit services, etc.
- c) Beneficiary based taxes (or ear-marked taxes). These are correlated with but not tied to, the use of a government-provided goods or services. For example, a government tax or levy on fuel may be dedicated to financing highway construction. Notice that in some countries great sums of money are generated by tax on fuel as road tax, even if the fuel is used to power boats at sea<sup>12</sup>.
- d) Liability-based taxes. These are charges for purpose of abating hazards, and fall into the legal category of the ‘polluter pays’ principle. The best known example of this is the international law scheme built around liability for oil spills and pollution.

As regards grants, the fourth category mentioned above, an important financing mechanism for environmental protection generally in the WIO region, is derived from domestic or international development partners such as the GEF and donors. These are amenable to contribute funding in the form of grants, loans, or other forms of financing without cost (UNEP, 2006). For lower income countries, donors tend to be the main source of environmental financing together with International Financial Institutions (IFIs). Bilateral and multilateral funding has been applied in the WIO region to assist countries in the formulation and implementation of ICZM/ICARM policies, resource management, capacity building, sectoral and regional programmes, and projects and research. Some of the external funding is channelled through regional organizations such as the Indian Ocean Commission (IOC), the UNEP/Nairobi Convention Secretariat (and related Nairobi Convention Regional Coordination Unit (RCU) in Seychelles), the WIOMSA and the now defunct Secretariat for Eastern African Coastal Area Management (SEACAM). Major external funding for activities, including international waters, has come from the Swedish International Development Agency/Department for Research Cooperation (Sida/SAREC); European Union (EU); World Bank (WB); Norwegian Development Agency (NORAD); Ireland Aid; the governments of the Netherlands, Finland and Denmark, the United States Agency for International Development (USAID); and the Global Environmental Facility (GEF) (SEACAM, 2001). The links with these to national institutions are elaborated further in section 5.6.2 below

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<sup>12</sup> The Magnusson Act in the US channels this finance to marine conservation.



NGOs, through their international donors, also contribute finance to implement projects, which largely by-pass the formal hurdles of national governments. For example, established international NGOs such as the WWF and IUCN, create a measure of sustainability and stability for interventions addressing land-based sources and related environmental issues. It would be worthwhile for the countries of the region to facilitate, promote and enhance the participation of such NGOs in order to ensure long term financial sustainability of land-based activity interventions. From a WIO perspective, the first priority is to secure and maintain a long-term sustainable financing mechanism to support the Nairobi Convention secretariat and its programme of work related to land-based activities. As important is the need to strengthen in-country capacity to address land-based activities which a regional institution is ideally placed to facilitate.

### **5.6.2 National context**

The financing of activities related to land-based pollution and coastal disturbance issues is closely linked to the funding of integrated national coastal management policies and initiatives. National needs typically include funding for the development of infrastructure such as water and sewerage services, and/or appropriate alternative technologies, access roads, markets, fish landing sites, capacity building and human resource development. Related areas include financial resources and mechanisms for implementing the National Programmes of Action (NPAs), and the Strategic Action Programme (SAP) - expected to follow upon completion of this TDA. In practice, limited availability of long-term financing is one of the main obstacles to increasing environmental protection generally and reducing pollution from land-based sources in particular. This arises due to a variety of reasons including low public sector allocations, limited participation by private sector and users of environmental services and lack of awareness of the services and their value provided by ecosystems.

Conventional sources of funding at national level include government allocations, through direct budgetary allocations, or through market-based instruments such as taxes, rebates and the polluter-pays principle. Also important are donor funding and private sector financing, support for civil society, as well as interventions and contributions from external development partners amongst others.

Government allocations have traditionally been, and remain, the main source of finance for environmental protection generally and coastal and marine issues in particular, including land-based activity interventions. For example, the government of South Africa, having received substantial British government support in 1999/2000 for their national environmental programme, directed most of the funds to coastal management for environmental action (SEACAM, 2001). However, government allocations to the coast are relatively more evident in the island states where there is a comparatively higher dependence upon coastal resources than compared to the Africa mainland states. The identification of domestic sources of funding (bonds, soft loans, taxes, etc.) remains a key to securing long-term support. For example, grants from the British Department for International Development (DfID) can assist in building a sustainable funding strategy but the core must be found within domestic resources.

Apart from government allocation, a further important source of domestic resources for land-based activity intervention is the private sector and civil society. As a category their contribution



is smaller than public sector allocations and even perhaps external resources. Civil society groups do, however, play a small but increasingly important financing role, especially in working directly with local communities in awareness raising and empowerment programmes, financed mainly from external sources. However, the private sector is being increasingly involved in various development activities in the WIO region especially in Mauritius, Reunion, and Seychelles (SEACAM, 2001). In Mauritius, for example, an environment fund was established through which private sector invests in tourism and coastal zone planning projects. In the Seychelles, the Environment Trust Fund attracts about USD 100,000 per annum from the private sector. Nevertheless, voluntary contributions from the private sector remain isolated situations, mainly because investments for pollution abatement, such as waste water treatment, are costly (SEACAM, 2001). The main expenditure related to interventions on abating negative environmental impacts are usually in infrastructure, which have historically mainly been public sector funded.

Apart from conventional financing mechanisms, innovative arrangements such as public-private partnerships (PPPs) and decentralization may present appropriate financing options for coastal area management (UNEP, 2006). By having the private sector invest in, and operate facilities for, public services such as water supply and sewage services, the public utility may benefit from lower costs as a result of the more efficient management practices that are characteristic of the private sector. The PPP mechanism is being used in different places around the world with mixed outcomes (UNEP, 2006). Apart from PPP, pure self interest of the private sector, which is seen to have an interest in maintaining environmental quality in the coastal zone, can be a powerful motivating factor in providing financial means for maintaining a healthy coastal environment. Thus, for example, on the Kenyan coast, a group of hotels has formed a syndicate to manage sewerage outflows from their respective resorts to maintain the environmental integrity and water quality of the coastal area to ensure the sustainability of the tourist sector. Government-led incentive-based approaches can also be invoked to promote environmental quality of coastal areas. A vivid example of this is the 'Blue Flag' Programme which has been invoked in South Africa over the last decade, following the example of the EU. Twenty one beaches in South Africa have since been designated as such, meaning that they guarantee a certain marine waters quality, provide minimum human health and safety standards, and provide environmental information and management. However, the challenge is not only to initiate such projects but also to ensure their sustainability. Not all Blue Flag beaches have retained their status, largely through failed sewage treatment systems and apathy at government level.

Donor funding, addressed briefly in section 5.6.1, is attractive as supplementary to local resources, mindful of its limitations. These include lack of sustainability, as they are usually intended for specific activities or sectors and are time-bound. Consequently they are often short-term with little chance of durable impact on target groups (SEACAM, 2001; UNEP, 2006). This often obliges the recipient country to tailor or modify its funding request and proposal to meet donor criteria which may be discordant with the priorities in the recipient countries. It has been pointed out that it is of vital importance for donors to focus on projects which are initiated and designed by recipient countries, according to their priorities (SEACAM, 2001). Moreover, there is also the risk of donor dependence, especially where governments fail to take a firm position on national policies, priorities and practices. Apart from this, where external donors are not properly

coordinated, this may lead to strategic confusion, financial wastage and ultimately an unsustainable result (SEACAM, 2001). Further disadvantages of donor funding include the lengthy process for obtaining grants, especially from multilateral organizations; significant lags between commitments and disbursements and the possibility of undermining local efforts at self-sufficiency and reduction in the potential for leveraging user-financing (UNEP, 2006). In recent year, donor ‘fatigue’ has been noted, reflected in diminishing inflows. It also remains doubtful whether donor support has in any event adequately addressed national and regional priorities of coastal and marine issues.

In conclusion, the urgent priority for the future remains the rather elusive sustainable financing mechanism for integrated coastal area management. It is essential for long-term action programmes to have financial plans based on realistic expectations of grant transfers or external resources as well as long-term sustainable domestic resources (UNEP, 2006). With respect to the latter, it is proposed that carefully negotiated public-private partnerships may provide the basis for needed sustainable investments in services such as sewage and solid waste disposal and other sources of land-based pollution and degradation in the WIO region (SEACAM, 2001). A much needed strategy to break this cycle of dependence lies in strengthening institutional capacities for planning and budgeting, including mainstreaming environmental finance into national budgets.

Moreover, it is feasible to use existing or new legal and institutional instruments, such as environmental taxes and environmental penalties, to improve the effectiveness of interventions. Environmental taxes, which may include penalties for environmental crimes, levies on production processes considered to be environmentally un-friendly, environmental licenses and/or permits or fees, or similar, are possible lines of revenue on the domestic front which could augment formal budgetary allocations in the countries. In South Africa, Part 4 of the new ICZM Act states that no person may claim an exclusive right to use or exploit any specific coastal resource in any part of, or that is derived from, coastal public property unless authorised to do so. This authorization includes leasing such rights for a period of up to 20 years, for which a rent has to be paid. Similarly other use of the coast can generate revenue in terms of the Act, including permits to discharge waste under specified conditions. These, and other systems generating revenue for ICZM.

## **7 Education and public awareness**

Education and public awareness programmes sensitize and empower the people, particularly coastal communities, concerning issues of sustainable management of the coastal and marine environment and for more effective interventions against LBSA. But education and public awareness programmes should target entire national populations and should not be limited to coastal communities and public officials and others directly involved in coastal zone governance. This is because LBSA issues are intimately connected with upstream activities and communities from a wider geographic zone. Through such programmes, national and local authorities can more easily initiate interventions addressing LBSA, including more effective management and regulatory measures. Education and public awareness also enlightens the public about development opportunities in the coastal zone as well as sensitive ecosystems. Lack of education and awareness, on the other hand, leads to ignorance, poor public participation and consequently increased pollution and degradation of the coastal and marine environment. Ultimately, successful co-management and devolution of authority to local levels is dependent on an informed society.

### *Education initiatives*

A variety of public awareness, educational and training programmes has been implemented in the WIO region countries in recent years but largely in an *ad hoc* and un-coordinated manner. They have been disseminated mainly through the public media, workshops, conferences and specific public events, and they have had the effect of increasing awareness generally and particularly of ICZM issues (SEACAM, 2001; Uku and Francis, 2007).

More recently, a WIO LaB-supported “Educational Needs Assessment” for the WIO region (Uku and Francis, 2007) produced interesting results concerning education and awareness programmes relevant to LBSA. The findings of the educational survey indicated that educational programmes in most countries cover only limited aspects of marine and coastal environmental management. However, some countries in the WIO region have in place more advanced education programmes in this regard, which may prove to be useful in sharing of experiences between countries. From this survey, countries with advanced and coordinated educational and outreach programmes included Seychelles and South Africa.

These initiatives have largely been within the framework of more general ICZM pilot projects launched in the countries in recent years which have included public awareness and educational programmes such as for example in Kenya, Mauritius, Seychelles, Tanzania, and South Africa, among others. Television, radio programmes, posters and bill-boards, and the Internet, have all contributed to the raising of awareness and disseminating educational material, in spite of limited access especially to TV and the Internet across the region. Best practices from Mauritius and Seychelles include specific environmental media and education units which ensure the development and implementation of specific media and awareness programmes throughout the year. In Mauritius, the Information, Education and Research Division of the Ministry of Environment is fully involved in such activities (SEACAM, 2001). The challenge is to replicate such programmes in the other countries of the WIO region, and also to adequately emphasize LBSA issues.

These initiatives have had a measure of success in spite of various constraints including limited national budget allocations, limited private sector participation, and intermittent and unsustainable project-based donor support. It is suggested that these interventions can be improved by developing appropriate legislative, policy and institutional frameworks to institutionalize public awareness and education programmes. In addition, priority areas for attention could be identified and be incorporated as action points in the Strategic Action Plan (SAP) for the WIO region.

Other critical challenges include the significant disparities in educational and socio-economic opportunities faced by historically disadvantaged people (particularly in South Africa); the practical challenges of establishing or mounting awareness and educational programmes among coastal zone stakeholders in rural and remote coastal areas; and the need to focus more specifically on target groups such as key decision makers, women and youth (SEACAM, 2001). As regards socio-economic and educational disparities, it would be necessary to devise methodologies to disseminate technically sophisticated information, *inter-alia*, by translating the same into “plain language” and in some cases go further to accommodate illiterate coastal communities and other stakeholders (*Ibid*). A corresponding challenge is to ensure that

educational and public awareness programmes are available at all levels, and incorporate indigenous knowledge and local expertise, for wider and greater acceptability and sustainability.

Some of the national institutions responsible for educational and public awareness programmes in the WIO region include national environmental authorities such as NEMA (Kenya), NEMC (Tanzania), DEAT (South Africa), MICOA (Mozambique), DNE (Comoros), ONE (Madagascar), MENR (Seychelles) and the Department of Environment (Mauritius). Others include educational institutions such as universities, which offer, among others, short courses and capacity-building for the development of public education materials. Elsewhere, there is a significant contribution to educational and awareness programmes by NGOs as highlighted the discussion of their roles under section 5.5.

### *Educational priorities*

Among the main outstanding priorities for further action include the raising of adequate and sustainable financing for LBSA interventions, especially from national budgeting allocations, private public partnerships and longer term development partner support, as discussed in section 5.6. Another priority focus area is the development of capacity among institutions and human resources engaged in educational and public awareness issues on LBSA. In this respect, the countries ought to take concrete steps towards establishing effective legal policy and institutional frameworks to support the development of needed capacities. One practical approach would be to create appropriate frameworks to encourage and support private sector participation in educational and public awareness programmes. This could be part of their commercial advertisements for their goods and services, corporate and social responsibilities, and could entail financial contributions, the use of their commercial outlets and networks, and their profiles and standing. Such programmes could be integrated in private sector activities in key production and commercial activities such as tourism, fishing, mining, urban developments, aquaculture and agriculture. Some of the possibilities suggested by Uku and Francis (2007) include the use of beach clean-up campaigns to raise awareness in schools, as one area in which the WIO-LaB project could contribute, particularly in countries like Tanzania (notably Zanzibar) and Comoros, modelled along the International Coastal Clean-up campaigns that are held in South Africa and Kenya annually. Moreover, the Coastal Environment Award Scheme conducted in Tanzania was successful in raising awareness of environmental issues as well as securing the support of communities during the development of the National Integrated Coastal Management Strategy. This programme promotes public participation in management of natural resources in the coastal region of Tanzania and encourages the use of environment-friendly technologies and practices and demonstrates government commitment to ICZM. CEAS could be used to motivate the communities to establish beach management units (BMUs), like those now established in Kenya and around parts of Lake Victoria, make them operational (Uku and Francis, 2007). Besides, South Africa, other countries in the region such as Kenya, the Seychelles and Mauritius, with substantial tourists visiting their coastal areas could benefit, and be assisted to initiate Blue Flag Programme for their beaches (Uku and Francis, 2007).

Finally, to address both technical capacities for the longer term and to increase the national impact of educational and public awareness campaigns, efforts should be made by countries of the WIO region to introduce and integrate coastal and marine environment, including LBSA issues in the formal curricula of schools and appropriate tertiary education institutions. At

present, environmental studies in the formal school curriculum is rather sparse and even more insignificant with regard to coastal and marine or LBSA issues. This is in spite of the finding by Uku and Francis (2007) that some of the countries do have well-established educational programmes at the higher level. A notable exception is South Africa, where the Marine and Coastal Educator's Network (MCEN) is a countrywide initiative that reaches more than 400 000 learners every year, often through the conduit of a specialist facility such as SeaWorld-Durban. Simultaneously, curriculum support is provided by MCEN, so that coastal and marine conservation issues, including LBSA are promoted at school. Ultimately, enhanced public awareness and education on LBSA issues will lead to greater and inclusive public ownership and participation in appropriate interventions, and sustainable development and utilization, financing, and management of the enormous coastal and marine environment and resources of the WIO region.

### **Towards an LME-Based Regional Governance Strategy**

The countries of the Western Indian Ocean Region have agreed that the application of an LME governance approach, based on the advice of science, is 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 (i.e 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 WIO 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.

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 through the UN Agencies, the GEF, the World Bank, the European Union, NGOs and the private sector. These resources will be optimized immensely if there was a mechanism for collaboration/cooperation and partnering through the application of an ecosystem based governance system. In designing such a system, it is worth recalling the essential elements of such an approach. A paper prepared for the 2010 Global Ocean Forum<sup>13</sup> examined the various definitions endorsed by countries legislation and commentators and extracted the key common principles.

## **5.8 Conclusions**

Despite a plethora of policies and legal instruments, the degradation of coastal and marine habitats has continued. No doubt the complex and integrated nature of the coastal zone adds to the challenges of management, but overall the governance arrangements appear largely to have failed. This analysis has identified the many stakeholders directly involved or implicated in

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<sup>13</sup> David Freestone, Biliana Cicin-Sain, et al, *Improving Governance: Achieving Integrated Ecosystem Based Ocean and Coastal Management*. Policy Brief for 5<sup>th</sup> Global Forum on Oceans, Coasts and Islands UNESCO, Paris 3-7 May 2010, 22 pp.

REFERENCE – IT IS PUBLISHED BY THE GLOBAL FORUM

<http://www.globaloceans.org/sites/udel.ed.globaloceans/files/policyBrief-EBM-ICM.pdf>.

governance of the coastal zone. Traditionally, governance of these sectors was based on a sectoral approach; each managed separately through dedicated legal/regulatory, institutional and policy frameworks. This fact, in addition to the often overlapping mandates and responsibilities of such stakeholders, makes LBSA management a complex undertaking. Clearly there is a great need for an integrated approach, as is being developed by most of the WIO countries. There are a number of common causes that are at the root of these weaknesses with respect to inappropriate and incoherent legislation or lack of adequate institutional framework for dealing with LBSA issues. These are often inter-related and a summary of such ‘root causes of governance’ is presented in Box 5.3.

- Box 5.3 Summary of common governance related problem areas.

<b>Policy and legislative inadequacies</b>	<ul style="list-style-type: none"> <li>• Inadequate updating, implementation, enforcement and monitoring of relevant legislation</li> <li>• Inadequate ratification and domestication of relevant international and regional instruments</li> </ul>
<b>Limited institutional capacity</b>	<ul style="list-style-type: none"> <li>• Lack of mechanisms for effective coordination and inter-sectoral governance</li> <li>• Inadequate human resources and technical capacity in institutions charged with the responsibility of addressing LBSA-related issues</li> </ul>
<b>Inadequate awareness</b>	<ul style="list-style-type: none"> <li>• Inadequate awareness, understanding and appreciation of the economic value of coastal/marine ecosystem goods and services among policy makers and legislators, the civil society and the private sector</li> </ul>
<b>Inadequate financial mechanisms</b>	<ul style="list-style-type: none"> <li>• Inadequate financial mechanisms and resources for dealing with LBSA-related issues</li> </ul>
<b>Poor knowledge management</b>	<ul style="list-style-type: none"> <li>• Lack of adequate scientific and socio-economic data and information to support policy making, monitoring and enforcement</li> </ul>

## 7.2 Weaknesses and problems related to governance of the coastal and marine ecosystems in the WIO

Notwithstanding the few shortcomings in ratification of regional and international conventions, the main challenge to countries in the region remains the actual implementation of such conventions in terms of national policy, legal and institutional frameworks. Based on a region-wide assessment of the status of ratification and implementation of relevant convention (UNEP/Nairobi Convention Secretariat and WIOMSA, 2009c), the key challenges faced by countries from the region in this regard may be summarized as follows: Inadequate Technical Capacities; Inadequate Financial Capacities; Overlapping/Uncoordinated Institutional Mandates; Multiplicity of Sectors affecting LBSA Issues; Lack of or inadequate Political Goodwill; Language and Legal System Constraints; Multiplicity of Regional Affiliations and Political Instability. An overview of each of these challenges is presented below.

### (i) Inadequate Technical Capacities

Across the WIO region lack of, or access to, adequate technical capacities is seen as a factor that constrains ratification and/or implementation of LBSA relevant conventions. With regard to technical capacities, most of the countries would benefit from strengthening their human capacity and associated resources in the process of evaluating and selecting which conventions to negotiate or ratify. Often, state legal services are overstretched in dealing with a plethora of national domestic issues. Consequently, many LBSA relevant conventions are not ratified by the

countries, and even where they are ratified they are not adequately implemented. This means that the countries will need support for enhancement of human technical capacities through *inter-alia*, training courses and programmes, as well as attendance and participation at relevant technical meetings concerning LBSA related conventions. Other technical requirements which are lacking or inadequate include basic equipment such as computers (including software), telecommunication facilities and new information technologies generally. These constrain the effective or timely delivery of services to the relevant departments even in the cases where the human resource is available.

**(ii) Inadequate financial capacities.**

Membership and implementation of many of the LBSA-related conventions and protocols requires a financial commitment. Although the funds required vary for different conventions and is not excessive, many countries do not prioritise such funds so that they do not meet their subscription requirements under the various conventions. Several of the countries run into years of arrears on their financial contributions to the conventions. This also affects the countries' participation in negotiations, preparatory work, public education, advocacy, awareness and other work required for timely ratification and effective implementation of the conventions. Responsible ministries and departments such as state law offices, national environmental agencies, local or municipal authorities are therefore unable to effectively deal with their mandates concerning ratification and implementation of the conventions and protocols.

**(iii) Overlapping/uncoordinated institutional mandates.**

In those countries with greater devolution in their political systems, such as the Comoros and South Africa, there is a tendency to have some institutions falling under different layers of Government (i.e. national, provincial or local) or under different government ministries and departments. Inadequate coordination also affects the other countries such as Kenya, Tanzania and Mauritius. In the latter case, the Ministry of Foreign Affairs is responsible for the negotiation, ratification and adoption of international conventions while the environmental mandate *per se* belongs to the Ministry of Environment. On the other hand the Ministry of Agro Industry and Fisheries, and Local Authorities are directly responsible for LBSA related issues. Others include the Wastewater Management Authority. All these ministries and departments do not seem to have a coordinating mechanism, thus leading to lack of clarity as to their respective mandates in ratification and implementation of LBSA-related conventions and protocols.

In Kenya, the situation is similar, with ministries responsible for water, environment and natural resources, local authorities, transport and agriculture each having a role in LBSA, but without a coordinating mechanism. Apart from the National Environment Management Authority (NEMA), which is the premier environmental agency, there are other institutions such as the Coast Development Authority, water services boards, local authorities, regional development authorities, and research institutions, which all have certain LBSA-related mandates.

While South Africa has a large and sophisticated governance structure, coordination problems also occur, mostly attributable to poor administration of issues relating to LBSA-related conventions and protocols. The Department of Foreign Affairs (DFA), carries overall responsibility for negotiations and adoption of international conventions. Significantly, it includes a Marine and Coastal Environment Directorate. The Department of Environmental

Affairs and Tourism (DEAT) is also involved in negotiation meetings and in ensuring that the relevant international conventions are implemented. Similarly, the Department of Water and Forestry (DWAF) is responsible for water quality and water-related international legal instruments. Other national government departments with LBSA-related mandates include the Department of Trade and Industry, the Department of Transport and the Department of Agriculture. Thus, at the horizontal level, various national government departments lack co-ordination and appear to have overlapping mandates. At the provincial and local government level there is yet more overlapping and lack of co-ordination. There are four coastal provinces in South Africa, which have a direct bearing on LBSA issues: Northern Cape, Western Cape, Eastern Cape and KwaZulu-Natal. While some national departments have provincial equivalents, others do not have. Moreover, while provincial and local governments do not have direct responsibility concerning negotiation and ratification of international conventions and protocols, they have responsibilities concerning implementation at the local level. At the level of implementation, further difficulties arise due to the multiplicity of laws and institutions, as well as the mandates of the provincial and local government.

Mozambique has potentially one of the best coordinating structures in its Ministry for the Coordination of Environmental Affairs (MICOA). This ministry is delegated to provide inter-ministerial coordination of environmental matters and report directly to the Council of Ministers. In practice this has not yet proven successful and there is unclear division of tasks of each of the key institutions involved in LBSA-related conventions which is a constraint to ratification and implementation. Weak intra and inter-institutional capacity accentuates these problems.

**(iv) Multiplicity of sectors affecting LBSA issues.**

Coastal zone management is complex and necessarily involves a multiplicity of sectors and players, especially concerning LBSA issues. These range from physical planning, local government/authorities, agriculture, tourism, mining and other natural resources extraction, forestry, fisheries, regional development and transportation (including road infrastructure, air and water ports). While all these sectors interact in practice, effective coordination is complicated. Yet, without adequately involving all these stakeholder sectors from different ministerial and departmental affiliations, successful management of LBSA can not be achieved.

**(v) Lack of or inadequate *Political Will***

Another common constraint is the absence of political will to tackle LBSA issues. There is a tendency to regard coastal and marine issues at the lower-end of national priorities, reflected in poor financial allocations and technical resources. This is also reflected in lack of comprehensive national policies to elaborate the Government's approach to LBSA instruments. Only a few countries (South Africa, Tanzania and Mozambique-and to some extent-Kenya) have sought to develop integrated coastal zone management (ICZM) policies. Thus, in many respects an overarching policy framework concerning the negotiation, ratification and implementation of LBSA-related conventions and protocols is lacking in most of the countries in the WIO Region. The lack of, or inadequacy, political will is also reflected in the low level of public education and awareness concerning LBSA-related conventions and protocols and issues generally. Consequently, public participation in LBSA-related conventions and protocols is generally weak.

**(vi) Language and legal system constraints.**



Differences in language can also handicap negotiation, ratification and implementation of LBSA related conventions and protocols. Countries of the WIO are more or less evenly divided between French and English, with the mainland states being largely Anglophone with the island states mostly Francophone. Seychelles and Mauritius are essentially bilingual. This language disparity impedes the region's capacity to collectively negotiate or agree to ratify and implement LBSA relevant conventions. This is further complicated by the different legal systems existing in the various countries. This is particularly so for Mozambique which is Portuguese speaking, while most of the conventions and protocols are in English and/or French. This includes the Nairobi Convention and its protocols, including its newly drafted LBSA Protocol.

The civil law system common to Francophone and Lusophone countries, such as in Madagascar, Comoros and Mozambique, creates long and complex procedures for the ratification and implementation of conventions. There are detailed constitutional and legal processes to be adhered to before ratification and implementation can take place.

Moreover, for countries with a dualist approach to international law, there is the necessity of domestication of international law instruments through consequential national legislation. This means that where the national parliament has not enacted a law to domesticate an international convention or protocol even if the latter were ratified, the same would not be implemented in the country. This usually causes delay or impediment to implementation of international legal obligations.

**(vii) Multiplicity of regional affiliations.**

Countries of the WIO have formed a series of different regional economic blocks and arrangements, especially concerning differences between small island developing states (SIDS) and mainland Africa. Examples include the Indian Ocean Commission (IOC) (all the island states); East Africa Community (EAC) (Kenya and Tanzania); Southern Africa Development Community (SADC) (South Africa, Mozambique, Mauritius, Madagascar, Seychelles and Tanzania); and Common Market for Eastern and Southern Africa (COMESA) (Comoros, Madagascar, Mauritius, Seychelles, Kenya, Tanzania, and Mozambique). This multiplicity of regional arrangements has implication for the WIO as it may impede a common regional approach towards LBSA in that there will be varying levels of commitments; priorities and standards regarding LBSA. However, the draft LBSA Protocol to the Nairobi Convention is reflective of a growing collective regional consensus and approach to tackling LBSA issues generally.

**(viii) Political instability.**

Several countries which have in the past suffered political instability, including Mozambique and South Africa during the years of apartheid rule. Somalia, though not within the review of the present study has suffered devastating internal revolution and political instability for close to two decades. Political instability, especially where armed conflict exists, leads to a general breakdown of legal and institutional systems as well as direct destruction and degradation of the environment in many (but not all) cases. Periodic political instability in some countries has also affected their participation in negotiations, ratification and implementation of LBSA-related conventions and protocols. For example, the Comoros experienced several years of political and institutional instability, with frequent Government changes which caused confusion in

government programmes including environmental activities and programmes. In the process, Comoros lost time and opportunities in terms of participation in negotiation, and ratification and implementation of LBSA relevant instruments. Similar issues have arisen in Madagascar, which impeded its full participation at several forums to advance LBSA initiatives.

### **Framework for common Strategic Action Programme for the WIO**

The UNEP/GEF WIO-LaB Project and ASCLME-SWIOF Projects delivered separate Strategic Action Programmes (SAPs) that lead to two GEF financed projects, namely; (i) The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (SAPPHIRE) and (ii) Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities (WIOSAP). These projects were implemented by the UNEP/Nairobi Convention as part of its Work Programme. Both projects benefited the Governments of Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania. Both projects ultimately contributed to achieving effective long-term ecosystem management in the Western Indian Ocean LMEs in line with the Strategic Action Programmes, as endorsed by the participating countries, through a series of integrated components; each intended to achieve various outcomes.

In view of the fact that GEF and several of the UN Implementing Agencies have adopted the Large Marine Ecosystem approach to the management of coastal and offshore waters, it was considered to be effective to prepare a Joint TDA for the WIO region incorporating the land-based sources and activities (LBSA) issue as well as issues related to fisheries and large marine ecosystems (LMEs) of the WIO region. This joint TDA that takes onboard the assessment of the threats, impacts and root causes of degradation of the coastal and marine ecosystem in the WIO, will guide the formulation of a Joint Regional Strategic Action Programme (SAP) for the coastal and marine ecosystems and LMEs that identifies an agreed set of governance reforms that the countries will jointly implement to address the priority issues identified in this Joint TDA. It is expected that the common SAP for the WIO region will be implemented within the framework of UNEP-Nairobi Convention, effectively contributing to annual programme of work of the convention.

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