

INSTITUTIONS: PART 1 - STATE

This section provides a synthesis of the current status of Institutions and the various governance frameworks that may have a role to play in management of the marine and coastal environment, generally in the Western Indian Ocean (WIO) region, and also more specifically in the three countries covered in this programme.

The first part of the section focuses on relevant international and regional institutions and organisations involved in some manner with coastal and marine issues. These include the various United Nations Agencies, the African Union, Regional Economic Integration Organizations, International and Regional Civil Society Organisations (CSOs), River-basin Governance frameworks, and Regional Fisheries Management Organisations (RFMOs).

This is followed by a description of the situation at a national level in the three countries, including relevant Legal and Policy Frameworks, National Institutions and Civic Society Organisations, as well as current or planned projects and programmes relating to the marine and coastal environment.

While much of this section is descriptive, an attempt is made to identify how each component may be relevant to a potential Mangrove for the Future project in the WIO (MFF-WIO).

1.0 International and Regional Institutions and Organizations

There are a number of international institutions active in Kenya, Tanzania and Mozambique involved in environmental protection (including the marine environment) and the socio-economic development of the WIO region. As the following descriptions reveal, their mandates, influence, and priorities within the region, and the three countries included, are varied.

1.1 United Nations Environment Programme (UNEP)

The UNEP is a specialized UN programme and is the premier global body with an environmental mandate. It is led by a Universal Governing Council of 193 members elected by the General Assembly, and an Executive Director, with its headquarters in Nairobi, Kenya. The UNEP reports to the UN General Assembly through the Secretary General of the UN. It was established in 1972 by G.A res.2997 (XXVII) (1972) following the 1972 Stockholm Conference, and it has since continued to exercise the global environmental mandate. Its constituent instrument commits it to promote international environmental cooperation, to provide policy guidance for the direction and coordination of environmental programmes within the UN system, and to receive and review reports from the Executive Director of the UNEP. Other mandates include reviewing the world environment situation, to promote scientific knowledge and information and to contribute to technical aspects of environmental programmes, and keep under review the impact of national and international environmental policies on developing countries. Its key programme themes are: environmental assessment, management, and supporting measures. Its most significant contribution is in the realm of international environmental law made both through formal international (including regional) instruments and soft law instruments.¹

According to Sand ² the UNEP “continues to serve as the centrepiece of environmental activities within the UN family of organizations”, and although it did not originally have a formal

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See <http://www.unep.org>;

Petsonk, “The Role of the UNEP in the Development of International Environmental Law”, 5 Am.U.J.

international legislative mandate, it has nevertheless succeeded in initiating and negotiating no less than 48 multilateral environmental conventions and protocols since 1976 initially through diplomatic conferences convened under its auspices and subsequently in the context of the Montevideo Programme.

The UNEP's main role is generally that of a catalyst for action by other institutions or states. It normally undertakes studies or enquiries into environmental problems and elaborates programs, but implementation is usually undertaken by the UN as a whole, often with the aid of regional governmental or non-governmental organizations and individual states.

The UNEP's mandate on management of the environment includes the legal and policy regulation of human activities that have any measurable impact on the environment. In this regard UNEP has over the decades played a pivotal and influential role in the development of various instruments of environmental law. On the marine environment, as early as 1974, UNEP adopted a regional approach to the management and protection of the oceans and seas of the world. This led to the development of the regional seas programmes (RSPs), including the Nairobi Convention and Action Plan for the Eastern Africa region. Although outside of Eastern Africa, 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.³ Under this regional approach, various regional treaties and protocols and action plans for different maritime regions have been established and operationalized.

The UNEP Africa Marine & Coastal programme provides support to African coastal states to address marine and coastal environmental challenges through ecosystem-based management by creating opportunities through partnerships, and by building on existing initiatives. The programme aims to support and facilitate governments in their efforts to better manage and restore critical ecosystems by enhancing capacities of the Nairobi Convention member states to utilize integrated ecosystem management approaches into their development planning. The programme also aims to enhance capacities of member states to undertake integrated assessments and valuations of key ecosystems including vulnerable coastal cities and communities. UNEP has been collaborating with IUCN in the preparatory phase of MFF through Component 1 of the Programme on Development and Implementation of Integrated Ecosystem Based Management of Marine and Coastal Resources.

UNEP's Medium Term Strategy (2010-2013) (MTS) sets out a vision for the organisation as "the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimension of sustainable development within

of International Law and Policy 351 (1990); Sands P, and Klein,P: *Bowett's Law of International Institutions* 5th Ed (2001), pp72-73; Bodansky D,Brunnee,J and Hey E. (Eds): *The Oxford Handbook of International Environmental Law*_(2007), pp2-3, 34.

² Sand, P.H: "The Evolution of International Environmental Law", in Bodansky D,Brunnee,J and Hey E. (Eds): *The Oxford Handbook of International Environmental Law* (2007), pp30-43, at p 34.

³ UNEP/Nairobi Convention Secretariat. *Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment*, UNEP Nairobi, p 236.

the United Nations system and that serves as an authoritative advocate for the global environment.”

The MTS identifies six cross-cutting thematic priorities where delivering tangible results against each of the priorities will be the focus of UNEP efforts in the period 2010–2013:

- (a) Climate change
- (b) Disasters and conflicts
- (c) Ecosystem management
- (d) Environmental governance
- (e) Harmful substances and hazardous waste
- (f) Resource efficiency – sustainable consumption and production

The vision of the UNEP Marine and Coastal Strategy (2009) is to provide a framework for ensuring *prosperous and healthy oceans and coasts where conservation, productivity and resource use are sustainable*.

The UNEP Marine and Coastal Strategy defines four objectives that guide UNEP in its work with the Regional Seas Programmes (RSPs), the Global Plan of Action for protecting the marine and coastal environment (GPA), the UN family, governments, regional organizations, industry, NGOs, researchers, civil society and communities.

These are:

1. *Land-Ocean Connections*: encourages countries to integrate the management of coastal watersheds, coastal areas and the marine environment to optimise ecosystem services and resilience of marine and coastal systems.
2. *Ecosystems for Humanity*: to identify, assess and value the status, key drivers of change and services of marine and coastal ecosystems and their link to human well-being.
3. *Reconciling Use and Conservation*: to ensure that appropriate governance frameworks, management tools, capacity and options are available for regions, countries, communities and the private sector to effectively engage in the sustainable management of marine and coastal ecosystems including reconciling competing uses.
4. *Vulnerable People and Places*: to strengthen the ecological, economic and social resilience of vulnerable communities and places, including SIDS, to improve access and benefit sharing arrangements and to adapt and respond to natural disasters and climate change.

Although it is an international institution with a global environmental mandate, its physical headquarters location in Nairobi makes it a central player at the regional African and WIO. This provides a platform for sub-regional African cooperation on the protection of the coastal and marine environment. The UNEP’s key strength is to strengthen efforts towards addressing environmental issues within the region and beyond, thus making it a very influential player in the

region's coastal systems. It is for this reason that the organization is seen as a key partner in the current MFF-WIO process

1.1.1: The UNEP Nairobi Convention Secretariat

An interesting and relevant institutional detail for UNEP with regard to the Western Indian Ocean generally and the three focus countries - Kenya, Tanzania and Mozambique - is that the UNEP is also the Secretariat of the 1985 Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region (the 'Nairobi Convention' amended 2010), as well as its three Protocols. Originally it included two protocols: the Protocol Concerning Protected Areas and Wild Fauna and Flora in the East African Region (the Protocol on Protected Areas (SPA)) and 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. A particular strength of the Nairobi Convention framework is that it has achieved 100 % ratification of the convention and the two initial protocols by all signatories which is a rare achievement for a regional or international convention.⁴

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 recognizes "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...".

The SPAW Protocol recognizes "...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). Article 2 provides 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 endeavor 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 Protocol 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. This protocol is of particular importance to the protection of mangroves and other species of flora and fauna across the WIO

⁴ Ibid.

region including the three focus countries. It also addressed anthropogenic pressures on these ecosystems.

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...' The Protocol obliges parties to cooperate (Article 3), exchange information (Article 4), and provide mutual assistance (Article 6).

A third Protocol concerning Land Based Sources and Activities (LBSA) to the Nairobi Convention was adopted by the Sixth Conference of Parties (COP 6) in March/April 2010 in Nairobi Kenya, together with the Amended Nairobi Convention. The development and adoption of the LBSA 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. In particular the development of the LBSA protocol was based on the wide recognition by the Contracting Parties that pollution from land-based sources and activities constitutes one of the major threats to the sustainability of the marine and coastal environment in the WIO region. The LBSA Protocol thus provides the legal framework for addressing pollution related to land based activities. The LBSA Protocol is awaiting ratification or accession by the contracting parties.

A fourth protocol to the Nairobi Convention on Integrated Coastal Zone Management (ICZM) has been drafted and is expected to be negotiated and adopted in the biennial period 2013-2014. The purpose of this Protocol is to provide a framework for regional and national integrated coastal zone management for sustainable development within the geographical coverage of the Protocol. In Article 5 the protocol obligates contracting parties to individually or jointly take appropriate measures in conformity with international law and in accordance with the Convention and this Protocol, to ensure implementation of integrated coastal zone management in the Region.

Article 15 contains the following provisions on climate change and variability in the coastal zone:

Each Contracting Party shall systematically integrate climate change adaptation and mitigation measures into all ICZM frameworks. In this regard, the Contracting Parties shall:

- (a) take into account all climate change-induced risks the coastal zone faces such as, sea level rise, increase in frequency or intensity of extreme weather events, ocean acidification, and their related consequences on ecosystems and coastal populations;
- (b) ensure that policies contribute to building resilience of coastal and marine ecosystems, economies and populations to climate change and variability; and
- (c) cooperate to ensure that where there are transboundary dimensions of climate change and variability, collective regional interventions are made.

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 (Coral Reef Task Force, Marine Turtle task force, Mangrove network, Legal and Technical Working Group, Forum for Academic and Research Institutes (FARI)). 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 based at the UNEP headquarters in Nairobi, Kenya, and a Regional Coordinating Unit (RCU) based in the Seychelles. The UNEP-based secretariat works closely with the Seychelles, 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.

Kenya, Tanzania and Mozambique all belong to the Nairobi Convention and its protocols as contracting parties, and therefore sit on its various governance forums such as the COP, forum of focal points, *ad hoc* taskforces and working groups. The inclusion of the Nairobi Convention (through its secretariat) as a partner to the current MFF-WIO initiative is considered essential for the success of the programme through facilitating and strengthening political support from the three member states.

1.1.2 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 its mandate is 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.

The UNEP Regional Office for Africa has served as the secretariat to AMCEN since its inception. Kenya, Mozambique and Tanzania alongside other WIO countries are actively engaged in AMCEN.

AMCEN led the process for the development of the action plan for the Environment Initiative for the New Partnership for Africa's Development (NEPAD). It endorsed a framework NEPAD

Environment Action Plan which commenced in 2002. 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 component of NEPAD.

AMCEN has also promoted and encouraged the preparation of the comprehensive regional report on the state of Africa's environment, *Africa Environment Outlook (AEO)*, by the UNEP. The AEO is an instrument for monitoring and reporting on the environment and provides valuable information for adaptation measures. 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 Africa region's two marine and coastal conventions, namely, the Nairobi Convention and the Abidjan Convention. The AMCEN Bamako Declaration of 2010 called on Ministers to support the implementation of the two conventions. In particular, the declaration states: AMCEN Bamako declaration of 2010 provides for a focus on the marine and coastal environment and includes the following:

- To urge the African Union Commission, together with the United Nations Environment Programme and the United Nations Economic Commission for Africa and other partners, to develop a marine and coastal environment strategy for Africa, taking into account the adverse impacts of climate change and the need to improve communities' livelihoods;
- To encourage countries to develop national and subregional strategies and action plans on climate change and the marine and coastal environment;
- To urge States and relevant organizations to expedite the process of ratification, acceptance or approval and implementation of the Amended Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean and the Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities, adopted by a conference of plenipotentiaries on 1 April 2010;
- To urge the United Nations Environment Programme and partners to support the implementation of the strategic action programme for the protection of the coastal and marine environment of the Western Indian Ocean from land-based sources and activities that was endorsed at the sixth meeting of the Contracting Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, held on 31 March 2010 in Nairobi;
- To call upon coastal States to support a mangrove ecosystem management project being led by the African Mangrove Network and funded by the Global Environment Facility;

1.2 African Ministerial Conference on Water (AMCOW)

The African Ministerial Council on Water (AMCOW) was formally launched in Abuja, Nigeria in 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 practices 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. It also provides a forum for dialogue with UN agencies and other partners on water issues, promotes participation in regional studies regarding climate change and development of observation networks, facilitates information exchange and aims to develop policies and strategies for addressing water issues. 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.

The AMCOW institutional set-up consists of a Full Council of Ministers (the minister responsible for water from each member country), and an Executive Committee with a President/Chair. The Executive Committee is composed of three representatives/water ministers from each of the five sub-regions: West Africa, Eastern Africa, Central Africa, North Africa and Southern Africa. Each sub-region has a sub-regional Secretariat (usually housed in the respective Regional Economic Community) for coordination of sub-regional activities. Each sub-region is headed by a Vice President. The main AMCOW Secretariat is in Abuja, Nigeria and is headed by an Interim Executive Secretary and support staff. The Executive Committee is advised by a Technical Advisory Committee (TAC).

1.3 New Partnership for Africa's Development (NEPAD)

NEPAD is a vision and programme of action for the 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.

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.⁵

In terms of activities in the marine and coastal arena, and around climate change issues, the African Union (AU) and its NEPAD Programme has until now mainly put effort into developing planning frameworks. For example the AU is in the process of developing an African Climate Change Strategy which includes a chapter on the Coastal and Marine Environment, while a start has also been made on developing a strategy to address climate change issues in the African Fisheries and Aquaculture sectors. Several new initiatives designed to support projects on the ground have started more recently. For example, NEPAD's Fisheries and Aquaculture programme run through its Planning and Coordinating Agency (NPCA) in South Africa is actively supporting Fisheries Improvement Programmes (FIPS) in collaboration with the Marine Stewardship Council (MSC) in all three countries included in this MFF-WIO process, and pledges to support mariculture development in Eastern Africa and the WIO region have recently been made.

Institutionally, the Fisheries and Aquaculture programme of the NPCA works closely with the AU-IBAR (Inter-African Bureau for Animal Resources) based in Nairobi, Kenya. The presence of this arm of the AU as well as NEPAD's Coastal and Marine Secretariat (COSMAR) in Nairobi provides opportunity for the MFF-WIO to tap into these other continental programmes.

⁵UNEP/Nairobi Convention Secretariat. Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment, UNEP Nairobi.

1.4 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 whose results 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 to address the many social, economic and environmental problems that are either transboundary in nature, or common to most countries. The initiative drew from scientific expertise, such as that within the ranks of the Western Indian Ocean Marine Science Association (WIOMSA), and from individual countries to identify priority areas for action. It has led to the incorporation of a coastal and marine sub-component of the environment component of the NEPAD Action Plan referred to above. The African Process has a secretariat known as the NEPAD Coastal and Marine Secretariat (COSMAR) and is based in Nairobi, Kenya.

1.5 International Maritime Organization (IMO)

The IMO (formerly IMCO) was established in 1948 and transformed its name to the present one in 1982.⁶ Its constitutional mandate is broadly to promote the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships.⁷ IMO's framework of conventions and soft law instruments are primarily concerned with safety in international shipping and the control of marine pollution from ships and other vessels, but they do not establish any international enforcement or regulatory authority for the high seas. Much of the responsibilities and obligations defined in these instruments devolve to coastal states, flag states and port states. Kenya, Mozambique, and Tanzania fit into at least two of the foregoing categories. On the other

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The Convention on the International Maritime Organization (Geneva), 289 U.N.T.S 48; UKTS 54 (1950), Cmnd.589; 53 AJIL (1948)516. (In force 17 March 1958). A provisional Maritime Consultative Council was established in 1946 and a UN Maritime Conference in February-March 1948 drew up the Convention of the inter-governmental Maritime Consultative Organization (IMCO). There was considerable delay in securing the 21 requisite ratifications, seven of which have to be nations with one million gross tons of shipping. The Convention did not enter into force until 1957. In 1982 the name of the Organization was changed to IMO upon entry into force of the 1975 amendment to the 1948 Convention (Sands P. & Klein P.: *Bowett's Law of International Institutions*, 5th ed. (2001), p. 102). The IMO Convention itself has also been amended in 1964, 1965, 1974, 1977 and 1979.

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Ibid., Article 1.

hand, the IMO is implied as a “competent organization” for the international regulation of shipping under the 1982 UN Convention on the Law of the Sea.⁸

It seems that IMO’s mandate is more largely concerned with international commercial shipping and maritime safety than with the marine environment as such. In fact, its environmental conventions are all linked to one aspect of shipping or another. Of course, the core environmental mandate of the IMO regime is with sea-based or more accurately ship-based pollution and not just any marine environmental pollution or degradation. This scenario, partly also influenced by the interests of the international commercial shipping countries, leads to the conclusion that the IMO may not give enough attention or action in favour of the marine environment, especially where it is in conflict with commercial shipping interests.

The IMO through its Eastern Africa regional office based in Nairobi is involved especially with vessel-based pollution, maritime safety and ports around the WIO region.

Other instruments of the IMO that may be of relevance to the MFF-WIO programme include the Ballast Water Management Convention of 2004 which has provisions on invasive species dispersed through ballast waters. In addition, both the Port Management Association of Eastern and Southern Africa (PMAESA) and the initiative on Environmental Cooperation for Improved Performance in African Ports (PENAf) are starting to address the environmental aspects of the Ports operations in the WIO region.

1.6 The Food and Agriculture Organization (FAO)

The FAO is a UN specialized agency charged primarily with improving efficiency in the production of food and agricultural produce. It was established by the 1943 UN Conference on Food and Agriculture, and succeeded in functions and assets the former International Institute of Agriculture at Rome.⁹ Some of its key functions include: to collect, analyze, interpret and disseminate information relating to nutrition, food and agriculture; to promote international action with respect to research; to promote the improvement of education and administration relating to nutrition, food and agriculture. Others include the conservation of natural resources, and ensuring humanity’s freedom from hunger.¹⁰

The FAO has gradually progressed from its earlier development focus to accommodate environmental concerns and presently it covers sustainable approaches to fishing, aquaculture, water resource management, and agriculture, taking into account in all these fields the environmental impacts, conservation needs, habitat protection and the effects of pollution, as well as the deleterious effects of chemicals, pesticides and fertilizers used in agriculture. The

⁸ See for example, Articles 211,217,218 also The IMO: Implications of the entry into force of the UNCLOS for the IMO, LEG/MISC/2 (1997).

⁹ The International Institute of Agriculture had been created by a Convention of 7 June 1905 (for full text of original Convention, See Knipping (ed),_The United Nations System and its Predecessors Vol.II(1997), p.135.

¹⁰ See, <http://www.fao.org>; Sands, P. & Klein P. *Bowett’s Law of International Institutions*, 5th ed. (2007), p. 84; Birnie & Boyle: *International Law and the Environment*, 3rd ed. (2009) p. 73.

FAO has also promoted international environmental law making in various ways.¹¹ It was involved in the development of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas;¹² the 1993 Agreement to Promote Compliance with Conservation Measures on the High Seas;¹³ the 1995 Agreement on Straddling and Highly Migratory Fish Stocks;¹⁴ and in collaboration with UNEP, of the 1998 Rotterdam PIC Convention.¹⁵ Thus, the FAO's mandate invariably covers marine and coastal fisheries. However, its environmental competencies are implied rather than explicitly provided for.

The FAO has partnered with NEPAD's NPCA in the NEPAD-FAO Fish Programme (NFFP) to address fisheries issues on a continent-wide basis. The NFFP has initiated a process of establishing baseline with regard to the integration of climate change adaptation and disaster risk management in fisheries and aquaculture activities and policies in Southern and Eastern Africa, and links between this initiative and MFF-WIO could be explored. In addition, FAO and the SmartFish Project have recently collaborated with WIOMSA in organising a regional workshop to discuss challenges to Sea Cucumber management, and there is potential for further collaboration between these partners and the MFF-WIO initiative.

FAO programme of forestry including mangroves

1.7 Inter-Governmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO-IOC)

The UNESCO-IOC was established in 1960, as a scientific body which exists to provide scientific advice and research on matters of environmental importance in the marine field. It provides, alongside other scientific bodies "a diversity of knowledge and expertise,"¹⁶ and provides an independent source of publicly accessible information. Scientists cannot be expected to take policy decisions that are ultimately the responsibility of politicians and governments but they help "to refine problem definition and to identify and expand the range of response options", by setting out probable consequences of action or inaction.¹⁷ This is how UNESCO-IOC's role should be understood with regard to the marine environment. The UNESCO-IOC is active in the marine scientific research projects and has increasingly involved developing countries in joint research programmes. Usually UNESCO-IOC conducts research at the regional level through inter-governmental commissions such as those dealing with land based pollution, pollution from dumping, and fisheries. The research organization is visible and active in the WIO region.

¹¹ Birnie & Boyle: *International Law and the Environment*, 3rd ed. (2009) p. 73.

¹² 39(1966) Cmnd. 3028. 559 UNTS 285; UKTS

¹³ 33 ILM (1994) 969.

¹⁴ 6YbIEL 841. 34 ILM 1542; (1995)

¹⁵ 38 ILM (1999) 1. See also, Birnie & Boyle: *International Law and the Environment*, 3rd ed (2009), pp. 73-75; Sands P: *Principles of International Environmental Law*, Vol 1 (1994), pps 81-82. Sands P & Klein, P: *Bowett's Law of International Institutions*, 5th ed. (2001), pps 84-85.

¹⁶ Kimball L: *Treaty Implementation: Scientific and Technical Advice enters a New Stage* (Washington D.C 1996) p. 7, cited by Birnie & Boyle: *International Law and the Environment*, 3rd ed (2009) p. 99-100.

¹⁷ *Ibid.*

The UNESCO-IOC works closely with GESAMP whose reports have provided important information on the state of the marine environment to inform policy and management action.¹⁸ The UNESCO itself was responsible for the adoption of, and performs secretariat functions for, the 1971 Ramsar Convention¹⁹ and the 1972 World Heritage Convention.²⁰

The UNESCO-IOC Sub Commission for Africa and the Adjacent Island States (IOC-AFRICA) has recently collaborated with the IGAD Climate Prediction and Applications Centre (ICPAC), to produce regional consensus climate outlooks for the short and long rain seasons in the Greater Horn of Africa region. This partnership aims at bringing together selected oceanographers from the region to identify oceanic processes that drive climate in the region. These experts will provide ocean data and products that are required by the regional Climate Outlook Forum to improve their forecasts.

1.8 UN Development Programme (UNDP)

The UNDP is a UN specialized agency whose mandate is primarily socio-economic development. Unlike the UNEP, it has individual country presence, and has offices in Kenya, Mozambique and Tanzania, as well as other countries of the WIO region. It is therefore visible and arguably influential in the countries, especially in the socio-economic spheres.

The UNDP is involved in the countries and the WIO region by virtue of being the principal channel of multilateral, technical and investment assistance to developing countries, and including various environmental programmes, such as the Global Environmental Facility (GEF) which not only makes funds available to developing countries but has also initiated capacity-building programmes.²¹

Of key relevance is the GEF Small Grants Programme (SGP) established in 1992 and being implemented by UNDP. The SGP provides financial and technical support to projects that conserve and restore the environment while enhancing people's well-being and livelihoods with a view to demonstrating that community action can be instrumental in maintaining a balance between "human needs and environmental imperatives"²².

The SGP has a decentralized structure and is operationalized through country programme teams often hosted by UNDP Country Offices and composed of a National Coordinator (NC), Programme Assistant (PA) and a National Steering Committee. Each participating country adapts the SGP global strategic framework to develop a country programme strategy, taking into account existing national strategies and plans relating to the environment, economic development and poverty reduction.

¹⁸ *International Law and the Environment*, 3rd ed (2009), p 100.

¹⁹ 34(1976) Cmnd 6465; 11 ILM (1972) 963.

²⁰ 27 UST 37; 11 ILM 1358 (1972).

²¹ UNEP/Nairobi Convention Secretariat. *Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment*, UNEP Nairobi, p 236.

²² http://sgp.undp.org/index.php?option=com_content&view=article&id=100&Itemid=158#.US2pzPJmOSo

SGP National Steering Committees (NSC) are comprised of voluntary members, drawn from civil society organizations, government, UNDP, the academia as well as private sector and the media. The NSC guide the countries programmes and are responsible for approving grants, monitoring and evaluation and supporting learning processes. All three countries, Kenya, Mozambique and Tanzania are currently engaged in the Small Grants Programmes.

1.9 Regional Economic Integration Organizations

There are four main regional economic integration units relevant to the WIO region including the Southern Africa Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA), the Eastern African Community (EAC) and the Indian Ocean Commission (IOC).

In terms of membership, Tanzania and Mozambique are, and Kenya is not a member of SADC; Kenya is a member and Mozambique and Tanzania are not members of COMESA; Kenya and Tanzania are members of the EAC and Mozambique is not; and only the island states of the WIO 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 protect the coastal and marine environment.

1.9.1 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 with six of these also being members of the Nairobi Convention.²³ Mozambique and Tanzania are included in SADC while Kenya is not.

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. The

²³ Ibid, p 232.

SADC framework includes a 2001 Protocol on Fisheries, focusing mainly on inland fisheries as opposed to marine fisheries. There is no sector dedicated specifically to the marine environment but the Fisheries Protocol and the Shared Water Courses Protocol are both impliedly relevant to the coastal and marine environment. 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.²⁴

The Revised Protocol on Shared Water Courses follows from the International Water Courses Convention 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.

In recent years SADC has also developed a Climate Change Strategy but this is of a general nature and does not directly address marine and coastal issues.

1.9.2 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.’

There are currently nineteen member states within COMESA.²⁵ Five WIO countries, Seychelles, Mauritius, Madagascar, Kenya and the Comoros are COMESA members and party to the Nairobi Convention, with Tanzania recently leaving the group.

1.9.3 East African Community (EAC)

The East African Community is a regional intergovernmental 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 have not generally been a priority for the EAC and with only three (continental) members of the WIO region, and a focus mainly on inland issues, it has in the past had little relevance to regional

²⁴ Ibid.

²⁵ Ibid., p 234.

marine issues.²⁶ However, in July 2010, the EAC, COMESA and SADC launched a joint five-year programme on Climate Change Adaptation and Mitigation.

The aim of the programme is to inject Africa's Unified Position on Climate Change into the post-2012 United Nations Framework Convention on Climate Change (UNFCCC) global agreement so as to unlock resources for promoting strategic interventions that sustain productivity and livelihood improvement for millions of climate-vulnerable people in the region. Also the Programme aims to harmonize climate change programmes by the three regional blocs and address the impacts of climate change in the COMESA-EAC-SADC region through successful adaptation and mitigation actions to enhance economic/social resilience.

Specifically, the Programme's objectives are: mainstreaming climate change in national and regional policies and strategies; climate resilient and climate smart agriculture; vulnerability assessment and disaster risk reduction approaches; and climate change policy negotiations to provide African solutions to climate change.

The focus of the Programme is increasing investments in climate resilient and carbon efficient agriculture (climate-smart agriculture) and its linkages to forestry, land use and energy practices by 2016. The programme is funded by the Royal Government of Norway, the European Union Commission and UK's Department of International Development (DfID). The Programme is planning to hold a Regional Workshop for the WIO on "enhancement of coastal and marine issues in the Common African Position on Climate Change" in the near future and this may provide opportunity for the MFF-WIO to collaborate with this initiative on climate change issues.

1.9.4 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.

Inevitably, the principal focus of the five IOC countries is marine fisheries, to which most efforts and development are targeted. Central to fisheries at present is a number of Fisheries Partnership Agreements (FPAs).²⁷ Due to the vulnerability of island nations to the impacts of climate change this also forms a major focus in the IOC countries.

1.10 River-basin Governance frameworks

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

²⁶ Ibid.

²⁷ Ibid., p 235.

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, for coordinating responses to emergencies, for collecting data, and environmental matters including setting water quality targets and standards; and,
- River Basin Authorities go further 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 this Protocol.

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 organizations 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).²⁸

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, mandate to member states to determine with their own mechanisms most appropriate to their situations.

For WIO rivers, only four organizations: Tana and Athi River Development Authority (TARDA) (Kenya), Pangani Basin Water Office (PBWO), Zambezi River Authority (ZRA) and Komati Basin Water Authority (KOBWA) have an executive mandate, meaning that they have the authority to develop, implement and maintain joint projects and to make management decisions

²⁸ Malzbender, D and Earle, A 2007: The Impact and Implications of the Adoption of the 1997 UN Watercourse Conventions for Countries in Southern Africa. Africa Centre for Water Research, Cape Town, South Africa, cited in UNEP/Nairobi Convention Secretariat TDA (2009), p 244

about those projects. They are formed specifically for some type of joint project such as dam construction or operation, hydropower generation or irrigation. They do not engage in inter-state negotiations or policy formation – they only operate within their clearly defined mandate as agreed by the states concerned.²⁹

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 organizations 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. There is scope and opportunity for similar cooperation between Kenya and Tanzania, and Tanzania and Mozambique in respect of shared water courses or bodies: developing and managing water-related infrastructure in an effort to promote the socio-economic development which the sub region requires.³⁰

1.11 International and Regional Civil Society Organisations (CSOs)

Various international and regional, as well as national CSOs are active in the WIO region. While few focus only on the marine and coastal environment, some have dedicated programmes that address these issues. Apart from those key organisations listed below which are anticipated to play a direct role in the current MFF-WIO initiative, other international and regional CSOs active in the WIO region include Conservation International (CI); Eastern African Wildlife Society (EAWS); the Wildlife Conservation Society (WCS); BirdLife International and SEACOLOGY.

1.11.1 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. Its 1,100 staff are located in 40 countries thus it is a multicultural, multilingual organization with the world's largest and most important 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 and its undisputed strength is the scientific basis of its activities. IUCN has an active Global Marine and Polar Programme (IUCN GMPP) that focuses on the use of science and technology for the sustainable management and conservation of marine ecosystems and resources. This includes the provision of scientific information on the impact of climate change on the marine environment and policy recommendations on Ecosystem-based Adaptation (EbA) to international processes such as the United Nation Framework Convention on Climate Change (UNFCCC). GMPP also represents IUCN in a number of policy meetings such as those of the U.N. Food and Agriculture Organization (FAO) Committee on Fisheries, U.N. United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (UNICPOLOS) and meetings on the U.N

²⁹ Ibid.

³⁰ Ibid.

Fish Stocks Agreement. With regards to Protected Areas - GMPP works closely with the World Commission of Protected Areas (WCPA) – Marine in developing Marine Protected Area (MPA) best practice and providing guidance for site managers around the world as well as acting as a scientific advisory body in developing marine world heritage sites. The Global Marine Program has been working extensively in partnership with a variety of corporations from the private sector on themes such as tourism, offshore renewable energy and minimizing the environmental impacts from coastal oil and gas operations.

IUCN also has an Environmental Law Centre (ELC) based in Germany that is part of the rich network of environmental law expertise that comprises the IUCN Environmental Law Programme (ELP). The ELP is an integrated programme that is geared towards assisting decision makers with information, legal analysis, advisory services, legislative drafting, mentoring and capacity building at national, regional and global levels. The Programme also provides the opportunity and the forum for governments, non-government organisations and others to network and to share information and discuss ideas. The ELP is delivered through both the ELC as well as the IUCN Commission on Environmental Law (CEL) – a global volunteer network of over 500 environmental law specialists in more than 130 countries.

IUCN has been working in Eastern and Southern Africa for several decades and officially opened its offices in the region in the 1980s, pioneering a number of conservation initiatives. To improve its efficiency, in 2008 IUCN merged the two regional offices of Eastern and Southern Africa and established the Eastern and Southern Africa Regional Office (IUCN ESARO) in Nairobi, Kenya. Today, IUCN ESARO has 7 offices across the region: Kenya, Mozambique, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. The IUCN ESARO Programme is operationalized through six thematic areas³¹, each of which is led by a thematic technical expert and a technical team of Programme Officers (at both regional and country levels). There are 13 IUCN members across Kenya, Mozambique and Tanzania with Kenya as a State Member and Government Agencies as members in both Mozambique and Tanzania. 9 of these members are drawn from Non-Governmental Agencies, 3 of which are International Organizations.

IUCN ESARO has a long history of engaging in marine and coastal issues across the region and has contributed to several important interventions in the WIO region. These include: 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; and support to 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.³²

³¹ These include: Conservation Areas and Species Diversity; Business and Biodiversity; Drylands; Forests & Climate Change; and Marine & Coastal; and Water and Wetlands

³² UNEP/Nairobi Convention Secretariat. Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine

Currently, IUCN ESARO is implementing the Fair Coasts Initiative which is “enhancing the capacity of key stakeholders in the north-eastern Mozambican coast (government ministries and agencies, oil and gas companies, eco-tourism sector, coastal communities, fisher folk, etc) to maximize the opportunities presented by the discovery of natural gas to achieve fair and sustainable results in respect of economic development, biodiversity conservation and community development and to minimize or mitigate economic, social, political, business and biodiversity risks inherent in gas and infrastructure development in one of the world’s most biogeographically, geologically and oceanographically unique coasts. ESARO has also been working closely with UNEP to develop a GEF project as a follow up of the ‘Addressing land-based Activities in the Western Indian Ocean (WIO-LaB)’ executed by the Nairobi Convention Secretariat which officially came to a close on 30 June, 2010. The first phase of the project produced a Strategic Action Programme for WIO-LaB (WIO-SAP) which proposes Environmental Flow Assessment (EFA) as a decision tool to manage rivers wisely within the WIO region. Using funds from the Water and Nature Initiative (WANI) – IUCN contributed towards developing a 2nd phase titled “Partnerships for the Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land Based Sources and Activities (WIO-SAP)” which will implement the SAP. The intention is that IUCN will be specifically focus the component, ‘Mainstreaming Environmental Flow Assessment (EFA) as a tool for sustainable development across river basins, coastal and marine environments’. This component is aimed at implementing environmental flows assessments (EFA) and practices in four river basins in East Africa: Kenya, Tanzania, Mozambique and South Africa, with a view to inform the wider Parties to the Nairobi Convention beyond these four countries. ESARO also continues to engage in and support regional processes and is, for example, currently chairing the Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean, (WIO-C), described below.

1.11.2 Western Indian Ocean Marine Science Association (WIOMSA)

The Western Indian Ocean Marine Science Association WIOMSA was established in 1993 as a regional professional, non-profit, membership organisation. WIOMSA is dedicated to promoting the educational, scientific and technological development of all aspects of marine sciences throughout the region of the Western Indian Ocean (Somalia, Kenya, Tanzania, Mozambique, South Africa, Comoros, Madagascar, Seychelles, Mauritius, and Reunion (France), with a view toward sustaining the use and conservation of its marine resources. WIOMSA has a particular interest in linking the knowledge that emerges from research to the management and governance issues that affect marine and coastal ecosystems in the region. 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 (MASMA) Research Grant Programme and the organization of several international and regional marine scientific symposia and meetings, and joint efforts and initiatives (with other partners) to address a wide range of marine and coastal management issues.

Environment, UNEP Nairobi., p 253.

Over time, WIOMSA has experienced significant growth in all aspects of its activities, as evidenced by its annual budget which has grown from US\$ 50 000 in 1999 to almost \$ 2.5m in 2012. While WIOMSA's membership base was concentrated in Kenya and Tanzania in the 1990s, the situation now is quite different with the Association having activities in all the countries of the WIO region. In parallel to the increase in number of members, WIOMSA's membership profile has broadened to include more social scientists and practitioners complementing its earlier membership of natural scientists.

WIOMSA is governed by an elected Board of Trustees that meets annually and by its General Assembly of members, which meets every three years. The Board is the executive organ of the Association and comprises six elected members and two co-opted members. Board Members are prominent individuals who bring a wealth of relevant experience as well as regional and international perspectives to the governance of the Association. The Association is guided by a Constitution and is managed on a day to day basis by a small, independently established Secretariat based in Zanzibar, under the supervision of the Executive Secretary. The Secretariat also consists of elected WIOMSA Country Coordinators, who play an important role in providing a link between the Secretariat and the membership in the respective countries. WIOMSA's membership is open to any professional or institution from within and outside the region with an interest in the coastal and marine environment of the WIO region.

Over time, WIOMSA has built a diverse range of experience in coordinating research granting programs, developing regional research agenda, organization of capacity and professional development initiatives, linking science to management, advocacy, networking and dissemination of technical information. WIOMSA's core competences are also in project management and cross boundary work and administration. The Association has well-established administrative processes to support these functions.

WIOMSA's strength lies in its being a legal entity, its regional character, its multidisciplinary membership, a strong reputation for designing and implementation of projects/programs, a broad experience, extensive networks and flexibility in its operations. Due to its flexibility and networks built over the years, the Association works at different levels from local to global. Furthermore, WIOMSA has extensive knowledge and understanding of regional issues, priorities and processes, a good working relationship with key individuals and institutions and its management and financial systems are in compliance with international standards.

Research areas that have been supported over time through the MASMA and MARG Grant systems have been diverse, ranging from biological through to socio-economic studies. These have all focused on the coastal zone. WIOMSA supported a special programme in 2010/2011 where 11 projects focusing on climate change issues in the WIO were carried out. WIOMSA has recently launched a new 5-year funded programme focusing on the four priority themes: Vulnerability, Resilience & Adaptation; Coastal Livelihoods; Governance for the Future; and the cross-cutting theme of Ecosystem service research.

The organization has well established operations, partners and contacts in Kenya, Tanzania and Mozambique, and is well placed to provide support, through its membership, to the MFF

initiative in the WIO. It is anticipated that the WIOMSA Secretariat will coordinate aspects of the envisaged Research component once the MFF-WIO initiative is initiated.

1.11.3 Coastal Oceans Research and Development – Indian Ocean (CORDIO)

CORDIO specialises in generating knowledge to find solutions to the problems facing coastal people and marine environments in the Western Indian Ocean.

CORDIO is a regional research-based not-for-profit organisation focused on marine and coastal ecosystems in the Western Indian Ocean, with its coordination centre in Kenya but its wider network extends to Sweden and South Asia. CORDIO was initiated in 1999 as a direct response to the El-Niño caused mass bleaching and mortality of corals in the Indian Ocean in 1998. CORDIO East Africa was registered in Kenya in 2003 as a company, limited by guarantee, under the laws of Kenya and has an office in Mombasa and Nairobi.

CORDIO East Africa's research and conservation work addresses problems that are linked in the Western Indian Ocean: growing population and consumption; limited resources and habitat; high dependency; low education and wealth; poor governance. CORDIO emphasises linked solutions to these problems: ecological and social resilience; adaptive capacity; environmental conservation; sustainable use; education, policy and governance; investment in livelihoods and improved capacity. CORDIO implements work across three sectors to search for solutions and to enable their implementation: Research and Knowledge; Management and Policy; Capacity Building.

CORDIO's current strategic programme (2010-2014) has five objectives to address these marine conservation issues through the three sectors.

Objectives

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

To address these objectives CORDIO works to define processes, biodiversity and resource use in marine ecosystems in the WIO, and to assess ecological and socio-economic impacts of human activities including fishing and climate change. CORDIO has a strong focus on indicators and long term monitoring and assessment to monitor trends in key coastal environmental indicators. Research results and long term trends are published in CORDIO's WIO Status Reports, which also extend to the northern Indian Ocean, including Maldives, Sri Lanka, India and Indonesia.

CORDIO East Africa also works in environmental education and awareness through its Education Programme which focuses on school teachers, children and adult education, including literacy. CORDIO also has extensive experience in technical training in field based surveys on coral reefs, fishery monitoring and field identification of corals and fishes. CORDIO works in partnerships to achieve its objectives but also to build scientific capacity within the WIO region, particularly through supporting post-graduate students and through a student intern programme.

CORDIO East Africa also facilitates, in partnership, the development of alternative or supplementary livelihoods for coastal communities to reduce fishing effort on wild stocks. The livelihood programme is strongly focused on building capacity to manage marine resources through adult learning which includes the use of interactive telecommunication tools suitable for rural coastal communities.

The geographic scope of the East African office is the Western Indian Ocean (WIO): Comoros, Kenya, Madagascar, Mauritius, Mozambique, Somalia, Seychelles, Tanzania. CORDIO also works in the Gulf of Aden and Red Sea.

With a twelve year history of grant and project management CORDIO East Africa can demonstrate effectiveness and delivery with a broad range of partners.

1.11.4 World Wide Fund for Nature (WWF)

WWF was established in 1991 and operates in more than 100 countries. Its stated mission 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 interventions³³.

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. WWF-EARPO's goal is to ensure the conservation of biodiversity is in harmony with the needs and aspirations of local communities and through partnership with players from different sectors of society.

In the marine and coastal environment, the main interventions have included the WWF's East African Marine Ecoregion (EAME) project, based in Tanzania, with specific interventions in

³³ Ibid.

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 take a broader 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.³⁴

WWF has also been involved in working with partners in all three countries on the establishment of a network of Marine Protected Areas (MPAs) on the Eastern African coast. In addition the organization initiated the Rufiji-Mafia-Kilwa (RUMAKI) Seascape Programme in Tanzania which is currently entering its second 5-year phase. RUMAKI was initiated in recognition of the importance of the Rufiji delta and its mangrove ecosystems, together with the adjacent coast and offshore islands, to ecology of the entire southern coast of Tanzania. While social resilience and climate change was not the priority in the first phase of the Programme, these are scheduled to be main components of the second phase. The integrated approach taken in the RUMAKI programme has resulted in lessons that can be learned by the proposed MFF-WIO initiative, and the approach adopted can provide guidance for activities in all three countries.

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

The Consortium for the Conservation of Coastal and Marine Ecosystems in the Western Indian Ocean, (WIO-C) was launched at UNEP in Nairobi, in September 2006. Over the years, the governments of the WIO had 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, 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 the 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), NEPAD, and Inter-Governmental Oceanographic Commission (IOC-UNESCO), together with several newer members, are committed to anchor the Consortium in the Nairobi Convention. The Consortium is expected to provide a credible network of organizations 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, and now hosted by WIOMSA.³⁵

³⁴ Ibid.

³⁵ Ibid, p 255.

All the consortium partners on the MFF-WIO initiative are members of the WIO-C and as such it is anticipated that partnerships within this grouping will be integrated into the programme to enhance the long-term outcomes.

1.12 Regional Fisheries Management Organisations (RFMOs)

Several RFMOs are active in the WIO region and involve Kenya, Tanzania and Mozambique to a greater or lesser degree, depending on the scope of the individual nation's marine fishing activities.

Fisheries for tuna and tuna-like fishes in the WIO are managed by the Indian Ocean Tuna Commission (IOTC), while other shared resources (small pelagics, demersal fish, crustaceans, molluscs) are managed regionally by the South West Indian Ocean Fisheries Commission (SWIOFC) or the Southern Indian Ocean Fisheries Agreement (SIOFA). While all countries of the WIO are members of the SWIOFC, only Kenya, Madagascar, Mauritius, Seychelles and Tanzania are members of the IOTC. South Africa has the status of a 'Cooperating non-Contracting Party' to the IOTC.

With adoption of the Ecosystem Approaches to Fisheries by these fisheries bodies, fisheries issues are no longer discussed in isolation from the environment. This has created opportunities for collaboration between these fisheries bodies and other environmentally focussed initiatives such as the Nairobi Convention, including the development of an MOU between SWIOFC and the Nairobi Convention.

From the point of view of governance in the WIO region, the industrial marine fisheries sector is perhaps more sophisticated, developed and prominent. This is because of the formalised fishing activities by the fleets of long distant fishing nations from the EU and Asia operating in the WIO region. Regional governance structures have been developed by a number of international institutions including the World Bank which implements the SWIOFP and the FAO which administers RFMOs and commissions such as the SWIOFC. While off-shore fisheries such as those for large pelagic species would probably be beyond the scope of the current programme, which is more focused on coastal areas, several of the fisheries covered by the regional fisheries programmes and the SWIOFC take place in coastal waters are therefore relevant.

2.0 National Governance Frameworks

The system of government varies in the different national jurisdictions. Governments of the three mainland project states of Kenya, Mozambique and Tanzania tend to be centralized, although Kenya is edging towards a devolved system with the establishment of county governments under the new Constitution of 2010. The key legal and policy issues for all three countries 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.

Of relevance to the current MFF-WIO initiative is that all three countries have made efforts to address Climate Change related issues at a national level. Recent assessments of climate change adaptation activities at a national level highlight differences in levels of preparedness to address this overarching environmental challenge. Priority sectors have most often been agriculture, water resources, and health, as well as in the case of the mainland countries, energy. Although most country strategies and plans also include fisheries, coastal zones, or coastal and marine ecosystems, there has been relatively few adaptation initiatives focused on these sectors. The table below shows these differences between the three countries of the region.

Priority adaptation sectors in key national climate change strategies and plans

Country	Sectors
Kenya	National Climate Change Response Strategy (NCCRS): Agriculture, horticulture, and food security; Livestock/pastoralism; Water; Health; Forestry; Energy; Rangelands, Wildlife, and Tourism; Social infrastructure and human settlements; Physical infrastructure; Fisheries, coastal, and marine ecosystems
Mozambique	National adaptation action plan to climate change (NAPA): Early warning system; Agriculture; Coastal zones; Water resources
Tanzania	NAPA: Agriculture, Water, Energy, Forestry, Health, Wildlife, Tourism, Industry, Coastal and marine resources, Human settlements, Wetlands

The disparity and diversity in the region in terms of capacity to unilaterally address environmental challenges provides opportunities for further regional collaboration, and an initiative such as the MFF-WIO can play an important unifying role here. Given that there are insufficient resources to address all requirements at a national level, a strategic approach is needed to make the best use of available resources. In addition, considerable leverage is possible for accessing additional resources through a collaborative approach.

Two key recent references provide an overview of climate change preparedness in the region and in the three countries of interest to the current MFF-WIO initiative.^{36 37}

2.1 Kenya

2.1.1 Legal and Policy Frameworks_

The new Kenya Constitution (2010) makes specific provisions for environmental governance of natural resources. It seeks to reinforce the importance of natural resources and the environment generally through its preamble and some sections. Under its chapter 5 entitled “Environment and

³⁶ Africa Biodiversity Collaborative Group (ABCG) (2012): Climate Change in the Western Indian Ocean: A situation assessment and policy considerations . 97 pp.

³⁷WIOMSA (2011): Climate Change Impacts in Coastal and Marine Areas of the Western Indian Ocean Region: An Assessment of Problems, Solutions, and Strategic Options for Promoting Climate Resilient Development in the WIO Region. 161 pp.

Natural Resources”, there are provisions on principles and obligations on the environment; protection and conservation of the environment; enforcement of environmental rights; utilization and development of natural resources; agreements relating to natural resources; and environmental legislation. The constitution also provides for the establishment of an environment and land court to address legal disputes related to environmental and land resources and processes.

Kenya’s substantive environmental law is contained in various sectoral laws. The Environmental Management and Coordination Act (EMCA) of 1999 is the framework environmental law and is an attempt to provide a broad framework legislation dealing with both institutional and legal issues relating generally to a myriad of environmental issues. The law has recently been under review in order to align it to the relevant provisions of the New Constitution 2010.

The EMCA 1999 mandates the Minister in charge of Environment, in consultation with relevant lead agencies, by notice in the Gazette to declare any area of sea to be a protected coastal zone. Further, the Act, under section 55, specifically also mandates NEMA in consultation with relevant lead agencies, to prepare a survey of the coastal zone, and to prepare an integrated national coastal zone management plan, based on the report of the survey. The purpose of such an integrated coastal zone management plan would be encouraging affective methods of managing and protecting the marine and coastal environment and associated fresh water catchments, especially at the estuaries.

The Act imposes stringent penalties in relation to offences related to pollution and dumping of hazardous substance into the coastal zone. The penalty imposed under the EMCA 1999 for offences related to pollution or dumping of hazardous waste under the Act is the payment of a fine of not less than one million shillings or imprisonment for a period not exceeding 2 years or both fine and imprisonment. There have however, been few prosecutions related to this Act and pollution from corporate entities such as municipal authorities, hotels, and other sources remains a challenge in the coastal zone. EMCA’s effectiveness is impaired by, among others, poor judicial understanding of its requirements, weak enforcement, corruption and bureaucracy.³⁸ Moreover, with respect to mangroves management, the Kenya Forest Service (KFS), Kenya Wildlife Service (KWS), and National Museums of Kenya (NMK) all have mandates, each under their respective Acts, regulations and jurisdictions, leading to confusion in enforcement and management.³⁹ Matters are not helped by the fact that mangroves are rather poorly understood and are managed by departments or agencies that focus more on terrestrial forests.⁴⁰

The Minister for Environment and Natural Resources has also not issued the appropriate Regulations envisaged under section 55(6) of EMCA 1999 for the prevention, reduction and control of pollution or other forms of environmental damage of the coastal zone.

³⁸ Melita S., Kennedy O. and George W., ‘Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya’, (CORDIO Status Report 2011)

³⁹ Ibid.

⁴⁰ Ibid.

The provisions of Section 55(7) of EMCA 1999 are even more pertinent and relate directly to Kenya's obligations under the Global Programme of Action (GPA). Section 55 (7) of the EMCA 1999 mandates the Minister in consultation with relevant lead agencies to issue regulations for the control and prevention of marine environment from land-based sources, including rivers, estuaries, pipeline and outfall structures from vessels, aircrafts and other engines used in the coastal zones, among others.

The Environmental Impact Assessment and Audit Regulation 2003 were promulgated pursuant to Section 147 of the EMCA 1999. The EIA and Audit Regulations have been in force since 2003, but ensuring consistent and effective implementation remains a challenge, often negatively impacting on the coastal zone. The provisions of section 58 of EMCA 1999 and the EIA and Audit Regulations 2003 promulgated have not been seriously applied and more often than not developers are required to submit EIA reports for approval rather than environmental management plans (EMPs) detailing all project activities, impacts and mitigation measures. However, EIA Reports usually must have EMPs. This also includes projects which are bound to have deleterious impacts upon the coastal zone. The capacity of the National Environmental Management Authority (NEMA) to conduct environmental audits in order to evaluate the activities, processes of hitherto approved projects to determine how far these activities and programmes conform to approved environmental management plans and sound environmental practices, needs to be enhanced.

Moreover, greater clarity is needed on which facilities and operations require EIAs and environmental audits. Small, low impact operations are often hampered by bureaucracy while EIAs for large developments often lack transparency.⁴¹

Important sectoral legislation includes the Physical Planning Act 1996, for all land use and planning, especially in the urban centres. Unfortunately the provisions are not always adhered to with respect to activities that cause physical alteration and destruction of habitats (PADH) and pollution, such as hotel and other tourist establishments, and the development of urban infrastructures. Strict implementation of the provisions of the Physical Planning Act 1996 could contribute, both to the protection of the physical environment of the coast and to sustainable tourism and other socio economic activities.

Other legislation includes the Local Government Act chapter 265,⁴² for the control and regulation of local authorities, including environmental aspects such as waste water and sewerage treatment and disposal; the Public Health Act for public health related subjects; the Wildlife (Conservation and Management) Act Chapter 376 for the protection of vulnerable ecosystems along the coastal zone, especially in the establishment of MPAs. MPAs are established under the law and managed by Kenya Wildlife Services. The enactment of specific legislation for the protection of marine and coastal living resources would, perhaps, be desirable as the Wildlife Conservation and Management Act Cap 376 of the laws of Kenya is a rather broad legislation, whose main focus appears to be more on conservation of terrestrial wildlife resources than to marine and coastal living resources. Also a specific Marine Living Resources Act would, as is desirable, also outlaw

⁴¹ **ibid**

⁴² This Act is set to be repealed once the County Governments Act 2012 comes into full effect as part of the far reaching devolution under the New Constitution 2010.

the carrying out of activities that adversely impact on the ecosystem of the marine protected areas and more specifically those related to dumping of waste or oil pollution. The enactment of a Sea Shore Act and a Protection against Dumping Act would also concisely define marine offences and impose specific penalties for offences relating specifically to dumping and pollution of the coastal zone.

The Forest Act Cap 385 of the laws of Kenya (repealed) did not accord mangrove forests special protection. Mangrove forests are an important characteristic of the Kenyan coastal zone. It is desirable that the mangrove swamps where these forests are to be found be accorded special protection from activities such as dumping of waste, PADH and pollution. The said statute did not outlaw dumping of waste in mangrove swamps and this invariably posed a danger to some of the fragile ecosystems along the Kenyan coastal zone. However, the Forest Act 2005 has now been enacted, and substantially improves the management systems of forests in Kenya, including by the establishment of the Kenya Forest Service (KFS). The Forest Act 2005 mandates that natural forests (which include mangrove forests) be used sustainably, though limited extractive use by the community is allowed. The new law prohibits dumping of wastes in the mangroves. Previous studies have revealed severe loss of the mangrove vegetation, reduced fish populations and edible crustaceans. This is attributable to the use of mangrove areas as dumpsites for sewage sludge, urban and infrastructure developments, agriculture and aquaculture, oil spills from the harbors and ports, and harvesting of mangroves.⁴³

The Kenya Maritime Authority Act No 5 of 2006 aims to administer and enforce provisions of the Merchant Shipping Act No 4 of 2009 and any other legislation relating to the maritime sector for the time being in force in Kenya. Its enactment into law and the establishment of the Kenya Maritime Authority is timely and highly commendable given the important mandates that have been accorded to the Authority under the law. Among these include advising the government on legislative and other measures necessary for the implementation of relevant international Conventions, Protocols and Agreements to which Kenya is a party. The Kenya Maritime Authority Act mandates the Authority to ensure, in collaboration with such other public agencies and institutions, the preservation of the marine environment from pollution, protection of the marine environment and responses to marine environment incidents.

Elsewhere, the Coast Development Authority Act was enacted in 1990 with the sole aim of providing for the establishment of an Authority to plan and coordinate the implementation of development projects in the whole of the Coast province and in the EEZ. It covers most of the upstream areas connected with land based sources and activities (LBSA) problems in Kenya.

The Water Act 2002 places special emphasis on the protection of catchment areas and gives the Minister powers to gazette such catchments areas as protected areas. Its relevance to coastal and marine environment is the outlawing of actions that deplete and degrade the quality of water, particularly in rivers, which ultimately ends up in the sea. Estuaries have been identified as some of the primary sources of pollution of the coastal zone. Untreated sewerage and waste water still

⁴³ UNEP/Nairobi Convention Secretariat and WIOMSA (2009): Regional Review of Policy, Legal and Institutional Frameworks for Addressing Land-based Sources and Activities in the Western Indian Ocean Region. UNEP, Nairobi, Kenya.

continues to be one of the principal sources of pollution of the Kenyan coastal zone. However, NEMA has recently prepared and gazetted waste water regulations.

The Agriculture Act Cap 318 was enacted in 1963 but appears to have gone through progressive piece meal amendments over the years. There are current efforts to comprehensively review this law and the entire agricultural sector laws under the Agricultural Sector Coordinating Unit. The Act is relevant as persistent organic pollutants (POPs) and agricultural runoffs have been identified as key sources of land based pollution provided for under the Agriculture Act. The Act deals mainly with soil conservation and agricultural land use in general. The issue of degradation of the coastal zone by nutrients emanating from agricultural inputs like fertilizers has not been included in the Act, a matter which obviously constitutes a gap in the law. The power by the Minister to promulgate land preservation orders is expressly contained in the Act but this power must be enhanced to include the power to promulgate preservation orders and directives specifically outlawing use of POPs for the sake of the preservation of the Kenyan coastal zone.

The Fertilizer and Animal Food Stuff Act Cap 345 of the laws of Kenya was enacted in 1967 and last revised in 1977. This statute must now be amended to accommodate relevant matters concerning to pollution by land based sources. This includes matters of regulation of chemicals, poisons, fertilizers, agricultural pesticides, and resultant runoffs that ultimately degrades the Kenyan coastal zone. Persistent organic pollutants have also been identified as emanating also from irrigation schemes, aquaculture and mariculture, all of which are practiced along the Kenyan coast. Similarly the Public Health Act, Cap 242, the Pharmacy and Poisons Act Cap 244 and the Dangerous Drugs Act Cap 245 must be amended to provide for the reduction and elimination of POPs containing dioxins, furans, hexachlorobenzene, polycyclic aromatic hydrocarbons.

The Mining Act was also enacted in 1940 and was last substantively revised in 1987. As far as matters relating to Kenya's obligations under the GPA, the provisions in the Act outlawing discharge of poisonous substances into waterways are relevant. Mining ultimately results in physical alteration and destruction of habitats. The Mining Act has recently undergone significant amendments, which recognize the importance and impacts of mining, particularly in the seabed and the exclusive economic zone. There is a pending Mining Bill which if enacted will replace and repeal the current Mining Act. The Act requires the licensing of any mining operations and the provisions of EMCA 1999 and the EIA and Audit Regulations 2003 are relevant in regulating mining activities along the Kenyan coast. Currently the mining of salt and limestone ought to be regulated more seriously as they can cause permanent damage to the coastal physical environment.

The Lakes and Rivers Act Cap 409 ought also to be amended so as to include the tenets of integrated coastal zone and river basin management. The Lakes and Rivers Act was last revised in 1983 and must be amended so as to be in line with the provisions of S.42 of EMCA 1999 which expressly outlaw the excavation, damming, pollution, interference of rivers, lakes, and dams, unless pursuant to the authority of the Director General of NEMA after an EIA study. The

Lakes and Rivers Act, Cap 409 is rather shallow and does not contain any provision specifically prohibiting pollution of rivers and lakes from land based sources or activities.⁴⁴

Other relevant laws include several land laws which regulate the use of land resources, including tenure, user rights and alienation. Kenya has recently enacted new land laws in accordance with the New Constitution 2010. Even then, despite the numerous Acts and regulations that existed for controlling land developments, unsustainable developments continue along the Kenya coast, often with impunity. It is not a case of inadequate legislation, but of corruption and lack of enforcement.⁴⁵

It is clear from the above illustrations that there are many pieces of legislation involving many ministries and Authorities that are relevant to the marine environment. This myriad of legislation has led to a lack of synergy, a lack of harmony, duplication, weaknesses and gaps, and a lack of awareness across different sectors and Ministries. This makes the understanding of legislation in the marine and coastal setting difficult and complicated. This is further compounded at the local level by few Acts and Regulations being translated into Kiswahili and distributed to coastal communities.⁴⁶

Key Policy instruments that affect coastal systems include the following:-

Draft National Environment Policy 2012

The aim of the revised draft National Environment Policy (2012) is to provide a framework for sound environmental and natural resource governance by mainstreaming environmental considerations into sectoral policies and strengthening regional and international cooperation in environmental management. Key objectives of the policy include:

- (a) Providing a framework for integration of environmental considerations into the various sectoral policies, development plans and decision making processes;
- (b) Ensuring sustainable management of terrestrial and aquatic resources for national economic growth and improved people's livelihood and well-being;
- (c) Promote and enhance collaboration, synergy, partnerships and participation in the protection and conservation of the environment by all stakeholders;

The key issues addressed by the policy include the harmonization of sectoral policy instruments with the framework environmental law (EMCA 1999) in order to enhance sustainable environmental management.

⁴⁴ Mbulu, K., 2007: National Report on Legal, Regulatory and Institutional Framework for Land-based Sources and Activities Management in Seychelles. Unpublished Report submitted to UNEP/WIO-LaB Project/Nairobi Convention Secretariat, Nairobi, Kenya, 47p.

⁴⁵ Melita S., Kennedy O. and George W., 'Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya', (CORDIO Status Report 2011)

⁴⁶ Ibid.

The National Oceans and Fisheries Policy, 2008

The National Ocean and Fisheries Policy 2008, derived from provisions of the 1982 Convention on the Law of the Sea (UNCLOS), Section 5(5) of the Maritime Zones Act 1989, and the Presidential Proclamation of June 2005, gives Kenya sovereign rights with respect to exploration, exploitation, conservation and management of ocean resources. The policy focuses on resource management in territorial waters and the EEZ.

The National Oceans and Fisheries Policy 2008 addresses most aspects of fisheries management and development, including environmental conservation, regional cooperation, research, surveillance and monitoring, social responsibility and governance. Moreover, preparation of specific fishery management plans is given high priority, but certain regulations are misplaced or require fine tuning.⁴⁷

Measures should be put in place to ensure implementation of the Ocean policy and ICZM Action plan create synergy and avoid duplication of effort.

Draft Wetland Policy, 2009

The draft Wetland Policy (2009) recognizes the importance of the variety of wetlands found in the coastal, marine and inland areas, in the provision of goods and services which support social economic activities. The Policy seeks to foster an integrated approach that would promote conservation and sustainable use of wetlands.

The wetlands policy will complement the other sectoral policies on environment and development. Further, adoption of the policy will fulfill Kenya's obligations under the Ramsar Convention and other relevant Multilateral Environmental Agreements and protocols. The objectives of the draft Wetland policy address issues that are very pertinent with the development, management and sustainable exploitation of the coastal zone and its resources.

Currently, aspects of wetland conservation and management are handled by different agencies, including the KWS, KFS, NEMA, Fisheries Department, Water sector institutions, and regional development authorities (RDAs), as well as communities, without a clear legal framework⁴⁸

National Land Policy, 2009

The National Land Policy provides a framework to ensure the maintenance of a system of land administration and management that will provide all citizens with the opportunity to access and use land. It also provides for economical, equitable and environmentally sustainable use of land resources taking into consideration issues of efficiency, effectiveness and economical operation of the land market. To achieve this, the National Land Policy requires that all policies, regulations and laws dealing with land based resources be harmonized with the framework established by the Environmental Management and Coordination Act, 1999. Recognizing the coastal zone as fragile, the Policy has set guidelines for formulating land use and management

⁴⁷ Ibid.

⁴⁸ Ibid

practices. Since the sector has major implications on the coastal and marine environment, urgent reforms related to land tenure and access would contribute immensely in attainment of ICZM Action Plan objectives.

Regional Development Authorities Policy, 2007

The Regional Development Authorities (RDA) Policy (2007) was formulated to provide the framework to guide the implementation of the mandate of the Ministry of Regional Development Authorities. The goal of the policy is to achieve equitable and balanced national socio-economic development through the promotion of sustainable utilization of natural resources for economic development in the regions. The policy has redefined functions of the RDAs to include:-

- Formulation of integrated regional development plans in close consultation with other stakeholders;
- Management of natural resources, specifically addressing gaps in regional resource mapping, promotion of resource based investments and formulation of a framework through which communities would benefit from such investments.

The RDA Policy and legal provisions have a direct bearing on streamlining and strengthening the roles and functions of the Coast Development Authority (CDA) and Tana and Athi Rivers Development Authority (TARDA) in coastal zone development and management.

However, equitable allocation of government funds to socio-economic development under the Ministry of Regional Development Authorities is questionable, particularly with reference to marine fisheries development. A needs assessment would be very useful for determining immediate needs for development of the marine fisheries sector.⁴⁹

Poverty Reduction Policies and Strategies

Further, the Government recognizes the role that environment plays in national development (economic growth) processes, and its importance in reducing widespread poverty in the country. The Government commitment is clearly articulated in the *National Poverty Reduction Plan* (1999-2015) and the *Poverty Reduction Strategy Paper* (PRSP) launched in 2001. Kenya's 2001 PRSP aimed at addressing poverty issues has also environment dimension as one the main pathways for dealing with the problem. In line with the Millennium Development Goals (MDGs), the poverty reduction paper provides basis for sustainable reduction in poverty.

The government also produced the *Economic Recovery Strategy for Wealth and Employment Creation* (2003-2007), which was subsequently followed by **Vision 2030**, Kenya's most ambitious yet policy framework for transforming the country into a middle-level economy by 2030. The principal elements addressed in the investment programme of the wealth creation strategies are: economic growth, poverty reduction and governance issues. The programme sees poverty as being caused by environmental degradation, and thus it argues that environmental protection is critical in achieving economic growth. The establishment of the MDGs and Kenya's

⁴⁹ **ibid.**

poverty reduction strategies provide great opportunities for national and development organizations for systematically addressing poverty.⁵⁰

Draft Forest Policy 2012

The objectives of the Draft Forest Policy include to contribute to the reduction of poverty, employment creation and improvement of livelihoods through sustainable use, conservation and management of forests and trees; contribute to sustainable land use through soil, water, and biodiversity conservation; promote the participation of the private sector, communities and other stakeholders in forest management to conserve water catchment areas, create employment, reduce poverty and ensure the sustainability of the forest sector; promote farm forestry, produce timber, wood fuel and other forest products; promote dry land forestry, to produce wood fuel and to supply wood and non wood forest products. Others are: promotion of forest extension to enable farmers and other forest stakeholders to benefit from forest management approaches and technologies; and promotion of forest research, training and education to ensure a vibrant forest sector.

Integrated Coastal Zone Management Action Plan (ICZM) Policies

From review of the policies highlighted above, there are still no clear government policy guidelines for the management of mangroves in Kenya as such and, although mangrove cutters have to be licensed, their numbers are not controlled. It is only through the development, acceptance and implementation of proper non-exploitative practices that mangrove resources, goods and services can be perpetuated for the overall benefit to society.⁵¹

While numerous policy frameworks relevant for the conservation of the coastal zone exist, what has become apparent in their enforcement is that a large number of statutes have led in certain cases to duplications, overlaps, inconsistencies, and a system of very weak penalties. Although EMCA prevails in cases where sectoral policies conflict, effective implementation of the sectoral policies requires harmonization of overlapping ones as well as provision of adequate financial and technical backstopping.

Furthermore, these policies are rather weak and uncoordinated. The ICZM Policy is hoped to provide a better coordination and integration framework thus helping to overcome the challenges presented by the sectoral approach to management of coastal resources.

Integrated Coastal Zone Management (ICZM) brings all stakeholders involved in the development, management and use of the coastal zone within a framework that facilitates coordination and integration of activities and decision making process with a view to promoting sustainable development.

⁵⁰ Adano W. Roba & Benjamin N. Mwasi on Integrating Environmental Dimensions of Poverty Reduction into Local Development Planning and Governance in Kenya, Report Prepared for the Community Development Trust Fund (CDTF), (June 2006)

⁵¹ P.A.W Abuodha & J.G. Kairo on Human induced stresses on mangrove swamps along the Kenyan coast, p. 255-265 (R 2001)

The ICZM Action Plan has been developed pursuant to sec 55 of the Environmental Management and Coordination Act (EMCA) 1999 which provides for development of integrated coastal zone management plan for the country. It is the first ICZM Action Plan for Kenya. The Action Plan has identified key priority themes and activities that will be implemented in the period 2010- 2014 to address the numerous issues and resource management challenges facing the coastal and marine environment with a view to realizing sustainable development of Kenya's coastal zone.

In general, it provides a broad framework for sound management of the coastal zone through inter-sectoral coordination and integration of environmental considerations into socioeconomic planning and implementation at all levels. This is brought about by the desire to balance environmental management interests with economic development interests. In implementing the ICZM Action Plan, the country will not only manage its coastal resources effectively, but also contribute to regional and international obligations in the protection of important fragile ecosystems and maintaining their integrity for sustainable development in line with Vision 2030.

The thematic areas of the action plan include Integrated Planning and Coordination; Promotion of Sustainable Economic Development; Conservation of Coastal and Marine Environment; Environmental Risks and Management of Shoreline change; Capacity Building, Information and Public Participation; and, Institutional and Legal Framework needed to operationalize the Plan.

Community-based Legislation

Marine waters are a public property vested in the government, so ownership or leasing is not permitted.⁵² Further, MPAs have traditionally been founded and managed by the Government with minimal stakeholder engagement. With the advent of the Fisheries (Beach Management Unit) Regulations of 2006, however, co-management is gaining increasing prominence. Beach Management Units (BMUs) allow resources users such as fisherman to manage their landing sites and in so doing conserve resources. There are presently 33 on the Kenyan coast.⁵³

The objective of BMUs is to conserve the biodiversity and livelihood of coastal communities through improved conservation and sustainable management of coastal and marine resources. There are community based organisations in Shimoni, Majoreni and Vanga established and strengthened through sustained individual and institutional capacity building. A network of six marine community conserved areas (CCAs) in Shimoni, Majoreni and Vanga have been established with management plans in place and operational. Marine and land-based alternative livelihoods have been identified and promoted through the BMUs and existing livelihoods developed sustainably. There has also been increased awareness of linkages between sustainably managed coastal marine environment and community well-being enhanced amongst fishers/fishmongers, children, youth and the wider community in Shimoni, Majoreni and Vanga and surrounding areas.⁵⁴

⁵² Murage, D., 2010. Discussion on MCA projects in East Africa. (Personal Communication, 27 July)

⁵³ Cinner, J.E., Wamukota, A., Randriamahazo, H. & Rabearisoa, A. (2009) Toward institutions for community-based management of inshore marine resources in the Western Indian Ocean. *Marine Policy*, **33**, 489-496

⁵⁴ Conservation and sustainable management of Kenya's marine and coastal resources, <<http://www.eawildlife.org/projects/wetlands/marine?format=pdf>>

The development of Community Conservation Area (CCAs) Management Plans is considered a core component for the success of the Darwin Initiative Project being implemented by the East Africa Wildlife Society (EAWLS) Marine Programme since 2009. The project's objective is to incorporate improvement of the livelihoods of local people in the conservation of the marine resources. It is expected that the management and use of the CCAs will be outlined in the management plans for the purpose of community empowerment and education on sustainable management of their resources, with clearly defined methods. This should reduce pressure on the marine ecosystem. The recent enactment of government policy measures to provide for more community driven initiatives for sustainable management of coastal and marine resources and build community capacity for sustainable coastal and marine resource conservation is indeed a morale booster for this initiative.⁵⁵

Kenya is at present not well positioned to implement Marine Conservation Agreements (MCAs). This is compounded by a number of sizeable legislative gaps, together with lax enforcement of existing legislation. There is, however, some cause for optimism. Article 42 of the constitution declares that every person has the right to a clean and healthy environment and the right to have the environment protected for the benefit of present and future generations through legislative and other measures. It is at present unclear what this means for management of the Kenyan marine environment, but it is conceivable that it could result in legislation more favorable to the adoption of MCAs. In such a scenario, the best-placed implementation partner would be the WWF, which has been running a community engagement project at the Kiunga Marine National Reserve since the mid-1990s.⁵⁶ And should the new constitutional framework grant additional control to Beach Management Units as part of devolution, the Wildlife Conservation Society (WCS) could be another valuable partner.

The Forests Act 2005 stipulates among others, the role of communities in the management of forests. Kenya's 10 forest conservancies now have community representation to the Forest Conservation Committees (FCC). The process of getting representatives from Community Forest Associations (CFAs) was completed in 2009 when the three remaining conservancies – North Eastern, Ewaso North and Nyanza finalized their elections.⁵⁷ However, there is no national mangroves harvesting plan and the concept of CFAs is still new at the coast. Emphasis is still on forests and they are viewed as sources of revenue.⁵⁸

2.1.2 National Institutions

Institutions with mandates on coastal environment management have evolved with time. The enactment of EMCA in 1999 established NEMA to exercise general supervision and co-ordination over all matters relating to the environment. The Act also establishes National Environment Council (NEC), which is charged with policy formulation, setting of national goals,

⁵⁵ Agatha Ogada, 'Mapping Community Conserved Areas in the Kenya coast', East African Wildlife Society < <http://eawildlife.org/the-news/eawlsnews/180-mapping-community-conserved-areas-in-the-kenya-coast>>

⁵⁶ Obura 2001; Hatton 2001; Wells 2004

⁵⁷ <http://kenyaforests.wildlifedirect.org/> accessed 18.03.2013

⁵⁸ Melita S., Kennedy O. and George W., 'Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya', (CORDIO Status Report 2011)

objectives and priorities for the protection of the environment and the promotion of co-operation among stakeholders. EMCA has also established Provincial and District Environment Committees as forums for stakeholder engagement in environmental protection and conservation.⁵⁹ However, as stated earlier, the EMCA 1999 is currently under review to align it with the new Constitution 2010, and particularly its devolved government structure.

Other institutions are sector or resource specific, and include Kenya Forest Service (KFS) for management of forests, Kenya Forestry Research Institute (KEFRI) for forestry research; Fisheries Department and Kenya Marine and Fisheries Research Institute (KMFRI) for fisheries management and research respectively; Kenya Maritime Authority (KMA) for regulation of the maritime goods and services, and Kenya Ports Authority (KPA) for ports and harbors management; Kenya Wildlife Services (KWS) for wildlife management including in marine protected areas (MPAs). Others are the Coast Development Authority (CDA) for coastal regional development, Water Resources Management Authority (WRMA) for water resources management, National Museums of Kenya (NMK) for preservation of national heritage, public universities for research, and various local authorities responsible for Mombasa City and other municipalities along the coastal region of the country.

Overall, Kenya has numerous regulations supporting various environmental policies which provide a strong legal base for management of marine resources. However, legislation currently involves at least 14 Government ministries containing a further nine authorities/agencies responsible for about 48 pieces of legislation relevant to the marine environment. This makes the understanding of legislation in the marine and coastal setting difficult and complicated.⁶⁰ Fortunately there have been recent efforts towards addressing the problem of fragmented and multiple laws covering the environment across different sectors.⁶¹

2.1.3 National Civil Society Organizations

There are various civil society organizations (CSOs) whose mandates are largely environmental and to a lesser extent socio-economic development. They undertake environmental conservation, education and empowerment activities. The CSOs include Pact Kenya and Kenya Sea Turtle Conservation Committee (KESCOM), Kenya Marine Forum, Nature Kenya, Wild Life Clubs of Kenya, Baobab Trust, Watamu Turtle Watch and Eco-Ethics International.

2.1.4 Current or planned projects and programmes relating to the marine and coastal environment

⁵⁹ Toward integrated Management of Kenya's Coastal and Marine Resources: Integrated Coastal Zone Management (ICZM) Action Plan For Kenya, (2010-2014) Ministry of Environment and Mineral Resources; NEMA

⁶⁰ Melita S., Kennedy O. and George W., 'Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya', (CORDIO Status Report 2011)

⁶¹ Ibid

Some national and regional projects and programmes related to the coastal and marine environment are briefly described below.

The Kenya Coastal and Marine Environment Clearinghouse Mechanism (Kenya CHM) was implemented from February 2008 following the signing of a Memorandum of Understanding (MoU) between UNEP and the Kenya Marine and Fisheries Research Institute (KMFRI) in February 2008. Initiated by the Nairobi Convention, the Clearinghouse Mechanism (CHM) project was intended to develop a comprehensive information base and access services to quickly provide information to decision makers.

The Marine Ecology & Environment Program (MEEP) is one of the six research programs at KMFRI whose overall aim is to generate data and information of coastal and marine ecosystems that will enable sound management and sustainable utilization of resources. The MEEP is therefore a service program which supports and works hand in hand with other Programs within KMFRI.

The Kenya Coastal Development Project (KCDP) is a World Bank funded project currently under implementation and is housed and run by the KMFRI. It is a 6 year project beginning from 2012 and its objective is to improve livelihoods of coastal communities with the main focus on fisheries, but also on other sectors and resources such as forestry, biodiversity, agriculture, and eco-tourism.

Among the WIO regional projects that are recent or on going include the Global Environment Facility (GEF) the South West Indian Ocean Fisheries Project (SWIOFP), implemented by the World Bank; the Agulhas and Somalia Current Large Marine Ecosystem Project (ASCLME), implemented by the United Nations Development Programme (UNDP); and the “Project Addressing land based activities in the Western Indian Ocean (WIO LaB),” which ended in 2010 and was executed by the Nairobi Convention Secretariat.

Under the framework of the IOC-UNESCO, an IOC Regional Committee for the Western Indian Ocean (IOCWIO) there has been focus on encouraging and facilitating self-driven capacity development initiatives in the region including Kenya with aligned institutions initiating six projects in four countries on coastal and marine management. The projects addressed priorities identified by institutions and government leaders involved in the programme, both in terms of capacity development and management issues, including: Malindi- sea level rise and flooding (Kenya Meteorological Department - KMD); and Shimoni- fisheries habitats (KMFRI).

Despite the presence of many legislative and institutional facilities, environmental threats to coastal areas are largely a direct result of poor environmental governance caused by:

- i) The inability of government institutions to manage ecosystems for their health rather than maximum yield or production;
- ii) The inability to manage natural resources across departmental and political boundaries;
- iii) A sectoral approach to natural resource management;
- iv) A lack of access to redress and legal remedy and a lack of land tenure.⁶²

⁶² Melita S., Kennedy O. and George W., ‘Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya’, (CORDIO Status Report 2011)

Nevertheless, several opportunities within recent legislation have attempted to address the problem of fragmented and multiple laws governing the environment across different sectors. The National Biodiversity Strategy and Action Plan (2000) is such an example. However, this Plan is rarely referred to in marine and coastal situations and it is likely that few coastal people are aware of it. A key development is the commitment in the Constitution (2010) for due diligence when it comes to the environment and in Recognizing citizens' rights to environmental resources and a healthy environment with specific avenues enshrined for ensuring these commitments are met. Co-management with strong community participation has also become the norm in many of the newer policies and regulations, though few communities are aware of their rights.⁶³

In terms of climate change, several projects are specifically addressing this issue.⁶⁴

⁶³ Melita S., Kennedy O. and George W., 'Opportunities and Challenges of Current Legislation for Effective Conservation in the Tana Delta: Pate Island Coast of Kenya', (CORDIO Status Report 2011)

⁶⁴ Africa Biodiversity Collaborative Group (ABCG) (2012): Climate Change in the Western Indian Ocean: A situation assessment and policy considerations . 97 pp.

Project	Type	Focus	Donors	Implementing agency
Adaptation to climate change for small-scale agriculture <i>2009-2014</i>	Resilience	Impact evaluation, searching for alternatives, dissemination of good practices, policy formulation	World Bank	IFPRI, ILRI, KARI, University of Georgia
Adaptation to climate change in arid areas <i>2010-2013</i>	Resilience	Policy formulation and capacity-building to manage measures relating to climate change adaptation	Special Climate Fund, World Bank	World Bank, UNDP
Support to projects on the reduction of vulnerability in rural areas <i>2010-2014</i>	Coping and Resilience	Agroforestry, introduction of drought-tolerant varieties, improvement of forest watersheds, support to the conservation of mangroves and coral reefs	USAID	

The vast majority of ongoing adaptation activities set out to strengthen capacity and to lead to policy formulation, which both constitute the first steps towards resilience. They simultaneously target arid and semi-arid areas, wetlands and coastal zones.

2.2 Tanzania

2.2.1 Legal and Policy Frameworks

The position in 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. 'Environment' is a non union matter resulting in separate laws and administrative authorities for Zanzibar (made up of the islands of Unguja and Pemba) and the mainland. The same applies for marine fisheries where the island and mainland have separate laws and authorities but where an additional law, the Deep Sea Fishing Act is common to both and is a union matter. However, decentralization is also occurring in Tanzania which is in the process of granting greater powers to district councils.

The constitution of the United Republic of Tanzania does not have explicit provisions on environmental protection and management. However, the legal system has a considerable legislative and institutional coverage of environmental and socio-economic issues, including the

coastal and marine environment. Despite the legislative and institutional coverage, environmental law in Tanzania is scattered, sector based, overlapping and at times conflicting. Environmental law in Tanzania is not a homogeneous system of law as it comprises of diverse rules of administrative law, constitutional law, law of torts and criminal law. This affects the efficacy of law to protect the coastal and marine environment.⁶⁵

The framework environmental law of mainland Tanzania is the Environmental Management Act 2004 (EMA). Section 232 of EMA provides that any other law or provision of law that is inconsistent with the EMA on matters concerning the environment shall cease to be applicable. Section 31 (2) of the EMA imposes the duty on the sector.

The EMA 2004 and Regulations made thereunder provide for the legal and institutional framework for sustainable management of the environment; to outline principles of management, impact and risk assessments, prevention and control of pollution, waste management, environmental quality standards, public participation and compliance and enforcement. It also provides the basis for implementation of international instruments on environment. It repeals the National Environment Management Act (1983), but continues the existence of the National Environment Management Council (NEMC). It provides for establishment of the National Environmental Trust Fund. It applies only to mainland Tanzania. It establishes general environmental principles, including the right to a clean, safe and healthy environment for every person living in Tanzania; and the right to bring an action for environmental harm or damage. Every person living in Tanzania has a duty to safeguard and protect the environment.

The Act also defines principles of environmental management and obliges all persons exercising powers under the Act or any other written law to promote or have regard to the National Environmental Policy.

In Zanzibar, the framework environmental law is the Environmental Management for Sustainable Development Act 1996. It provides among others for Zanzibar's international obligations, stakeholder participation, institutional arrangements, environmental impact assessments, assessments and dispute resolution.

Most of the other laws relating to environmental management and particularly the coastal and marine environment are fragmented and scattered across a variety of sectors.⁶⁶ However, coastal tourism – related legislation includes the Hotels Ordinance 1963 and the Tourist Agents Licensing Act, 1969. The existing law encourages the development of tourism and its infrastructure. Inevitably, many of these structures, together with increased numbers of tourist arrivals place burdens on the maritime and coastal habitats. Others include the Forest Ordinance

⁶⁵ UNEP/Nairobi Convention Secretariat and WIOMSA (2009): Regional Review of Policy, Legal and Institutional Frameworks for Addressing Land-based Sources and Activities in the Western Indian Ocean Region. UNEP, Nairobi, Kenya.

⁶⁶ Mgaya Y.D and Juma S; "Integrated Coastal Zone Management in Tanzania", in Voabil & Engdahl (Eds): The Voyage from Seychelles to Maputo; successes and failures of integrated Coastal Zone Management in Eastern Africa and Island States 1996-2001 Vol I (SEACAM 2001) Maputo, pps 123-149.

chapter 389 (1957) as amended variously in 1964, 1979 and 1991; and Tanzania Forestry Research Institute Act 1980.

Other sectoral laws are in mining and extraction. They include the Petroleum (Exploration and Production) Act 27 of 1980, the Mining Act No. 5 of 1998; the Mining (Environmental management and protection) Regulations 1999. Mining includes sand mining and extraction, which is a common activity in the coastal and marine environment in Tanzania.⁶⁷ Legislation in agriculture includes the Plant Protection Act 1997; Range Development and Management Act cap 569.

In the fisheries sector there are some legislations such as the Fisheries Act 2003; Tanzania Fisheries Research Institute Act 1980; Marine Parks and Reserves Act 1994; and the Deep Sea Fishing Authority Act, 1997. In the lands and urban development sectors there is a range of legislations including the Land Ordinance, 1923; Town and Country Planning Ordinance Cap 378 (1996); National Land- use Planning Commission Act No. 4 1999; and the Village Lands Act No. 5 of 1999. In the wildlife sector, there are the National Parks Ordinance 1959 and the Wildlife Conservation Act No. 12 (1974). Finally, in industry there is the National Industries (Licensing and Regulation) Act and the Merchant Shipping Act (1967).

Lack of uniformity in customary laws administered today in Tanzania is a major weakness of the legal system. Multiplicity of customary law renders more problematic the application of appropriate law in urban and rural areas of mixed tribal populations. The lack of uniformity makes it difficult to ascertain and use customary law to prevent, reduce and control environmental pollution and degradation, and more difficult by uncertainty of the African customary laws. Customary laws continually diminish in importance as the body of written laws expands to cover areas hitherto under customary laws and practice.⁶⁸

In 1997 Tanzania adopted the **National Environment Policy** which provides the framework for making fundamental changes that are needed to bring environmental considerations into the mainstream of decision-making in Tanzania. The overall objectives of the National Environment Policy are:

- i. To ensure sustainability, security and the equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health or safety;
- ii. To prevent and control degradation of land, water, vegetation and air which constitute main life support systems;
- iii. To conserve and enhance natural and manmade heritage, including the biological diversity of the unique ecosystems of Tanzania;
- iv. To improve the condition and productivity of degraded areas, including rural and urban settlements, in order that all Tanzanians may live in safe, healthful, productive and aesthetically pleasing surroundings;

⁶⁷ Ibid.

⁶⁸ Ibid.

- v. To raise public awareness and understanding of the essential linkages between environment and development, and to promote individual and community participation in environmental action;
- vi. To promote international cooperation on the environmental agenda, and expand participation and contribution to relevant bilateral, sub-regional regional and global organizations and programmes including treaties.

The Policy particularly stresses on the need for formulating environmental and sectoral legislation as an essential component for effective and comprehensive environmental management and improvement of life.

Other Policy and related instruments include the National Forest Policy, 1998; the Forest Action Plan 1990/91 – 2007/08; Management Plan for the Mangrove Ecosystem in Tanzania 1991; the Agricultural and Livestock Policy, 1997; National Tourism Policy 1991 (reviewed 1996) and the Integrated Tourism Master plan for Tanzania (1996-2005). Others are the National Fisheries Sector Policy, 1997, and the Draft Investment and EIA Guidelines for Marine Parks and Reserves in Tanzania and the Draft Mariculture Development Guidelines; the National Land Policy 1995, and Town/ City master Plans; District and Village Land use plans; the Wildlife Policy of Tanzania (1998); the Sustainable Industrial Development Policy, 1996; and the ICZM Policy.

In recognition of the importance of science and its potential impact on sustainable development, the Government of Tanzania has put in place a Higher Education Policy to provide the direction and guidance to stakeholders and service providers. The policy has placed emphasis on the teaching of basic sciences and the development of corresponding skills.

With regard to environmental sciences, the Policy singles out the following subjects for inclusion in the national curriculum: the study and prediction of climatic and global change as a result of human activity on the environment; environmental pollution including water and air pollution with the disposal of toxic and radioactive wastes; disaster management; energy conservation; environmental conservation and enrichment; the effects of chemicals, drugs, pharmaceutical, fertilizers, etc. on the environment; and biodiversity and genetic engineering.

ICZM specific policy, regulatory or institutional instruments and frameworks in Tanzania include the National Integrated Coastal Environment Management Strategy; National Steering Committee on Integrated Coastal Management (NSC-ICM); Integrated Coastal Management Unit (ICMU); and inter-sectoral Working Groups; on going development of a climate change adaptation strategy; and several projects implemented on ICZM.

Zanzibar has a **1992 National Environmental Policy** whose main focus is the conservation and protection of environmental resources, as well as a national ICZM plan, but no ICZM specific legislation.

The Government of Tanzania has recently started involving local communities in a meaningful way in the development of policies, legislation and regulations as well as in the management of coastal and marine resources. This reflects the acknowledgement of the limitations of the current management regimes by the government authorities responsible for management of coastal and

marine resources. In other words, it is a reflection of the fact that policies and legislation based on controlling and fining by the government authorities are only one component of resource management. The other equally important component is the involvement of communities in all aspects of resource management.

Furthermore, most policy initiatives established to address management problems/challenges of coastal and marine resources, with funding from development agencies and international organizations, have also adopted co-management practices, and ICZM principles in their interventions.

2.2.2 National Institutions

The Tanzanian legal system creates several institutions and shoulders them with a variety of responsibilities and tasks of environmental management through a scattered set of legislation. All these enforcement avenues create a problem of effective management arising from overlapping jurisdiction.⁶⁹ There are national institutions for the mainland and for Zanzibar and Pemba.

The Office of the Vice President is responsible for the Environment docket. This Office, using the Division of Environment (DoE), is responsible for the development of policy options and coordination of the broad-based environmental programmes and projects. It is also responsible for facilitating meaningful involvement of civil society in environmental activities. In particular, the office is charged with the duties and responsibilities of environmental research (including the development of the National State of Environment Reports published every four years), environmental policy making, environmental planning, environmental monitoring, and environmental coordination of both national and international environmental issues. The strategic functions of the Office of the Vice President form the basis for the effective inter-ministerial cooperation and coordination, which, for example, has been underscored in the National Environment Policy and the National Environmental Action Plan (NEAP).

Among the key administrative and institutional arrangements established are the National Environmental Advisory Committee which provides advice to the Minister responsible for Environment, with overall responsibility for matters related to the terrestrial environment, the Director of Environment. The latter's main functions include coordination of various environment management activities being undertaken by other agencies and to promote the integration of environment considerations into development policies, plans, programmes, strategies, and projects. There is also the National Environment Management Council (NEMC) which has specified technical tasks in the environment sector in collaboration with relevant sector ministries.

The NEMC was established by an Act of Parliament in 1983 to advise Government in the field of environment. It serves as a think-tank for the Government, undertakes environmental information generation, storage and exchange. A number of activities supporting Agenda 21 implementation have been undertaken by NEMC including pollution prevention and control; environmental education and public awareness; and natural resource conservation and management. More specifically, the NEMC has sponsored the preparation of the national marine

⁶⁹ Ibid.

contingency plan; the inventory of destructive activities to the aquatic environment; a wetlands inventory and management strategy; an inventory of natural resources and environmental related projects; environmental impact assessment (EIA) reviews; and the assessment of community participation in natural resource management.

All Government Ministries are required to have a sector environmental section which shall have responsibility for ensuring compliance by the sector ministries of the requirements of the Act. This ensures a coordinated and integrated approach to environmental management in Tanzania.

The Ministry responsible for Environment, relevant sector ministries and Local Government Authorities are not the creatures of the Environmental Management Act (EMA) but of different laws and instruments. Sector ministries work through the Sector environmental sections established in each Ministry. Local Government Authorities are created under the Local Government laws. The District and Urban Authorities have been given the power to control pollution in rivers, streams, water courses, wells or other water supply in their areas. Yet there are other regulatory institutions that have similar functions under the different laws. Fortunately the law provides for the opportunity for every institution to perform its functions in cooperation or in conjunction with others, but the law does not put it as a condition.

The Tanzania Forest Services (TFS) is a government executive agency under the Ministry of Natural Resources and Tourism. TFS is responsible for management and conservation of national forest resources, which include reserves (natural and plantations), bee reserves and forests on general lands. TFS was established in 2011 to take on all forest management and conservation responsibilities from the Forest and Beekeeping Division (FBD) with FBD retaining responsibilities of developing, reviewing and overseeing the implementation of forest policy, laws and regulations.

The TFS mandate extends to coastal forests, including mangroves and includes protection, livelihoods and sustainable use as well as restoration of degraded mangroves. Their engagement in the latter has often taken place alongside donor financed projects such as recent collaboration with WWF which involved building capacities of Village Natural Resource Committees to respond to mangroves degradation in the Rufiji District (RUMAKI Project). While the overall budget is limited and there are no ongoing programmes specific to mangrove management, the allocation for mangroves (per hectare) is comparatively higher than that of all other forest types and currently there are mangrove forest officers within every district containing mangroves. This notwithstanding, TFS is faced with a number of challenges in carrying out its responsibilities vis a vis coastal forests including; lack of adequate human and financial resources alongside increasing pressures on coastal forests, political pressures and sectoral conflicts (e.g. the issuance of title deeds within protected areas in Dar es Salaam by the Ministry of Housing and Settlements).

The responsibility of marine resources within parks and reserves is that of Tanzania Marine Parks and Reserves (MPR). MPR recognizes the significance of coastal habitats, including mangroves, as breeding grounds, important bird areas as well as natural barriers against flooding and places much importance on the engagement of local communities to manage natural

resources as a mechanism for enhancing resilience. MPR collaborates with TFS by working closely with TFS mangrove forest officers.

Currently, there are no budgetary resources directed specifically at sustainable coastal development and management but there is a dedicated budget for mangroves totaling to about 5% of the annual MPR budget. While there are currently no programmes underway specific to coastal forest management, MPR has collaborated in the past with organizations such as WWF on projects related to mangrove restoration and the development of Village Environmental Management Plans (VEMPs) such as in Mtwara which focused on the conservation of sea turtles and replanting of mangroves. Similar to TFS, MPR faces a number of challenges, such as capacity gaps within the organization; access to technical knowledge on emerging threats (for example, the impact of pesticides on mangrove habitats); and inadequate awareness amongst communities and other stakeholder on the importance of coastal habitats and ecosystems.

In Zanzibar, the framework law (Environmental Management for Sustainable Development Act 1996) establishes several institutions including the Special Committee of the Revolutionary Council on the Environment. The Committee is responsible for the administration and final decision making on environmental matters in Zanzibar. It is headed by the Chief Minister or his representative. Other key institutions include the Department of Environment as the institution responsible for the environment; and the National Environmental Fund for Sustainable Development. Similar to their counterpart on the Tanzania mainland, the DoE is responsible for policy coordination with their EIA-Natural Resource Management section responsible for natural resource management and Environmental Education, engaging with mobilizing community participation around activities such as mangrove restoration and planning. The Department is currently implementing a Climate Change and Environmental Governance Project (2012-2016) which is aimed at developing a Communications Strategy and National Action Plan on Climate Change (with a particular focus on mangrove restoration as a key adaptation strategy to sea-related disasters).

In Zanzibar, concerning ICZM, there is the Steering Committee on Integrated Coastal Management (ZSC-ICM) supported by ICZM unit and district ICZM Committees, as well as community groups.

2.2.3 National Civil Society Organizations

Some of the national CSOs include:

- a) Centre for Energy, Environment, Science & Technology (CEEST): Dar es Salaam, research on energy, environmental science and technology issues, natural resource use and management, etc.
- b) Economic & Social Research Foundation (ESRF): Dar es Salaam, research on economic, social and development issues.

- c) Research on Poverty Alleviation (REPOA): Dar es Salaam, conducts research on the informal sector, employment trends, poverty alleviation, environment and development trends.
- d) Tanzania Coastal Management Partnership (TCMP). TCMP was created in 1997 through collaboration of the U.S. Agency for International Development (USAID), Tanzania's National Environment Management Council (NEMC), and the Coastal Resources Center (CRC) at the University of Rhode Island. The Partnership comprises of a small group of professionals focusing on “sustaining coasts for current and future generations”. They are currently implementing two projects related to coastal management. The Pwani Project involves a programme of work under a number of components, including; i) the protection of critical marine ecosystems and endangered species; and ii) human dimensions of coastal ecosystems. The latter is geared specifically toward addressing climate change adaptation, economic growth and HIV/AIDS. The project has also developed a gender mainstreaming plan that includes involving women in managing intertidal areas and climate change adaptation as well as providing leadership training with a view of transforming the role of women in decision-making in natural resource management. The second project, “Building Actors and Leaders for Advancing Community Excellence in Development” (BALANCED) which is integrated cross-sectoral issues into ICM.

2.2.4 Projects and programmes relating to the marine and coastal environment

Among the relevant projects and programmes to the marine and coastal environment in Tanzania is the Kinondoni Integrated Coastal Area Management Project (KICAMP). The project formulated a comprehensive plan on land and water resources management in coastal areas. This project resulted in banning excavation of sands in critical areas as a way to prevent further beach erosion from occurring along the coastal area. Through the project, households are being made aware of the value of mangroves and involved in their protection, and, combined with heavy protection from KICAMP, this has led to increase in mangrove cover. The government has also invested recently in a number of sea walls on highly susceptible areas to sea level rise, storm surges and coastal erosion such as Kunduchi beach and Bahari beach.

Another project is the USAID funded *Sustainable Coastal Communities and Ecosystems*: This project, implemented by Rhode Island and Hawaii Hilo universities, builds adaptive capacity and resilience among vulnerable coastal communities. The program has introduced “raft culture” techniques where seaweed is grown in deeper water where it is less vulnerable to fluctuations in temperature and salinity, which will enable beneficiaries to earn a living throughout the year.

Another example of the government at work is the Community Infrastructural Upgrading Program (CIUP) which improves physical infrastructure such as storm water drainage networks and strengthens the capacity of communities to better help them, especially those living in unplanned settlements.

The Marine and Coastal Environment Management Project (MACEMP) was a six-year comprehensive programme (2005 - 2011) with the responsibility for the management of coastal and marine environment of Tanzania.

Of note is that IUCN was active in the Rufiji District from 1998 to 2011. The initial activity was the implementation of the Rufiji Environment Management Project (REMP) which aimed at promoting the long-term conservation of the forests, woodlands and wetlands, so that biodiversity is conserved, critical ecological functions are maintained, renewable natural resources are used sustainably, and the livelihoods of the area's inhabitants are protected and enhanced. The projects worked with the Rufiji District Council and other stakeholder to develop and implement an environmental management plan for lower Rufiji Floodplain and the Rufiji Delta. The management plan was directed at ensuring security of the natural resources of the area for the use of local people and for posterity. The plan is partly derived from a process of developing and implementing component village environmental management plans within four pilot villages, each with unique physiographic characteristics. These plans were drawn up by the villagers with help from the project. They encompass wise use activities, improved capacity for natural resource management, policy revision, documentation and provisions for setting up a library or resource centre. REMP was closed in 2003, however IUCN presence in Rufiji continued through a number of projects that include the Strengthening Voices for Better Choices (SVBC) 2007 - 2010; and Livelihood and Landscape Strategy (LLS) 2008 - 2011. These projects aimed at supporting capacity building for communities in natural resources management.

The Coastal Resources Centre (CRC) is an institution of the University of Rhode Island in the USA and falls under the Graduate School of Oceanography. The center was established in 1971, and started working in Tanzania in 1997, as a major partner in the Tanzania Coastal Management Partnership (TCMP), in collaboration with Tanzania's National Environment Management Council (NEMC) with financial support of USAID. CRC provides technical support to TCM to support coastal communities and their inhabitants who rely on healthy coastal and marine resources for income, food, and trade. The center is interested in strengthening capacity of governance at the local, regional, and national levels to develop workable solutions to specific threats and challenges such as food security, overfishing, mangrove deforestation, deterioration in water quality from coastal development, and climate change impacts. The center has provided support through projects that focus on various coastal management issues that include participatory, ecosystem-based fisheries co-management, climate change adaptation, livelihoods development, gender equity, and the linkages between population, health and environment. The aim of the center is to help to build the capacity of coastal communities and national governments to sustainably manage critical coastal ecosystems.

WIO regional projects involving Tanzania that are recent or on-going include the South West Indian Ocean Fisheries Project (SWIOFP), implemented by the World Bank; the Agulhas and Somalia Currents Large Marine Ecosystem Project (ASCLME), implemented by the United Nations Development Programme (UNDP); and the "Project Addressing land based activities in the Western Indian Ocean (WIO LaB)," which ended in 2010 and was executed by the Nairobi Convention Secretariat.

Under the framework of the IOC-UNESCO, an IOC Regional Committee for the Western Indian Ocean (IOCWIO), there has been focus on encouraging and facilitating self-driven capacity development initiatives in the region including Tanzania, with aligned institutions initiating six projects in four countries on coastal and marine management. The projects addressed priorities identified by institutions and government representatives involved in the programme, both in terms of capacity development and management issues, including a project on Zanzibar coastal erosion with the Institute of Marine Sciences (IMS).

There are several country-driven adaptation actions in Tanzania that address national priorities defined in the NAPA.⁷⁰

Project	Type	Focus	Donors	Implementing agency
Resilient agro-landscapes 2008-2011	Resilience	Evaluation, research and capacity building	BMZ	World Agroforestry Centre
Reduction of the vulnerability of households and of the economy of coastal communities 2011-2016	Coping and resilience	Capacity-building, dissemination of knowledge and field activities, integrated coastal zones' management and ecosystem restoration	Adaptation Fund	UNEP

Most recently (March 2013), the TCMP, in collaboration with the CRC and USAID held a workshop on a Coastal Climate Change National Action Plan (NAP) to look at ways to integrate climate change activities into coastal planning.

2.3 Mozambique

2.3.1 Legal and Policy Framework

The Constitution of Mozambique addresses matters relating to environment and quality of life in its articles 90 and 117. Article 90, which is part of the Chapter V (economic, social and cultural rights and duties) of Title III (fundamental rights, duties and liberties) provides for the right to live in a balanced environment, and the duty of defending it (paragraph 1), the same article establishes in its paragraph 2 that, “*the State and the local authorities, with the collaboration of associations of environment protection, shall adopt policies for the defence of the environment and care for the rational utilization of all natural resources.*” So, on one hand, the right to (good) environment is part of the fundamental rights and on the other hand legislative matters regarding the protection of the environment involves not only the State bodies, but also the local authorities and associations concerned with environment.⁷¹

⁷⁰ Africa Biodiversity Collaborative Group (ABCG) (2012): Climate Change in the Western Indian Ocean: A situation assessment and policy considerations . 97 pp.

⁷¹ Mazivila, R: National Report on Legal, Regulatory and Institutional Framework for Land-based Sources and Activities Management in Mozambique. Unpublished Report submitted to UNEP/WIO-LaB Project/Nairobi Convention Secretariat, Nairobi, Kenya, 72p.

In Article 117, Chapter III which deals with social organization, is part of Title IV of the Constitution. This article provides for the responsibility of the State in promoting initiatives for ensuring the ecological balance and the conservation and the preservation of environment aiming at improving the quality of life of the citizens (paragraph 1). According to paragraph 2 of this article,

“as to ensure the right to environment within the frame of a sustainable development, the State shall adopt policies aiming at:

- a) Preventing and controlling pollution and erosion;*
- b) integrate the environment objectives in the sectoral policies;*
- c) promoting the integration of environmental values in educational policies and programs;*
- d) ensuring the rational utilization of natural resources with safeguard of its renovation capacity, ecological stability and of rights of future generations;*
- e) Promoting the placing in order of the territory with view to a correct localization of activities and a balanced socio-economic development.”*

The existing legislation in the Republic of Mozambique comprises, thus, a great deal of the former colonial legislation and those enacted after independence.⁷² Some of the latter legislation has gradually been replacing the former legal instruments, but a lot has yet to be done. Of note is a small sector of the legislation prior to independence that was passed by the Transitional Government, which mainly aimed at ensuring the harmony of social and economic life and the country during the transitional period. No legal instrument regarding matters relating to environment was enacted by the Transitional Government.⁷³

The legal framework regarding protection of the environment in Mozambique comprises a number of instruments including the following:

- Decree-Law n.495/73, of 6 October 1973 – A law determining protection measures against pollution of waters, beaches and margins;
- Law n° 20/97, of 1 October 1997 – Environment Law (*Lei do Ambiente*); and
- Law n° 4/95 of 6 January 1996 – Sea Law or Law of the Sea (*Lei n.º 4/95 - Lei do Mar*).

Decree-Law n.495/73, of 6 of October 1973 was enacted by Portugal, for the protection of coastal and marine environment in the so-called overseas provinces, including Mozambique. The article 1 provides in its paragraph 1 for the prohibition, except with a special license, of throwing or disposal of any noxious waters and residual substances such as petroleum products or mixtures which by any way may cause pollution in the contiguous zone and in the territorial sea of the overseas provinces, as well as in ports, docks, bottom of lakes, bed and branches of rivers, beaches, margins and other areas under the jurisdiction of the maritime authority. Paragraph 2 of the same article provides for the prohibition of the pollution of any part of the area under the jurisdiction of maritime authorities by any agent from outside that area. According to paragraph 3 of the same article, maritime authorities are given power to take adequate measures as to impede and repress the violation of the above mentioned prohibitions.

⁷² Ibid.

⁷³ Ibid.

Law nº 20/97, of 1 October 1997- Environment Law (*Lei do Ambiente*), is the foundation to the whole set of legal instruments regarding the preservation of the environment. This Law establishes provisions of general and specific application, but it does not include any specific provision for coastal and marine environment protection. Nonetheless, as an umbrella law for environmental matters it is an important instrument for the enactment of specific regulations on the concerned subject matter.

The Environment Law (Article 2) defines the legal basis for correct utilization and management of the environment and its components, with a view to operationalization of a sustainable development system in the country. The ambit of the Environment Law comprises all activities public or private, which directly or indirectly may influence the environment components (Article 3). Taking into account the constitutional provision on a balanced environment for all citizens, in its article 4 the Law establishes a number of basic principles for the management of the environment, specified below:

- a) Rational utilization and management of the of environment components, with view to promotion of the betterment of the quality of life of citizens and for the maintenance of biodiversity and ecosystems;
- b) Recognition and valuation of traditions and knowledge of local communities, which may contribute to the conservation and preservation of natural resources and of the environment;
- c) Precaution on grounds of which the environment management authority must prioritize the establishment of a prevention system against any acts prejudicial to the environment, as to avoid the occurrence of negative, serious or irreversible environmental impacts, regardless of the existence of scientific certainty on the occurrence of such impacts,
- d) Global and integrated vision of the environment, as a set of inter-dependent ecosystems, natural and built up, which must be managed in a manner as to maintain its functional equilibrium without exceeding its intrinsic limits,
- e) Wide participation of citizens, as a crucial aspect of implementation of the National Program of Environment Management;
- f) Equality which ensures the same opportunities of access and use of natural resources to men and women;
- g) Liability, on the basis of which, whoever pollutes, or in any other way causes degradation to the environment, has always the obligation to repair or to compensate the damages deriving therefrom;
- h) International cooperation, for the achievement of harmonious solutions of environmental problems, as recognized in their trans-boundary and global dimensions.

Comparing those provisions from Environment Law and from the Sea Law, which attribute regulatory powers to the Government, it can easily be concluded that those of the Environment Law (articles 9 and 10) are general, while the one from the Sea Law (article 34 – f) is specific, concerning the regulatory competence with a view to prevent and to preserve the maritime and coastal environment.⁷⁴

⁷⁴ Ibid.

Finally, The Sea Law (National Law of the Sea), Law n° 4/95 of 6 January 1996 (*Lei n.º 4/95 - Lei do Mar*), defines maritime belts on which the Mozambican State exercises its sovereignty, and establishes their legal regime. In general terms, this Law is consistent with the 1982 International Convention on the Law of the Sea, which was ratified by Mozambique through its National Assembly.

The Law of the Sea provides, *inter alia*, in its article 34 – f) for the Government to enact regulations on protection and preservation of the marine environment and general management of the territorial sea, contiguous zone, exclusive economic zone and continental shelf.

Thus Mozambique too has a number of important legal instruments on environmental protection. The main outstanding challenge, apart from dedicated legislation, is the question of enforcement and compliance.⁷⁵

On policy matters, there is a **National Strategy for Sustainable Development**. Following the World Summit for Sustainable Development, Mozambique started the process of preparing a national strategy for sustainable development in 2002, with the objective of integrating the recommendations from the Johannesburg Plan of Implementation into the national agenda. The National Strategy assumes that for different groups of the society to work together they need to have a common and clear vision on sustainable development and environmental management. It assumes also that the idea of “sustainable development” is relatively new but it is fundamental to the development process and requires some understanding by the relevant partners. The Strategy is clearly an important national initiative that is firmly based on local knowledge, local ideas, local expertise and local solutions. It is envisaged that when necessary, external support can be provided, drawing on appropriate experiences and ideas from elsewhere.

The priority areas identified in the National Strategy are: biodiversity conservation, land degradation, health, education, agriculture, water, energy and technology transfer. This is consistent with WEHAB (water, education, health, agriculture and biodiversity), as agreed in Johannesburg in 2002. The implementation of the Strategy would be supervised by the National Council for Sustainable Development and the Council of Ministers and once approved would be used by all sectors in the preparation of their plans.⁷⁶

The National Environmental Policy was approved by Resolution n° 5/95 and is a principal instrument in terms of specific plans for the environmental sector. Its main objective is to provide for the sustainable use of natural resources.

This policy recommends sustainable and optimal use of natural resources with the State being responsible for creating incentives through concrete actions. This policy introduced principles and objectives of the Government into the management framework for the establishment of a

⁷⁵ UNEP/Nairobi Convention Secretariat and WIOMSA (2009): Regional Review of Policy, Legal and Institutional Frameworks for Addressing Land-based Sources and Activities in the Western Indian Ocean Region. UNEP, Nairobi, Kenya.

⁷⁶ Mazivila, R: National Report on Legal, Regulatory and Institutional Framework for Land-based Sources and Activities Management in Mozambique. Unpublished Report submitted to UNEP/WIO-LaB Project/Nairobi Convention Secretariat, Nairobi, Kenya, 72p.

healthy environment, harmonizing with the principles of the national Constitution and several international agreements, treaties and conventions to which Mozambique is signatory.⁷⁷

It was this policy that for the first time introduced the need for integration of environmental issues into economic planning; recognized the role of the communities in environmental management, environmental monitoring, and acknowledges the role of the private sector in environmental management. It also defined the strategy that amongst other things recommended the framework for the Ministry for Coordination of the Environmental Affairs, and the need for multi-sector coordination.⁷⁸

The overall objectives of the environmental policy are to ensure the sustainable development of the country, taking into consideration the specific conditions, through a realistic and acceptable compromise between socio-economic progress and protection of the environment. The policy aims at:

- i) Ensuring an adequate quality of life to Mozambican citizens;
- ii) Ensuring the management of natural resources and of the environment in general, so as to maintain its functional and productive capacities for the present and future generations;
- iii) Developing environmental consciousness among the populations to enable public participation in environmental management;
- iv) Ensuring the integration of environmental considerations into the socio-economic planning process;
- v) Promoting the participation of local communities in the planning and decision making process on the use of natural resources;
- vi) Protecting essential ecosystems and ecological processes;
- vii) Integrating the regional and international efforts in seeking solutions to environmental problems.

There is also the Strategic Plan for the Environmental Sector (2005-2015) integrating the Action Plan for Fight Against Draught and Desertification, the Strategy for Urban Environment Management, the Coastal Zone Management Strategy, the Strategy and Action Plan Controlling and Fight against Soil Erosion, the Strategy to Combat Deforestation and Burning, the Urban Solid Wastes Integrated Management Strategy, the Hazardous Wastes Management Strategy and Biodiversity Strategy and Action Plan for Biodiversity Conservation.⁷⁹

⁷⁷ Ibid.

⁷⁸ Ibid

⁷⁹ Ibid

The priority areas identified in the strategy are: biodiversity conservation, land degradation, health, education, agriculture, water, energy and technology transfer. This is consistent with WEHAB, as agreed in Johannesburg in 2002.

Other relevant policy instruments are the **National Action Plan to Combat Desertification and Drought (PANCOSSEDE)**; National Forests and Wildlife Policy and Strategy; National Tourism Policy and Strategy; National Fisheries Policy; National Land Policy; Agrarian Policy; National Water Policy; and the Strategy and Action Plan for Biodiversity Conservation in Mozambique.⁸⁰**Energy Policy and Strategy**⁸¹; **National Environmental Policy**⁸²; **Policy for Disaster Management**⁸³; **Coordinating Board for Disaster Management**⁸⁴; **National Policy for Land Use Planning**⁸⁵; **National Action Program for Adaption to Climate Change(NAPA)**; **Policy**⁸⁶ and **Strategy**⁸⁷ for Meteorology Development; **Conservation Policy and Implementation Strategy**⁸⁸.

2.3.2 National Institutions

Through an Order (*Despacho*) of the Prime Minister of 5 January 1995, a committee was created at the level of the Council of the Ministers to carry out a study aiming at ensuring control of marine waters by the acquisition of patrolling equipment. The members of the Committee were the Ministers of Transport and Communications (Chairperson), National Defence (Vice-Chair Person), Agriculture and Fisheries, Coordination of Environmental Action, Planning and Finance, Home Affairs, and Industry, Commerce and Tourism. This Committee was to identify and harmonize with relevant sectors, the existing means for guaranteeing the maritime controlling system; propose regulatory system suitable to the county, in harmony with pertinent legislation on the matter; and propose, if necessary, the alteration or the revision of the relevant legislation.⁸⁹

The above Committee was temporary but it marked the start of a process aiming at the building of a new institutional framework for the preservation of the marine and coastal environment. The main public bodies constituting the institutional framework are:

- The Ministry for the Coordination of Environmental Affairs (*Ministério para a Coordenação da Acção Ambiental –MICOA*)
- **National Directorate for Environmental Management (Direcção Nacional de Gestão Ambiental (DNGA))**

⁸⁰ Ibid

⁸¹ Approved by Resolution N^o 5/98 of 3 March.

⁸² Approved by Resolution N^o5/95 of 3 August.

⁸³ Approved by Resolution N^o18/99 of 10 June.

⁸⁴ By Presidential Decree N^o 5/99 of 10 June

⁸⁵ Land Use Planning Policy adopted by Resolution N18/2007 of 30 May

⁸⁶ Approved by Resolution N^o7/96 of 2 April

⁸⁷ Approved by Resolution N^o 43/2006 of 26 December

⁸⁸ Approved by Resolution N^o63/2009 of 2 November

⁸⁹ Ibid

- National Directorate of Environmental Impact Evaluation - NDEIE (*Direcção Nacional de Avaliação do Impacto Ambiental – DNAIA*)
- National Directorate for Territorial Planning (DNPT) (*Direcção Nacional de Planeamento e Ordenamento Territorial – DINAPOT*)
- The Centre of Sustainable Development of Coastal Zones (*Centro de Desenvolvimento Sustentável para a Zona Costeira – CDS – Zonas Costeiras*)
- The Centre of Sustainable Development of Urban Zones (*Centro de Desenvolvimento Sustentável para a Zonas Urbana – CDS – Zonas Urbanas*)
- The Centre of Sustainable Development of Natural Resources (*Centro de Desenvolvimento Sustentável para a Zonas Urbana – CDS – Recursos naturais*);
- National Institute of Hydrography and Navigation.

MICOA is defined in the Presidential Decree nº 6/95 as the central organ of the State apparatus, which according to principles, objectives and tasks defined by the Council of Ministers, directs and executes the environmental policy, coordinates, assists, controls and stimulates the correct planning and utilization of natural resources of the country. The objectives and functions of MICOA are defined in article 2, and its competences for the realization of such objectives are distributed into four domains, which are of coordination, assistance or advice, control, and evaluation. In order to direct the implementation of the policy defined by the Government for the environmental sector, other competences of MICOA are described in article 4. Such competences cover *inter alia*, decisions on environmental impact studies and on technical quality of environmental impact evaluation, as well as matters relating to environmental auditing, proposals for sustainable development policies, and creation of incentives. MICOA is currently comprised of: The National Directorate for Environmental Management (DNGA); the National Directorate for Territorial Planning (DNPT); and Sustainable Development Centre (CDS ZC). CDS ZC is responsible for coordinating and promoting research; the provision of advisory services and technical training and the development of pilot activities that contribute to policy development and formulation of legislation including those related to coastal management, marine and lake shores. The Research Center of the Marine and Coastal Environment (CEPAM) is also a government body under MICOA and has the mandate of conducting applied scientific research programs on marine and coastal ecosystems, in order to contribute to ICZM across the country.

Responsibilities for the coordination of all activities related to coastal zone management fall directly under MICOA through the DNGA and with the technical advice of CDS.

The National Directorate of Environmental Impact Evaluation - NDEIE (*Direcção Nacional de Avaliação do Impacto Ambiental – DNAIA*), which is the competent authority for the evaluation of environmental impact (EIA), as defined in Article 5 of the Presidential Decree no 6/95, forms part of the organizational structure of MICOA. NDEIE (DNAIA) is competent for, *inter-alia*, (a) carrying out of the management and coordination of the process of EIA; b) issuing and divulging

directives on EIA; and (c) performing pre-evaluation of each activity submitted for its consideration.

In the fulfillment of its competences and functions, MICOA interacts with various institutions, such as the maritime administration, fisheries, mining, agriculture and forests, which have environmental responsibility in their scope of activities and tasks.

The Ministry of Fisheries has an important role in the coastal management. The Sea Law⁹⁰, taking into account the conservation of certain areas and the preservation and protection of marine species, allows for the establishment of:

- a) Marine National Parks - established by decree of the Council of Ministers, on a proposal from the Minister of Fisheries or any other national entity, with opinion of the Ministry of Fisheries;
- b) Marine Nature Reserves - established by decree of the Council of Ministers, on a proposal from the Minister of Fisheries or any other national entity, with opinion of the Ministry of Fisheries;
- c) Marine protected areas - these areas may be established by the Minister of Fisheries

Other Ministries that play an important role include:

- Ministry of Tourism- National Administration of Conservation Areas (ANAC)
- Ministry of Public Works and Housing (MOPH) and National Directorate of Water (DNA) and the Regional Administration of Water –Southern; Central; Northern; Zambezi.....
- Ministry of Mineral Resources (Mining Law N° 14/2002, 26 June)
- Ministry of State Affairs (MAE) – National Institute for Disasters Management (INGC)

2.3.3 National Civil Society Organizations

Examples of national CSOs include Associação dos Naturais e Amigos da Ilha da Inhaca (ANAI)⁹¹; Centro Terra Viva (CTV); Christian Council of Mozambique (CCM); Community Development Foundation (FDC); KULIMA; LUPA; LIVANINGO; Mozambican Association of Women in Legal Careers (AMMCJ); National Union of Peasants (UNAC); Endangered Wildlife Trust (FNP); and the Rural Organization for Mutual Assistance (ORAM).

Within Mozambique, there are a number of platforms/fora that act as umbrella organizations for civil society at national and provincial level such as the Christian Council of Mozambique or Forum Terra; Association of Women in Legal Careers (AMMCJ); The Community Information and Communication Support Centre (CAICC); Civil Society Platform on Climate Change and Civil Society Platform for Natural Resources and Extractive Industry.

At provincial level, in Cabo Delgado a forum on Civil Society Thematic Group on Natural Resources and Sustainable Development, led by AMA, is also currently operational.

⁹⁰ Law N°4/96 4 of January

⁹¹ UNEP/Nairobi Convention Secretariat. Transboundary Diagnostic Analysis of Land-based Sources and Activities Affecting the Western Indian Ocean Coastal and Marine Environment, UNEP Nairobi., p 255.

Additionally, there are a number of international organizations active which include; the AgaKhan Foundation; CARE; FHI; Helvetas Mozambique; Oxfam Belgian; WWF; Save the Children and SNV.

Academic and research institutes active in the marine and coastal environment include; Universidad Eduardo Mondlane (UEM); Research Center of the Marine and Coastal Environment CEPAM (Pemba); School of Marine and Coastal Science (Quelimane); and the Unilurio Catholic University of Mozambique (UCM).

Private sector agencies such as those currently engaged in Oil and Gas, for example - National Oil Company (ENH), Anadarko and STATOIL, will also need to be engaged as part of the current MFF-WIO initiative. This is true for all countries included in the Programme.

2.3.4 Projects and programmes relating to the marine and coastal environment

As mentioned previously under the framework of the IOC-UNESCO, an IOC Regional Committee for the Western Indian Ocean (IOCWIO), there has been focus on encouraging and facilitating self-driven capacity development initiatives in the region including Mozambique, with aligned institutions initiating six projects in four countries on coastal and marine management. The projects addressed priorities identified by institutions and government representatives involved in the programme, both in terms of capacity development and management issues, including: Bon Sinais- School of Marine and Coastal Sciences- UEM/ National Institute of Hydrography and Navigation- INAHINA) Beira- dredging and sediments (INAHINA/UEM).

WIO regional projects involving Mozambique that are recent or on-going include the South West Indian Ocean Fisheries Project (SWIOFP), implemented by the World Bank; the Agulhas and Somali Currents Large Marine Ecosystem Project (ASCLME), implemented by the United Nations Development Programme (UNDP); and the “Project Addressing land based activities in the Western Indian Ocean (WIO LaB),” which ended in 2010 and was executed by the Nairobi Convention Secretariat.

Examples of ongoing projects/initiatives taking place at the local level include the following:

The Management Committee for Natural Resources (CGRN) Nhangau- Sofala Province is working on restoration of mangroves. This activity started 2004 up to date, after an atmospheric event that occurred before. The mangrove restoration programme in Nhangau is supported by an integrated team composed by Provincial Directorate for Environmental Coordination of Sofala, the Local Economic Development Agency ADEL-Sofala (NGO that works with number of different Stakeholders including private companies), Provincial Directorate of Agriculture and Provincial Services of Forest and Wildlife of Sofala (Personal communication of two sources one from the local CGRN and from DPCA-Sofala)

Primeiras & Segundas Programme is been implemented by Care and WWF Alliance in Nampula and Zambézia Provinces. The Primeiras & Segundas program is working with government and other partners to design and implement a marine and coastal protected area (already declared) that works to achieve both biodiversity and social development outcomes. Care and WWF Alliance are currently working with DNAC to develop a management plan that will help them to meet these objectives. Along with the development of a management plan they are currently working with government in enabling communities to meaningfully engage in the national government strategy for co-management by strengthening

community rights through acquiring land title, raising awareness of their rights, building legal community institutional arrangements, building capacity, developing management plans, piloting stronger rights based approach to artisanal fisheries with IIP and IDPPE; improving agricultural productivity and resilience to CC, introducing alternative income generation via (future, \$ are secured) aquaculture, future apiculture, vaccination campaigns for fowl, protection activities etc. Primeiras and Segundas Programme is engaging in resilience, via introduction of more CC resistant forms of agriculture, NRM e.g. mangroves, fisheries management e.g. no-take sanctuaries and other community fisheries initiatives, improving land and resource security, building capacity, introduction of non-extractive SMEs (future). Several programmes are in placed in Quissanga and Ibo Island in education sector with integration of environmental issues on the local curricula in Cabo Delgado Province. WWF with REDD programme are working on Quirimbas National Park (QNP). Also there are working on mangrove and fisheries management.

The GEF/SGP is implemented by UNDP on behalf of the implementing agencies of the Global Environmental Facility. In 2012, nineteen programmes were implemented in the following priority GEF focal Area: Climate Change, Land Degradation, Biodiversity, International Waters and Persistent Organic Pollutants (POPs), in the following provinces: Cado Delgado, Nampula (Protection Turtle marine), Zambezia, Sofala (Nhangau Mangrove), Manica, Inhambane, Gaza and Maputo. The total amount for last year \$400000.

The project “Adaptation in Coastal Zones in Mozambique” started in the end of the last year and early this year. This project is implemented by DNGA/MICOA in collaboration with UNDP. This project has been approved by GEF and Mozambique Government.

The draft of the report on Strategic Environmental Assessment of the Development Along the Coastal Zone of Mozambique⁹² of MICOA, elaborated by IMPACTO, is available on the internet

The NAPA in Mozambique has been implemented through several country-driven pilot projects including the following:⁹³

Project	Type	Focus	Donor	Implementin g agency
Disaster risk management and efficient early warning system	Resilience	Capacity- building and institutional strenghtening	BMZ	INGC
Sustainable management and use of forests	Resilience	Capacity- building of local communities	Finland	

⁹² www.impacto.co.mz/PDFs/Vol1.pdf September 2012

⁹³ Africa Biodiversity Collaborative Group (ABCG) (2012): Climate Change in the Western Indian Ocean: A situation assessment and policy considerations . 97 pp.

Adaptation to drought and to climate change	Coping	Capacity-building, policy formulation and field implementation	SCCF	UNEP
Mainstreaming adaptation to climate change in the system of disaster risk management of the Buzi River watershed	Resilience	Policy formulation and capacity-building including an early warning system for thunderstorms and floods	BMZ	UNDP
Adaptation in coastal areas	Coping and resilience	Capacity-building of communities living in the coastal zones, to manage the risks associated with climate change	LDCF	UNDP
Support to adaptation to climate change	Coping	Capacity-building	USAID	Gouvernement du Mozambique
Mainstreaming of the environment and of adaptation to climate change	Resilience	Policy formulation and integration, capacity-building, diversification of the sources of revenues	Spain MDG Achievement Fund	UNDP

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