



# **Environmental Assessment in the WIO Region**

**An overview of the policy, legal, regulatory and institutional frameworks related to Environmental Impact Assessment in the WIO Region**

**Final Regional Report**

**Environmental Assessment in the WIO Region: An overview of the policy, legal, regulatory and institutional frameworks related to Environmental Impact Assessment in the WIO Region**

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## **Executive Summary**

This report analyses Environmental Assessment (EA) policy, regulatory, legislative and institutional frameworks and practice in Western Indian Ocean (WIO) countries, most of which are Party to the Nairobi Convention. These countries include Kenya, Tanzania, Mozambique, South Africa, Seychelles, Comoros, Madagascar and Mauritius. Its purpose is to seek ways of improving the application of EA in the WIO Region so that negative impacts of environmental degradation and pollution in the coastal and marine environments can be avoided or reduced. In addition to suggesting strategies for improving EA at country levels, the report also examines the possibilities of harmonizing policy and practice in the Western Indian Ocean (WIO) Region.

The following have been identified as key transboundary environmental problems related to the impacts of Land-based Sources and Activities (LBS/A on the marine and coastal environment in the WIO region:

1. Pollution from land-based sources and consequent degeneration of water quality;
2. Physical alteration and destruction of habitats; and
3. Alteration of freshwater flows and sediment loads from rivers;

The above-listed problems are linked to the root cause of inadequate governance, and weak application of EA as a planning tool.

This study has found that most of the countries in the WIO Region have framework legislation and other instruments on environment, including coastal and marine environment. However, the protection and management of the coastal and marine environment is generally inadequate, partly because of a shortage of appropriate management tools, lack of finances and technical personnel. An important challenge facing the countries of the region is how to align their framework legislations, institutions and policy instruments in such a way that they provides a more focussed attention to coastal and marine environment generally, and LBSA issues in particular. Alternatively, the countries should consider specific consolidated laws, institutions and policies to address these issues in a more concerted, focused and sustainable manner. The new laws and other instruments should respond to concerns that are addressed by the proposed LBSA Protocol to the Nairobi Convention. None of the WIO countries has a specific and consolidated legislation, institution or policy instrument focussed on LBSA issues as such, or even the coastal and marine environment generally, perhaps with the exception of those countries that have established ICZM policies and legislation.

Furthermore, laws and institutions relating to tourism in the WIO Region are concerned mostly with land tenure and land use planning, rather than the environmental impacts of this fast growing industry. Forestry legislation, institutions and policy instruments are fragmented, sparse and indirect, in spite of the fact that in most of the countries, mangroves are a vital component of marine and coastal ecosystems and human livelihoods. Inadequate legislation (including inadequate implementation of legislation) in some countries has resulted into problems of competing land uses, such as salt works, aquaculture, mariculture and agriculture. Legislation on ports and harbours tends to be fairly explicit in most of the countries, but gaps exist with regard to enforcement of environmental standards and requirements. This makes ports and harbours' works, especially dredging and expansion, an LBSA problem. Similarly, mining, land reclamation, irrigation and damming of rivers are areas of concern as these sectors generally have either weak and inoperative provisions or ineffective enforcement mechanisms. Other sectors of concern, such as agriculture and

manufacturing industries, pose problems such as the pollution of coastal and marine areas from chemical by-products and other wastes.

The challenge and opportunity for the countries of the region is to focus on establishing dedicated and focused laws, institutions, policy and regulatory frameworks to avoid a deterioration of an already critically injured coastal and marine resource base. The concept of integrated coastal zone and river basin management, has steadily or incrementally been applied over the last decade in many of WIO countries, is probably the way of the future in dealing with the LBSA issues of concern.

This study has found that there are a number of weaknesses in the way that sustainable development planning tools, notably Impact Assessment<sup>1</sup>, are applied in the WIO region. These include:

- The timing of the Impact Assessment is often too late in the planning process to influence decision making and the nature of the development;
- The relevance of information provided in EIA reports is not made explicit, leaving the non-specialist with the question “so what?”
- Lack of sufficient environmental information, either due to lack of data, or lack of effort to find existing data;
- The implications of gaps in information, uncertainty and/or risks are often not made explicit in terms of irreversibility of impacts, irreplaceable loss of resource, etc;
- Environmental input is often focused on the affected site and at species-level, rather than addressing broader, landscape-scale effects on ecosystems and processes;
- There is little consideration of indirect, cumulative and transboundary effects;
- The Terms of Reference for many impact assessments and specialist studies are often poorly defined;
- The criteria used to determine the significance of impacts are often questionable. They are often not linked to a broader strategic context (e.g. policy objectives, transboundary frameworks, conservation plans);
- The linkages between the environment, ecosystem services and human wellbeing, including the dependence on resources by vulnerable communities, are seldom clearly articulated. Consequently, the effects of development on these linkages – and ultimately communities – are not appreciated or considered; and
- There is over-reliance on environmental management plans and programmes for effective mitigation.

As a consequence therefore, the authorities charged with the responsibility of managing and protecting the environment find it difficult to make informed decisions when the Impact Assessments are inadequate. However, there are many cases where the impact assessment

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<sup>1</sup> Impact Assessment is defined as a process that is used to identify, predict and assess the potential positive and negative impacts of a proposed development and to propose appropriate measures to avoid or minimise impacts. **Environmental Impact Assessment (EIA)** is the application of impact assessment to individual projects while **Strategic Environmental Assessment (SEA)** is the application of impact assessment to policies, plans, and programmes.

report is adequate, but decision making does not seem to support sustainable development. There are several possible reasons for this:

- The development imperative in most WIO countries requires short-term socio-economic benefits to be realized;
- In some countries, there is a general lack of clear guidance or criteria on which to base EIA decisions. This often results in inconsistencies in decision making e.g. the lack of clarity about sustainability principles (such as the Precautionary Principle) and how to apply them;
- Inadequate consultation and cooperation between authorities, either within a country or between countries;
- Inadequate experience within the government departments to properly guide and review environmental studies;
- Cumulative and transboundary effects are seldom addressed at project-level EIA and therefore developments are approved on a piecemeal basis, without the bigger picture being considered;
- Records of decision or letters of authorization are vague and the associated conditions of approval are often impossible to implement or audit, and are vulnerable to legal challenge, and
- The implementation of conditions of authorization is not fully followed-up by authorities.

Finally, there are unfavourable 'Frame Conditions' in many WIO countries that make it difficult to apply sustainable development and planning tools (such as SEA and EIA) and to implement the Nairobi Convention. These include poor governance, weak environmental institutions, lack of strategic partnerships and a general low level of prioritization of environmental issues..

The key findings of this report are that some adjustments are needed to improve EA legislation in WIO countries, but that there is no need for major 'harmonization'. Instead, governments must simply be more committed to implementing the letter and spirit of their existing policies and laws and to exercising the appropriate levels of governance that are required to implement the Nairobi Convention.

## List of acronyms and abbreviations

CBBIA - Capacity Building for good practice in Biodiversity and Impact Assessment

CBO – Community based organisation

CDA – Coastal Development Agency

COP – Conference of the Parties

CORDIO – Coral Reef Degradation of the Indian Ocean

CRCP – Coastal Reef Conservation Project

DEAT – Department of Environmental Affairs and Tourism

DFID – Department For International Development

EA – Environmental Assessment

EEZ – Exclusive Economic Zone

EIA – Environmental Impact Assessment

EIS – Environmental Impact Statement

EMP – Environmental Management Plan

GEF – Global Environment Facility

GMO – Genetically Modified Organism

Ha – Hectares

IAIA- International Association for Impact Assessment

ICZM – Integrated Coastal Zone Management

ISO – International Standards Organisation

NEAP – National Environmental Action Plan

NEC – National Environment Council

NEMA – National Environmental Management Act (South Africa)

NEMA - National Environment Management Authority (Kenya)

NEMC - National Environment Management Council (Tanzania)

NEP – National Environment Policy (Tanzania)

NBSAP – National Biodiversity Strategy and Action Plan

NCEIA – Netherlands Commission for EIA

NGO – Non governmental organisation

ONE - Office National de l'Environnement (Madagascar)

POP – Persistent Organic Pollution

RoD – Record of Decision

SADC – Southern African Development Community

SAIEA – Southern African Institute for Environmental Assessment

SAP – Strategic Action Plan

SEA – Strategic Environmental Assessment

SHE – Safety, Health and Environment

TDA – Transboundary Diagnostic Analysis

TIA – Transboundary Impact Assessment

UNEP – United Nations Environment Programme

USAID – United States Agency for International Development

WIO – Western Indian Ocean

WWF – World Wildlife Foundation (also called World Conservation Union)

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# 1. Introduction

This report provides a critical analysis of EA policy, regulatory, legislative and institutional frameworks and practice in the Western Indian Ocean (WIO) Region countries that are Party to the Nairobi Convention for the protection, management and development of the coastal and marine environment in Eastern Africa. These countries are Kenya, Tanzania, Mozambique, South Africa, Seychelles, Comoros, France Reunion<sup>2</sup>, Madagascar and Mauritius (see figure 1).



**Figure 1: Map of the Indian Ocean Region** (source [www.gpa.unep.org](http://www.gpa.unep.org))

According to the TDA focused on land-based sources and activities that was prepared under the WIO-LaB Project, there are three distinct international biodiversity and numerous

<sup>2</sup> France Reunion though a contracting party to the Nairobi Convention was not covered under the study

World Heritage Sites in the WIO Region and each of the WIO country has designated more than one Ramsar site. The region also has a number of major watersheds and a large proportion of the population is fully or partially dependent on natural resources for their industries, livelihoods, subsistence and survival. Nature-based tourism, or 'ecotourism', is one of the fastest growing sectors and comprises a major part of the economy of all WIO countries.

The coastal ecosystems of the region are generally both rich in natural resources and highly productive, and include mangrove forests, coral reefs, and seagrass meadows. These ecosystems sustain a great diversity of marine life and represent an important food source for most coastal communities.

Seagrass beds occur in the intertidal mud and sand flats, coastal lagoons, and sandy areas around the bases of shallow fringing and patch reefs throughout the region. The most extensive beds are around Bazaruto archipelago in Mozambique, while coral reefs occur all along the East African coast where they provide habitats for a wide variety of marine species and protect coastal areas from erosion and storm damage. Like mangrove forests, coral reefs are under pressure from human activities threatened by land use practices and siltation, water turbidity, fishing practices involving dynamite, poisoning, and over-harvesting to extract their rich biological and mineral wealth. Five species of endangered marine turtles occur in the region while the only viable population of the endangered dugong is found only in Mozambique.

The marine fishery in the region is dominated by artisanal fisheries, which are an important source of food, employment, and income for most of the coastal communities in the region. Coastal Commercial Fisheries are mainly dependent on shrimp while High Seas Commercial Fisheries include purse-seine and longline fishing in the open ocean. As noted in the preliminary TDA, the important coastal and marine habitats, associated species and livelihood options are all affected in some way by impacts from development. Ways need to be found to achieve a balance between development and conservation so that the goal of sustainable development can be achieved.

Thus, the main purpose of this report is to seek ways of improving the application of EA so that negative impacts of land based activities on the coastal and marine environments, can be avoided or reduced altogether. It is recognized that EA (both at strategic and project levels) could be a key tool in each countries development process as envisaged in the Nairobi Convention. In addition to improving EA at country levels, the report examines the possibilities of harmonizing policy and practice in the entire Western Indian Ocean (WIO) Region. This Regional Report is accompanied by a Regional Guideline document that provides advice on how best sustainable development tools (such as EA) can be used to assist each country to meet its obligation as a contracting party to the Nairobi Convention.

The analysis of Environmental Assessment (EA) in the WIO Region begins with a review of the overall 'vision' of the various participating countries. The vision is generally gleaned from the Constitutions of the participating countries or some other strategic documents. In most cases, the Constitution is regarded as the 'supreme law' even though it generally requires sectoral legislation to enable enforcement. The need to study the Constitution or vision is important in that it provides an idea as to how the country defines its most fundamental principles, be they political, social, economic or environmental. The existence of environmental clauses in a Constitution provides a number of possibilities for EA legislation

whilst people's rights to an unpolluted and or degraded environment and freedom of expression are also key issues when it comes to pursuing EA 'best practice'.

The section on EA policy and legislation provides an analysis of the actual framework for the implementation of EA in the country. In most countries, there is a myriad of sectoral policies and laws that make up a 'legal toolbox'. Many of these are directly relevant to the prevention of land based pollution impacting upon the coastal and marine environments of the WIO Region. Others have no direct relevance to EA per se', but because they relate to issues such as natural resource management, conservation, land use planning, pollution and other issues, they have been included in this report. It is perhaps more challenging to know what policies and laws to leave out, than what to include in this report. The inclusion of every policy and law with a bearing on the environment (broadly defined) would result in a report running into many volumes. Instead, it was decided to maintain as sharp a focus as possible so as to avoid superfluous detail.

Assessing the use of EA in a country or region requires a close look at the capacity to use the tools that are defined in law. Capacity in this case means the existence of institutions with a clear mandate to guide and review EA processes and reports, and the existence of suitably qualified, experienced and motivated staff that have the appropriate competencies. This report tries also to assess the capacity of the private sector to undertake EA studies (as consultants) and the capacity of civil society to participate in EA processes. Overall capacity is usually achieved when government, the private sector and civil society all participate fully in EA processes. Assessing capacity requires intimate knowledge of the country and an appreciation of the opinions of those people who grapple with the local challenges every day.

## **Methodology**

Compiling this document required a combination of literature research, personal communications with representatives from the various Western Indian Ocean countries and other resource persons familiar with these countries, visits to some of the countries in the course of many years of working in the region, and expert opinion based on experience gained through this and many other projects in the past.

UNEP/GEF WIO-LaB Project led consultative workshops held in Maputo and Zanzibar in 2006 and 2007 enabled detailed discussions with in-country experts and a work-shopping of the key issues and options (UNEP, 2006b, 2007a-b). The consensus reached during these discussions provided a platform upon which knowledge and ideas could be built and developed.

Once the draft report was compiled, it was circulated widely in the WIO countries for comment, a process which culminated in the Zanzibar feedback workshop at which there were detailed discussions about the report. The draft report was finalised in November 2007 during the meeting held in Somerset West, South Africa, after more comments had been received from various stakeholders.

Every attempt has been made to ensure that the analysis provided in this report is both accurate and balanced. Whilst criticism is often warranted, it has been offered with the objective of encouraging improvement

## **2. Country overviews**

### **2.1 Comoros**

#### **2.1.1 *National Vision***

The Constitution of 23 September 2001 stipulates in its preamble that people of the Comoros have a right to a healthy environment and obliges everyone to protect the environment. It also commits the government to respect international agreements to which the country is a Party, including the Nairobi Convention.

#### **2.1.2 *EA legislation***

Comoros has framework environmental legislation and several other laws that deal with EA and land based pollution. The Framework Environmental Law (Loi No. 94-018 du 23 Juin 1994) aims to preserve the diversity and environmental integrity of the Comoros, manage the utilisation of natural resources for the present and future generations, and guarantee to all citizens, a safe and balanced living environment. A Decree on EIA Regulations was passed in 2001 (Decree N°1-052/CE).

The Framework Environmental Law provides for mandatory impact assessment study for major coastal and other developments which have or are likely to have environmental impacts, and prescribes penalties for breach of its provisions. In this regard power is vested in the Director General of Environment to ensure compliance.

Some of the other laws relating to other relevant sectors include Loi no.82-005 (delimitation des zones maritimes), which defines Comoros' maritime zones and vests jurisdiction in the State. Of relevance also is Decret no. 71-360 of 06.05.1971 on territorial waters.

#### **2.1.3 *Institutional capacity***

##### **Government**

National and regional (provincial) institutions were established during 1993/94 with the support of the UNDP under a national programme on the environment. The primary national environmental institution is the National Directorate of Environment and Forests (La Direction Nationale de l'Environnement et de la Forêt (DNEF)) established under Decree No. 93-115 and further elaborated by subsidiary regulation No. 93-20/MDRPE-CAB. The coordination of multi sectoral environmental actions is undertaken by an inter-ministerial consultative committee on the environment ("Comite Interministeriale Consultatif pour l'Environnement, CICE").

The primary role of the DNEF is environmental protection, including regulation and control, education and public awareness, preservation and care of the natural resources, and the management of areas such as coastal and marine and other protected areas. The DNEF is also responsible for the development of environmental policies and legislation, as well as their implementation. The DNEF falls under the natural resources department of the Ministry of Agriculture, Fisheries and Environment (Ministère de l'Agriculture de la Pêche et de l'Environnement). The DNEF has 4 departments:

- a. Natural Resources;
- b. Monitoring and Regulation;
- c. Information Management;

#### d. Environmental Education

The Ministry also has other institutions such as “Le Service de la Reglementation et du Controle (SRC – Department of Regulation and Control)”, which helps elaborate environmental legislation and the mechanisms for their application, as well as a GIS Department which helps in decision making and information sharing at the national and regional level. DNEF furthermore works in close collaboration with the National Institute for Research in Agriculture, Fisheries and Environment (INRAPE), the National Centre for Documentation and Scientific Research (CNDRS), which mandate is research and development of programmes on comorian fauna and flora and socio-cultural aspects of the environment, public education and sensitisation on diverse environmental themes, as well as the University of Comoros.

The institutional structures responsible for implementation of the national policy and action plan on environment has major limitations and require:

- Enhancement of the capacity at the DNEF and other relevant government institutions by expanding on the levels of education, improving the profile of environment sector and providing better incentives to staff);
- Dedicated EA section in the DNEF with a team of specialists in the specific fields such as marine and land ecology, and environmental as well as an adequate framework for the implementation of EA. In addition, this should include provision of guidelines for exercising quality control in EA processes and definition of explicit requirements for public participation;
- Enhancement of legal and regulatory systems;
- Enhancement of the efficiency of relevant institutions; and
- Improvement of communication, information flow and sensitisation between government and public entities on one hand and the population on the other.

#### **Private sector**

The capacity of indigenous companies/individuals to provide EA consulting services in the Comoros has steadily increased over the years but it is still substantially inadequate. Moreover, given the relatively low level of environmental awareness and education among the citizenry and the fact that public participation is not explicitly required under existing laws and regulations, civil society has so far not become actively involved in environmental issues and is thus not regarded as an active partner in environmental management and protection. Since civil society plays no meaningful watch-dog role, the authorities are under very little pressure from the public to improve the use of sustainable development tools such as EA.

Experience elsewhere in the Region has shown that EA practitioners will be established as soon as they have sufficient incentives to set themselves up as service providers. In many parts of the Region, the ‘environment’ has become a fast-growing ‘professional sector’. Evidence is the growth of post-graduate environmental courses in universities and the many EA consulting firms that have become established. Moreover, civil society will be more willing to invest time and resources in becoming involved in decision making processes when they see that the authorities value their inputs and practice good governance.

#### 2.1.4 **Conclusion and recommendations**

In order to address environmental impacts of development, be they local or transboundary in nature, the government of the Union of Comoros needs to improve its legislative framework, strengthen its institutions and provide an enabling environment that encourages the constructive involvement of the private sector and civil society in development planning and environmental decision making.

The Framework Environmental Law is regarded as too general: neither the EA nor the coastal zone relevant provisions are sufficiently detailed. This law (either in the main Act or the regulations) should be amended to include:

- a specific chapter on the integrated management of the coastal zone
- updated provisions regarding EA including:
  - the need for SEA
  - explicit requirements for public participation
  - appropriate clauses that:
    - i. specify minimum requirements for an EA report (be this an SEA or an EIA);
    - ii. define minimum education and experience criteria for EA practitioners;
    - iii. enable the authorities to commission external reviews of EAs at the proponent's expense; and
    - iv. more stringent penalties for non-compliance.

Moreover, the Framework Environmental Law is not well publicised and despite its existence it is regularly ignored or circumvented. There is a strong need for wide dissemination and awareness-building of the law and its provisions and about environmental issues in general. Experience elsewhere has shown that EA practice improves significantly as soon as people become more environmentally aware. Awareness usually results in citizens demanding improved performance from government and vice versa. The result is improved governance and a more outcomes-based approach to the implementation of policies and laws.

Inadequate application and enforcement of environmental laws and other regulations is common in the Comoros and particular attention should be placed on compliance and enforcement. Because of inadequate capacity within government agencies responsible for environment, the limited implementation remains a major obstacle in the application of the Framework Environmental Law.

Instead, there needs to be a concerted effort to improve the status of the DNEF and to build the capacity of its staff. Even so, capacity should not only mean more and better qualified government officials. Since environment is a cross-cutting theme, capacity should also be defined as improved awareness and competence in the private sector and civil society, and the willingness of government to engage all sectors of society in decision making. Thus, capacity also means the commitment to, and ability to demonstrate, good governance. The government of the Union of the Comoros will only achieve the desired level of environmental protection when it (in order of priority):

- Raises the political profile of the environment and shows a better understanding of the links between environment, livelihoods and sustainable development;

- Builds partnerships with internal and external stakeholders that share a common interest in pursuing the achievement of sustainable development, including civil society and the private sector;
- Undertakes legislative reform;
- Strengthens its environment agencies by creating a dedicated EA unit, improving the quality of their staff and enabling them to utilise outside assistance in achieving quality control.

Once the above are achieved, developers will begin to take ‘environment’ seriously and they will be more diligent in commissioning EIAs for their projects and for implementing Environmental Management Plans. This in turn will be an incentive for EA practitioners to provide better professional services and for young people to see environment as a viable profession. Moreover, civil society will be more willing to invest time and resources in becoming involved in decision making processes.

Putting the required frame conditions in place requires commitment and resources. Comoros is extremely vulnerable to environmental perturbations as well as transboundary impacts. However, since it is an island, many of its problems and vulnerabilities can be overcome by local action.

## 2.2 Kenya

### 2.2.1 *National Vision*

The current Kenyan Constitution lacks specific provisions on environmental governance of natural resources. The proposed draft Constitution of Kenya, published on the 22<sup>nd</sup> of August 2005 (but rejected at a Referendum poll held on 21<sup>st</sup> of November 2005) sought to reinforce the importance of natural resources and made provision for the right of every person in Kenya to an environment that is safe to life and health, to free information about the environment and for compensation for damage arising from violation of these rights. .

The Kenya government attaches great value to issues of environmental governance and the general policy of the government is that development of the coast by economic activities such as tourism, agriculture, fisheries and mining be sustainable. In response, the commitments stipulated under Agenda 21, Kenya’s environment and development policies continue to develop taking into consideration the scarce resources and the various parameters that contribute to environmental degradation such as rapid population growth, high poverty levels, and inadequate capacity in national and local authorities. Priority has been given to developing policies, strategies, and action plans geared towards protection of the natural resources. There is a policy of pursuing sustainable development in all sectors of the Kenyan economy spearheaded by National Environment Management Authority (NEMA), the Ministry of Environment and Mineral Resources and other relevant ministries such as those responsible for agriculture, tourism, fisheries and mining. Kenya has also developed a number of action plans including National Environmental Action Plan (NEAP) which was enacted in 1994.

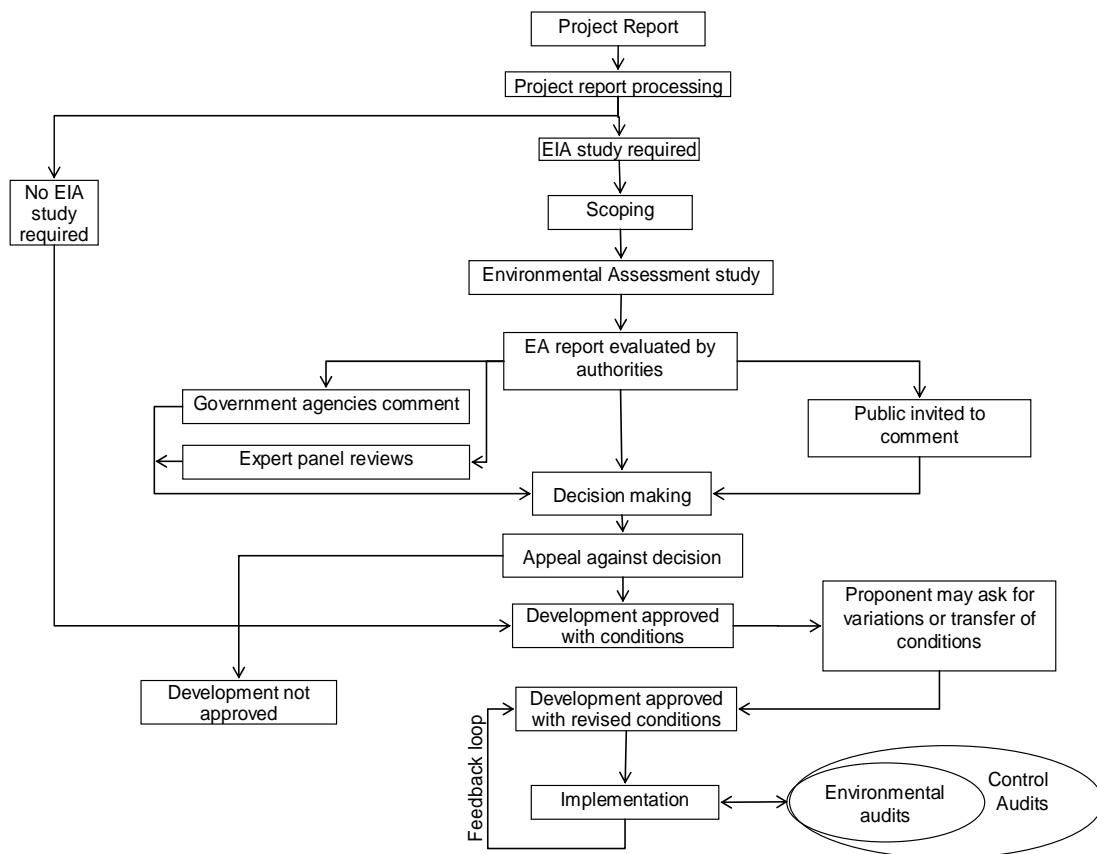
### 2.2.2 *EA legislation*

Kenya’s environmental law is contained in various sectoral laws. The enactment of the Environmental Management and Coordination Act (EMCA) of 1999 provided broad framework legislation dealing with institutional and legal issues relating to a myriad of

environmental issues. EMCA mandates the Minister, in consultation with relevant lead agencies to declare any area of sea to be a protected coastal zone and to prepare an integrated National Coastal Zone Management Plan. The purpose of such a plan would be encouraging affective methods of managing and protecting the marine and coastal environment and associated fresh water catchments and estuaries.

The provisions of Section 55(7) of EMCA are even more pertinent to the implementation of the Nairobi Convention as they relate directly to land based sources and activities. Section 55 (7) mandates the Minister (in consultation with relevant lead agencies) to issue regulations for the control and prevention of pollution to the marine environment from land-based sources, including rivers, estuaries, pipelines, vessels, and from installations and devices that explore or exploit natural resources in the seabed and subsoil of the exclusive economic zone. The Minister is mandated to issue appropriate regulations to prevent, reduce and control pollution of the marine environment.

Section 58 (1) (4) and second schedule of EMCA requires certain projects to undergo EIA studies before implementation. Environmental Impact Assessment and Audit Regulations of 2003 were promulgated pursuant to Sections 58 and 147 of EMCA 1999. The EIA and Audit Regulations have been in force since 2003 and define the EIA process as follows:



**Figure 2: EIA process in Kenya**

As is evident from the above flowchart, the Kenyan EIA process follows international norms in that it incorporates the traditional screening, scoping, study and review stages. An important start to this process is the preparation by the proponent of a Project Report (PR)

which provides the authorities with basic information about the project and enables a first approximation of the possible impacts. An advantage is that the PR must be completed by a certified environmental practitioner, and not merely by the proponent as is the case in most other countries. To be certified, a practitioner must be registered either as a Lead Expert, Associate Expert or a Firm of Experts. Section 14 of the Regulations stipulates the academic and experience requirements for each category.

Importantly in the context of the Nairobi Convention is that section 44 of the Regulations specifically requires an EIA for activities likely to have a transboundary impact and in section 42, there is a specific requirement for SEA. A weakness of the regulations is the fact that public participation appears to be limited to affected parties only, thus reducing the opportunity for non-affected but interested parties, from influencing decision making. The public may appeal against a decision by the authorities and they can request the authorities to initiate an environmental audit anytime after project implementation has commenced. This means that the public can provide some sort of watchdog role if they so wish – an important aspect of good governance.

In addition to directing the EIA process, the EMCA imposes penalties for offences related to pollution and dumping of hazardous substance into the coastal zone. The penalty for offences related to pollution or dumping of hazardous waste is a fine of not less than one million Kenya shillings or imprisonment for a period not exceeding 2 years or both fine and imprisonment.

Important compliment to the EMCA and 2003 environmental regulations in the context of EA and the Nairobi Convention, are as follows:

- The EMCA Water Quality 2006 regulations regulate the discharge of effluent into the environment and the EMCA Waste Management Regulations 2006 regulate the transportation and disposal of waste.
- The EMCA Biodiversity Regulations 2006 regulate the abstraction and utilisation of genetic resources, including coastal and marine resources.
- Water Act of 2002 – concerns the management, conservation, use and control of water resources. The Water Act expressly outlaws pollution in relation to any inland water resources by any direct (e.g. sewerage) or indirect means.
- The Fisheries Act Cap 378 - provides for the conservation of fisheries resources in Kenya. Regulation 59 of the Act declares Kenya's entire fishery waters pollution prevention zones. Regulation 60 prohibits the discharge of waste into any of Kenya's fishery waters.
- The Maritime Zones Act No. 6 of 1989 defines the exclusive economical zone and provides for the conservation and management of the resources of the maritime zones.
- The Maritime Authority Bill of 2005 enables Kenya's ratification of relevant international Conventions, Protocols and Agreements regarding land based sources of pollution. Once enacted, the Bill will repeal the Maritime Zones Act.

- The Agriculture Act Cap 318 of 1963 identifies POPs and agricultural runoff as key land based sources of pollution of Kenya's coastal zone. Lack of regulation of chemicals and fertilizers under the Act constitutes a gap in the law.
- The Fertilizer and Animal Food Stuffs Act Cap 345 of 1967, the Irrigation Act of 1966 (revised in 1988), the Public Health Act, Cap 242, the Pharmacy and Poisons Act Cap 244 and the Dangerous Drugs Act Cap 245 could be a powerful compliment to the EMCA, but they all need to be amended to provide for the reduction and elimination of pollutants.
- The Radiation Protection Act Cap 243 would compliment the EMCA if it is amended to expressly outlaw the discharge of radioactive substances into the environment.
- The Mining Act of 1940 (revised in 1987) outlaws the discharge of poisonous substances into waterways and recognizes the significance of mining impacts on the seabed and the exclusive economic zone. There are currently plans to overhaul the Mining Act and the Mining policy to ensure consistency with EMCA 1999 and the EIA and Audit Regulations of 2003.
- The Lakes and Rivers Act Cap 409 (revised in 1983) contains no provision specifically prohibiting pollution of rivers and lakes from land based sources. This Act needs to be amended so as to be in line with the provisions of section 42 of EMCA 1999.

### 2.2.3 *Institutional capacity*

#### **Government**

The Environmental Management and Co-ordination Act of 1999 (EMCA) establishes an elaborate institutional framework at all levels for promoting a policy of environmental governance in all sectors of the economy - including:

- An autonomous National Environment Management Authority (NEMA);
- The National Environmental Council (NEC),
- The Standards Review and Enforcement Committee;
- The Public Complaints Committee
- The National Environment Tribunal, and
- District and Provincial Environmental Committees.

The implementation of the Act by both NEMA and relevant lead agencies has been effective in certain areas but there have been certain limitations. These includes the fact that central or decentralised government agencies do not have adequate capacity to effectively guide and review EIAs and there is an urgent need to provide both capacity building and stop-gap solutions. The presence and activities of the East African Association for Impact Assessment (EAAIA – based in Nairobi) is positive as it encourages practitioners and officials to upgrade their skills and provides good opportunities for networking. However, EAAIA itself has limited capacity and more needs to be done to address capacity gaps. The Kenya Institute for Environmental Impact Assessors was established in 2005 by the government and private consultants in order to create a mechanism for self regulation in the industry. The institute is still in its infancy but there is expectation that it will raise competencies and ethics in the future.

Also, the implementation of the Fisheries Act to protect Kenya's marine and fishery resources from land based sources has been limited and the management of Marine Protected

Areas is inadequate. Fortunately, the ministry responsible for fisheries is supported by various institutions that contribute immensely through research and development activities. These include the Kenya Marine and Fisheries Research Institute, National Museums of Kenya, Coast Development Authority, national universities, among others.

The implementation of various other laws including the Water Act, has also faced certain limitations. Untreated sewerage and waste water still continue to be one of the principle sources of pollution of the Kenyan coastal zone, but it is expected that the 2006 Water Quality regulations would enable NEMA to improve its effectiveness in this regard.

The degradation of the Kenyan coastal zone, mostly because of inappropriate development and land-based activities shows that the Municipal Councils of Mombasa and Malindi are unable to effectively coordinate their functions with those of NEMA. The absence of a central sewerage system, frequent strikes by council workers, insufficient dumping sites and inadequate supervision complete a dismal picture of the state of Kenya's local authorities. Inadequate capacity at local level results in minimal input on matters of waste management by the District and Provincial Environmental Committees. These committees have been constituted and exist in both Mombasa and Malindi (among other coastal districts) but their members apparently do not appreciate fully the various sustainable development issues and financial problems are a major constraint. Most slum dwellers cannot afford to pay private companies hired by the councils to collect garbage or dispose/ treat waste water.

The input of other relevant lead agencies such as the Ministry of Health and the Ministry of Environment is limited and there is lack of an effective coordination between the council and other relevant stakeholders such as the private sector and hoteliers on matters of waste management. This makes planning and waste management difficult to achieve. Previous studies indicate that effluents from commercial and industrial enterprises along the coast are often discharged into the environment with no treatment.

### **Private sector**

Given the recent emphasis of EA in Kenya and the fact that the country is politically and economically influential in the WIO region, it is to be expected that indigenous EA expertise will have grown in recent years. Indeed, local universities offer good EA related courses and there is growing expertise in the EA sector. Kenya has a reputation for 'exporting' knowledge to other African nations and it is not uncommon to find Kenyan academics or technical experts in universities, schools, NGOs and consulting companies in the Region.

Moreover, recent changes in government and the gaining of prominence of environmental issues and personalities, seems to have encouraged Kenyans to become active in this sector.

A number of EA consulting companies (some with links to local universities) provide a range of services to local and international developers. In the case of larger or more 'complicated' EAs, local experts tend to form consortiums with international companies in order to do the work. This is common practice throughout the Region and is a good way to build expertise without compromising on quality. However, many local consultants still complain that Kenyans are readily overlooked and that foreigners still tend to undertake most of the more important jobs.

Civil society organizations (NGOs) are rapidly growing in number and influence in Kenya.. This is very encouraging as EA requires an atmosphere of open dialogue for it to be effective as a sustainable development planning tool.

#### **2.2.4 Conclusion and recommendations**

In common with most WIO countries, the key challenges that need to be addressed in Kenya include over-exploitation of the coastal zone, coastal resources degradation by over-exploitation, inadequate coordination between the various government agencies charged with coastal zone management and, therefore, poor implementation of a proper ICZM strategy and inadequate compliance with existing legislation to prevent degradation of the coastal zone. Limited institutional and financial capacity by local authorities and government agencies charged with various functions is a factor impeding proper management of coastal resources. However, Kenya is complying with some of its international obligations by established marine parks and marine reserves to protect the fragile and threatened habitats. NEMA is at the moment drafting specific enabling legislation on land based sources as mandated under EMCA 1999.

Fragmented sectoral laws such as the Local Government Act, Physical Planning Act, Public Health Act, Radiation Act, Petroleum Act, Forest Act 2005, Fisheries Act, Kenya Ports Authority Act, etc. do exist, which if properly implemented or amended to be in alignment with Kenya's international legal obligations, could mitigate the impacts of coastal degradation. Most of Kenya's legal instruments require some adjustments to ensure the closing of loopholes that still prevent effective enforcement. In particular:

- 1) Enactment of relevant regulations under EMCA that set clear standards regarding discharges of pollutants into air or soil.
- 2) Enactment and implementation of other legislation identified as lacking, such as a Living Resources Act, Marine Protected Areas legislation and ICZM legislation.
- 3) SEA needs to be given more prominence in the law and made obligatory for certain policies, plans and programmes so that guidance and evaluation of project-level EIAs is enhanced. Also, the procedure for implementing SEAs should be clarified in law.

There significant gaps and major improvements are needed if the laws are to be implemented effectively. Of particular concern are:

1. Inadequate enforcement of the provisions of the Environmental (Impact Assessment and Audit) Regulations 2003 to curb degradation of coastal habitats. There is an urgent need for strengthening all the institutions created under the EMCA. These include the Standards Enforcement and Review Committee that is supposed to promulgate the standards, guidelines and regulations on waste management matters as well as the District and Provincial committees that are responsible for the proper management and governance of the environment within the district and province and all technical officers of the municipal councils and the concerned ministries.
2. Inadequate capacity within municipal councils (see above). Key among these is local authorities as they are in charge of disposal of, and management of waste<sup>3</sup> and sewage. Important issues include:

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<sup>3</sup> In some cases, private sector entrepreneurs are investing in the creation of waste management facilities as business ventures. These will be regulated the NEMA

- a. Training the staff of key government parastatals involved in the implementation of statute laws relevant to matters of land based sources is also essential. These includes parastatals such as Kenya Ports Authority, Tana and Athi Rivers Development Authority (TARDA), Coast Development Authority (CDA), officers in line ministries such as local government, water, environment, fisheries, land, health to mention but a few.
  - b. More than 70% of Kenya's coastal population lives within 50 km of the coast line. Innovative approaches are required to deal with issues of domestic waste, litter, sewage, and municipal wastewater. There is need for the development of low cost environmentally sound sanitation and wastewater treatment systems, especially in the slums and informal settlement areas, where a majority of Kenya's coastal people reside.
  - c. The capacity of the Municipalities of Mombasa, Malindi, Kilifi and Lamu must be strengthened to enable them to oversee development that focuses on environmental quality of the coastal zone. Among environmental concerns that have so far been documented and which the councils must address immediately are developmental matters concerning implementation of the Physical Planning Act. Marine littering, ranging from plastic bottles, plastic paper, waste, old drums, fishing line to travel waste must also be addressed. Littering by curio stall owners most who have small kiosks and business establishments on the beaches is also an issue that must addressed by both the hotel owners and the councils that issue trade licenses.
3. Inadequate public awareness about environmental issues, the importance of the coastal and marine environments, and the links between these and human livelihoods and development need to be clearly understood.
  4. Creating partnerships is a major challenge in Kenya. Sustainable management of the coastal zone must involve a wide variety of stakeholders including the local people, investors and especially the hoteliers, local experts, NGO representatives, professional and research organizations, international finance institutions and potential donors, all of whom are prepared to work with each other and with government officials who are responsible for decision making. Government and local authorities will not achieve much unless the public is continuously consulted and engaged in decisions affecting on matters concerning the utilization and management of the resources in the coastal zone. EA processes could be used more as a mechanism for achieving such partnerships.

Whilst it is important to improve policies and laws, and to capacitate national and local institutions, there are a number of critical conditions that, if not addressed fully, will continue to undermine all efforts to achieve better management of coastal and marine environments and the use of EA. The most serious of these is poverty. There needs to be appreciate that degradation of marine resources and poverty are somehow critically linked. Reducing poverty can only be achieved through pro-poor national development strategies, eliminating corruption and ensuring that all available resources are directed towards sustainable development initiatives. Empowering the poor economically is pertinent to ensuring that they have access to safe and adequate sanitation systems that do not degrade coastal resources. Political will is however required to achieve this goal.

## 2.3 Madagascar

### 2.3.1 *National Vision*

The Constitution of the Republic of Madagascar was passed on 19<sup>th</sup> August 1992. In relation to the environment, Article 39 states that “*Everyone shall have the duty to respect the environment; the State shall ensure its protection.*”<sup>4</sup>

The concept of sustainable development underpins all the environmental policy and legal documents and Decree No 2004-167 relating to ‘*Mise en Compatibilité des Investissements avec l’Environnement*’ (MECIE) is founded on the premise of sustainable development recognising the needs of the present, while safeguarding the needs of future generations (Walmsley and Tshipala 2007). The three objectives of sustainable development to be achieved include: (1) Maintenance of ecological integrity;(2) Improvement of economic efficiency; and (3) Improvement of social equity.<sup>5</sup>

### 2.3.2 *EA legislation*

The *Charte de l’Environnement* was promulgated as Law 90-033 on 21<sup>st</sup> December 1990 and amended by Laws No 97-012 of 6<sup>th</sup> June 1997 and No 2004-015 of 19<sup>th</sup> August 2004. Article 10 makes provision for EIAs by stating that all public or private investment projects which may have an impact on the environment must undertake an impact study, taking into account the technical nature, the scale and magnitude of the project, as well as the sensitivity of the receiving environment. Investment projects submitted for authorisation or approval by an administrative authority are equally required to be subjected to an EIA under the same conditions as other projects<sup>6</sup> (Walmsley and K Tshipala 2007).

The Decree of 1999 introduced new articles relating to EIA, the Programme of Environmental Engagement (PREE), permitting and approval processes, the establishment of the *Comité Technique d’Environnement* (CTE) and the lists of projects which require either an EIA or PREE, and the scale of review fees required by the *Office National de l’Environnement* (ONE). The latest Decree of 2004 specifies the roles and responsibilities of ONE and other organisations responsible for EIA.

In terms of Article 27 of MECIE 2004, an **Environmental Permit** will be granted by ONE on the basis of the environmental review of the EIA, a public evaluation report and technical advice from the CTE. The Environmental Permit will be inserted into all applications, approvals and agreements for all construction works projects.

Projects which only require a PREE, receive an Environmental Agreement or a Certificate of Conformance from the Environmental Unit in the responsible sector ministry.

An EIA is defined in Article 2 of MECIE as “*a study which consists of scientific analysis and prediction of potential impacts of an activity on the environment, and the examination of the acceptability of their significance, as well as the mitigation measures proposed to ensure environmental integrity, within the limits of best available technology at an acceptable cost*”.

The aims of the EIA are identified as being:

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<sup>4</sup> [www.expired.oefre.unibe.ch/law/](http://www.expired.oefre.unibe.ch/law/)

<sup>5</sup> *Presentation du Decret MECIE* on [www.pnae.mg](http://www.pnae.mg)

<sup>6</sup> Op. Cit. Footnote 2.

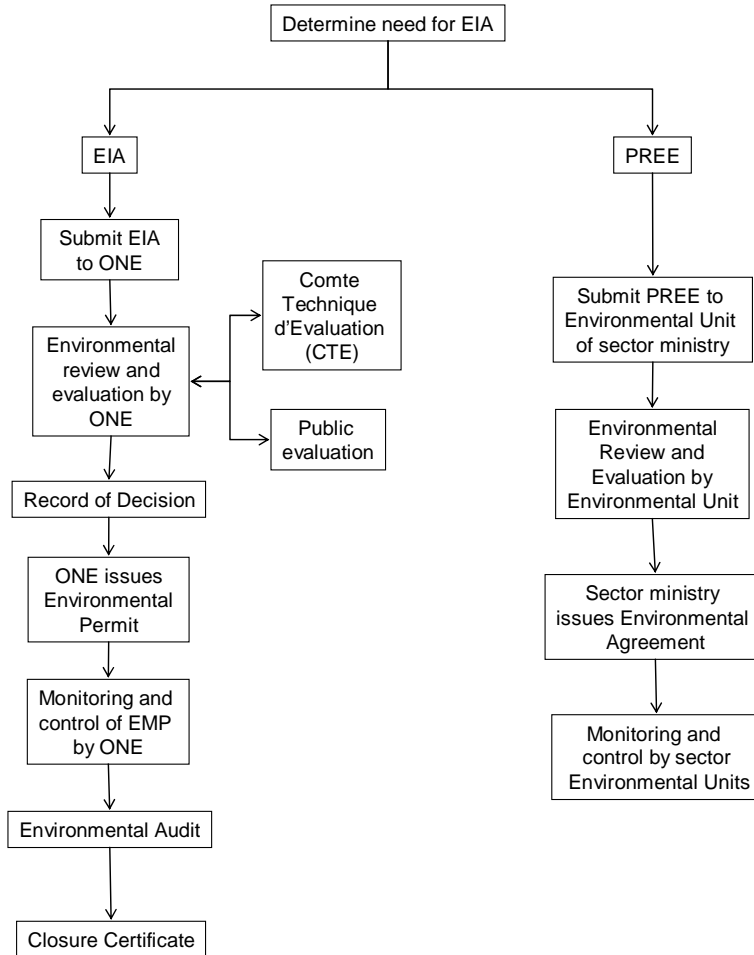
- A tool to ensure the optimal integration of environmental considerations and the best utilisation of resources and land;
- To take environmental issues into account at all phases of the project life cycle, from conception through implementation, operations to closure;
- A tool to predict and determine the positive and negative ecological and social consequences of a project;
- To identify measures to mitigate or compensate for the negative impacts;
- To identify alternatives or variations to the project which may be less damaging to the environment and which satisfy the project objectives, as well as the interests of all parties concerned;
- To take into account the opinions, reactions and interests of all parties concerned, in particular those individuals and communities within the project area.<sup>7</sup> (Walmsley and K Tshipala 2007)

The public or private investment projects which require an EIA are set out in Article 4 and Annex I of MECIE . An EIA is mandatory for:

- All developments, construction and works which could affect sensitive environments as defined in Order No 4355/97. A sensitive area may include: coral reefs, mangroves, islets, tropical forests, zones subject to erosion, arid and semi-arid areas susceptible to desertification, conservation areas, swamps, wetlands, reference sites for protected species, areas of archaeological or historical interest and zones around important water sources;
- The types of developments listed in Annex I;
- Any other activity, which by its nature, size and scale could cause a negative impact on the environment and not listed in Annex I.

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<sup>7</sup> Para 1.1 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.



**Figure 3: EIA process flowchart for Madagascar** (Walmsley and Tshipala 2007)

The “*Directive Generale pour la Realisation d’une Etude d’Impact Environnemental à Madagascar*” sets out in detail the form and content of an EIA – which is comparable to what is expected in most countries in the world. The EIA must be undertaken according to the following steps:

**Context of the project:** Details of the proponent including environmental and sustainable development policies, name of the company undertaking the EIA, overview of the project and its location and a detailed motivation and justification for the project, including the major opportunities and constraints.<sup>8</sup>

**Technical description of the project:** Detailed description of each project phase and associated activities. The description should include: the proposed use of natural resources, methods of exploitation and treatment, production rates, pollution and emissions expected, taking into account the environmental standards being applied.

**Description of the receiving environment:** Description of the baseline receiving environment in the zone of influence of the project. The environment includes the physical,

<sup>8</sup> Para 2.1 of the *Directive Generale pour la Realisation d’une Etude d’Impact Environnemental à Madagascar*.

biological, social, economic and cultural elements. The study must also be placed into the context of spatial planning initiatives, policies and other schemes and developments.<sup>9</sup>

**Alternatives analysis:** The objective of this step is to demonstrate that the project as proposed is the best option of all possible alternatives, from a technical, economic and environmental perspective. To this end, the EIA should include a detailed assessment of all site, route and design alternatives and provide a justification for the preferred options on the basis of an objective assessment of each.<sup>10</sup>

**Analysis of impacts:** This chapter must identify potential impacts on the receiving environment for each activity for each project stage; evaluate the impacts, identify mitigation measures to prevent, suppress or reduce negative impacts or to maximise the benefits of the project on the environment.

**Risk assessment:** The EIA must include a risk assessment, especially for heavy industrial and infrastructure projects where there is a risk of accidents which could pose a danger to environmental quality and human health. In these instances, the EIA report must identify the risks and present a detailed emergency plan to deal with each risk.<sup>11</sup>

**Project synthesis:** This chapter must present a synthesis of the project after all mitigation and compensation measures have been applied, detailing the residual impacts.<sup>12</sup>

**Environmental Management Plan (EMP):** The EMP or *Programme Gestion Environnemental du Projet (PGEP)* provides an environmental monitoring and follow-up programme which must be implemented during each phase of the project life-cycle. This section of the EIA forms the basis of the Record of Decision (*Cahier des Charges Environnementales*) (Walmsley and K Tshipala 2007).

It is expected that the monitoring programme will be revised periodically based on the effectiveness of the mitigation measures after implementation of the project.

The follow-up programme aims to validate the impact predictions made in the EIA and to assess environmental performance of the project and the effectiveness of the mitigation measures.<sup>13</sup>

There are a number of legal instruments and tools which support the operation of MECIE. These are listed below:

- Order No 4355/97 of 13<sup>th</sup> May 1997 regarding the designation of sensitive zones;
- Order No 6830/2001 of 28<sup>th</sup> June 2001 setting out the procedures and methods of public participation in EIA;
- Order No 18 732 of 27<sup>th</sup> September 2004 setting out the definition and delimitation of sensitive forest areas;
- Order No 19 560 of 18<sup>th</sup> October 2004 suspending the granting of mining permits and forestry permits in areas reserved for conservation;

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<sup>9</sup> Detailed lists of factors to consider in the environmental description are included in Annex 2 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.

<sup>10</sup> Para 2.4 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.

<sup>11</sup> Para 2.6 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.

<sup>12</sup> Para 2.7 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.

<sup>13</sup> Para 2.8 of the *Directive Generale pour la Realisation d'une Etude d'Impact Environnemental à Madagascar*.

- Inter-ministerial Order 6941/2000 of 11<sup>th</sup> July 2000 setting the limits for exhaust emissions from vehicles;
- Inter-ministerial Order 12032/2000 of 6<sup>th</sup> November 2000 regarding the regulation of the mining sector and matters of environmental protection.<sup>14</sup>

Meanwhile a guide for local authorities in public participation in EIA, and a guide for environmental follow-up are currently in draft. Madagascar also has a number of sector EIA guidelines for: tourism, roads, aquaculture, on- and off-shore petroleum developments, textiles, forestry, mines, wetlands and sensitive areas (Walmsley and K Tshipala 2007).

Important strengths of the Madagascar environmental legislation include:

- Specific regulations pertaining to EIA
- Regular updates of the legislation have taken place (1995, 1999 and 2004)
- Explicit requirement for public participation.

Some of the weaknesses apparent in Decree MECIE (Decree n° 99-954 of December 15 1999 as modified and complimented by the Decree n°2004-167 of February 3, 2004) include:

- No differentiation between SEA and EIA
- No explicit provision for scoping – this means that EIA processes are often not focussed
- No pollution (discharge) standards
- No indication of what scale of development requires an EIA and what does not.
- No clarity on consequences of violations or non compliance
- No mechanism for monitoring and review of conditions of approval.
- No certification system for practitioners.

### 2.3.3 *Institutional capacity*

#### **Government**

Madagascar has a Ministry of Environment that is responsible for the development and coordination of environmental policies and legislation, as well as their implementation. Within the ministry there is a specific EIA Unit that guides and reviews EIA studies and that reviews completed EIA reports. A strength of the Madagascar system is the fact that other line ministries are also required to have an ‘environment desk’. This serves the purpose of spreading the load of environment decision making across many different ministries and building an ‘environmental consciousness’ in various sectors. On the negative side, it also results in dilution of expertise and might reduce the required critical mass in the environment agency.

The requirement in the Madagascar Constitution that management of public resources (including land) be decentralized to regions, presents enormous challenges to already thinly-spread environmental expertise. As a consequence, the implementation of environmental policies and laws is generally inadequate, both at central level and in the regions.

#### **Private sector**

There is generally a low-level of prioritization of environmental issues and EA in Madagascar aims at addressing the apparent lack of concern about environmental degradation

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<sup>14</sup> Op. Cit. Footnote 2.

and the need for improved management. However, there has been a recent trend for concerned citizens to form environmental interest groups (NGOs) which are becoming more vocal about environmental issues. Some include relatively well educated people with environmental knowledge. Unfortunately, collaboration between the NGOs is poor at present and there are concerns that they are not adequately involved in EA processes.

#### **2.3.4 Conclusion and recommendations**

In order to address environmental impacts of development, be they local or transboundary in nature, the government of Madagascar needs to improve its legislative framework, strengthen its institutions and provide an enabling environment that encourages the constructive involvement of the private sector and civil society in development planning and environmental decision making.

Current legislation is regarded as weak and in need of major revisions. Suggestions for improvement include:

- a specific chapter on the integrated management of the coastal zone
- updated provisions regarding EA including:
  - the need for SEA
  - explicit requirements for scoping
  - appropriate clauses that:
    - i. define minimum education and experience criteria for EA practitioners;
    - ii. enable the authorities to commission external reviews of EAs at the proponent's expense; and
    - iii. more stringent penalties for non-compliance.

Moreover, the EIA legislation is not well publicised. There is a strong need for wide dissemination and awareness-building of the law and its provisions and about environmental issues in general.

Inadequate application and enforcement of EIA laws is common in Madagascar and particular attention should be placed on compliance and enforcement. Because of inadequate capacity within government agencies responsible for environment, the problem of limited implementation remains a major obstacle in the application of the various laws and regulations.

Instead, there needs to be a concerted effort to improve the status of the Ministry of Environment (and the EIA Unit) and to build the capacity of its staff. Also, the capacity of environment offices in other sector ministries needs to be improved. Even so, capacity should not only mean more and better qualified government officials. Since environment is a cross-cutting theme, capacity should also be defined as improved awareness and competence in the private sector and civil society, and the willingness of government to engage all sectors of society in decision making. Thus, capacity also means the commitment to, and ability to demonstrate, good governance. The government of Madagascar will only achieve the desired level of environmental protection when it (in order of priority):

- Raises the political profile of the environment and shows a better understanding of the links between environment, livelihoods and sustainable development;
- Builds partnerships with internal and external stakeholders that share a common interest in pursuing the achievement of sustainable development, including civil society and the private sector;

- Supports emerging environment NGOs and helps them to access both public and donor funds. A strong environment NGO sector could assist the government to fulfil its Constitutional obligations and mandate;
- Undertakes legislative reform;
- Strengthens its environment agencies (especially the EA unit), improving the quality of their staff and enabling them to utilise outside assistance in achieving quality control.

Once the above are achieved, developers will begin to take ‘environment’ seriously and they will be more diligent in commissioning EAs for their projects and for implementing Environmental Management Plans. This in turn will be an incentive for EA practitioners to provide better professional services and for young people to see environment as a viable profession. Moreover, civil society will be more willing to invest time and resources in becoming involved in decision making processes.

## 2.4 Mauritius

### 2.4.1 *National Vision*

The constitution of Mauritius lacks specific provisions on environmental governance of natural resources. The right to a clean environment can only perhaps be inferred from the human rights provisions of the constitution, and particularly the right to life.

In 1990 the Government of Mauritius approved the National Environmental Policy which aims to foster harmony between quality of life, environmental protection and sustainable development for present and future generations. The Government recognises that a high quality environment is essential for the sustained development of the country and for the health and welfare of its people. This principle has been the driving force behind several institutional, legislative and policy changes.

The Prime Minister reaffirmed the commitment in his foreword to the State of the environment address at the 1992 United Nations Conference on Environment and Development in Rio:

*My government is committed: (a) to care for the natural environment; (b) to protect the health and welfare of Mauritians; and (c) to preserve quality of our national and international commons. ... Mauritians, by their nature as well as because of their cultural heritage, have a greater appreciation of the linkages between environment, economic development, quality of life, social and cultural values, economic, commercial, business and governmental decision-making. It is for this purpose that we must work together to achieve sustainable development, and prepare for a prosperous future based on a healthy environment.*

More recently, *Vision 2020: The national long-term perspective study* further strengthens this commitment to the vision of sustainable development by observing that –

*Our physical environment sets the boundaries in which we live. In Mauritius its quality is high – but vulnerable. We need to protect and enhance it, both for ourselves and for generations to come.*

#### 2.4.2 **EA legislation**

The Mauritius Environmental Law is scattered in various sectoral laws. The first environment law was the Environment Protection Act (EPA) 1991 which was later repealed and replaced by EPA 2002 and recently amended by GN57/05 in order to incorporate the principles of several international Conventions related to the environment. Section 2 of EPA 2002 states that “*every person in Mauritius shall use his best endeavours to preserve and enhance the quality of life by carrying responsibility for the natural environment of Mauritius*”.

The following principles are reinforced in the EPA 2002: the concept of environmental stewardship; the “*polluter pays principle*,” the requirement of environmental impact assessments for major scheduled activities; public participation; and the right to environmental information.

The Environmental law embodies all Acts and Regulations as well as any order, notice, requirements imposed under EPA 2002. It also extends to any other enactment which the Minister of Environment may by regulations declare (with approval of the National Environment Commission as established under Section 5 of EPA 2002) to be an environmental law.

Section 9 the EPA confers powers on the “Police de l’Environnement’ to act as a watchdog for the protection and preservation of the environment. The Act reinforces and gives more power to the enforcing agencies and in so doing decentralized the enforcement of environmental laws in Mauritius and Rodrigues.

Section 89 of EPA 2002 gives power to the Minister to set out the standard of water, effluent, air, noise, hazardous waste, non hazardous waste, pesticides residues, odours and eyesores respectively. It also set up the Environmental Appeal Tribunal and its jurisdiction. The Director of the Environment is given power to issue programme notice, enforcement notice, prohibition notice and stop order to enforce environmental laws. Fines under the EPA have increased and the term of imprisonment is provided. The fine varies from Rs 50,000 up to Rs 100,000 and the imprisonment from 2 years to 8 years.

Another major evolution in the field of environmental law is that under GN 25 of 2005, all existing laws related to building, land development, forestry, rivers, fisheries, fauna and flora of Mauritius have been declared environmental laws.

The Environment Protection Act, No. 19 of 2002 provides for a licensing regime which requires either preliminary environmental report approval or an EIA licence for various activities – ranging from minor activities to strategic developments.

The Act identifies (in Part A of Schedule 1) categories of minor activities – for example, common undertakings such as livestock rearing and discotheques – that require a preliminary environmental report, which is a simplified, short form of an EIA. Major undertakings that may impact significantly on the environment (specified in Part B of Schedule 1) require a full impact assessment and an EIA licence. If a proposed activity is not listed in either schedule, but it is deemed to be potentially harmful to the environment, then the minister may still require the proponent to undertake an appropriate level of assessment (i.e. either a PER or a full EIA). In the case of government projects that are of national interest and that are urgently required, the Minister may declare such an activity as an exempt undertaking. This does not

mean that there will not be an EIA, but rather that the full range of procedures (e.g. public disclosure) need not be followed.

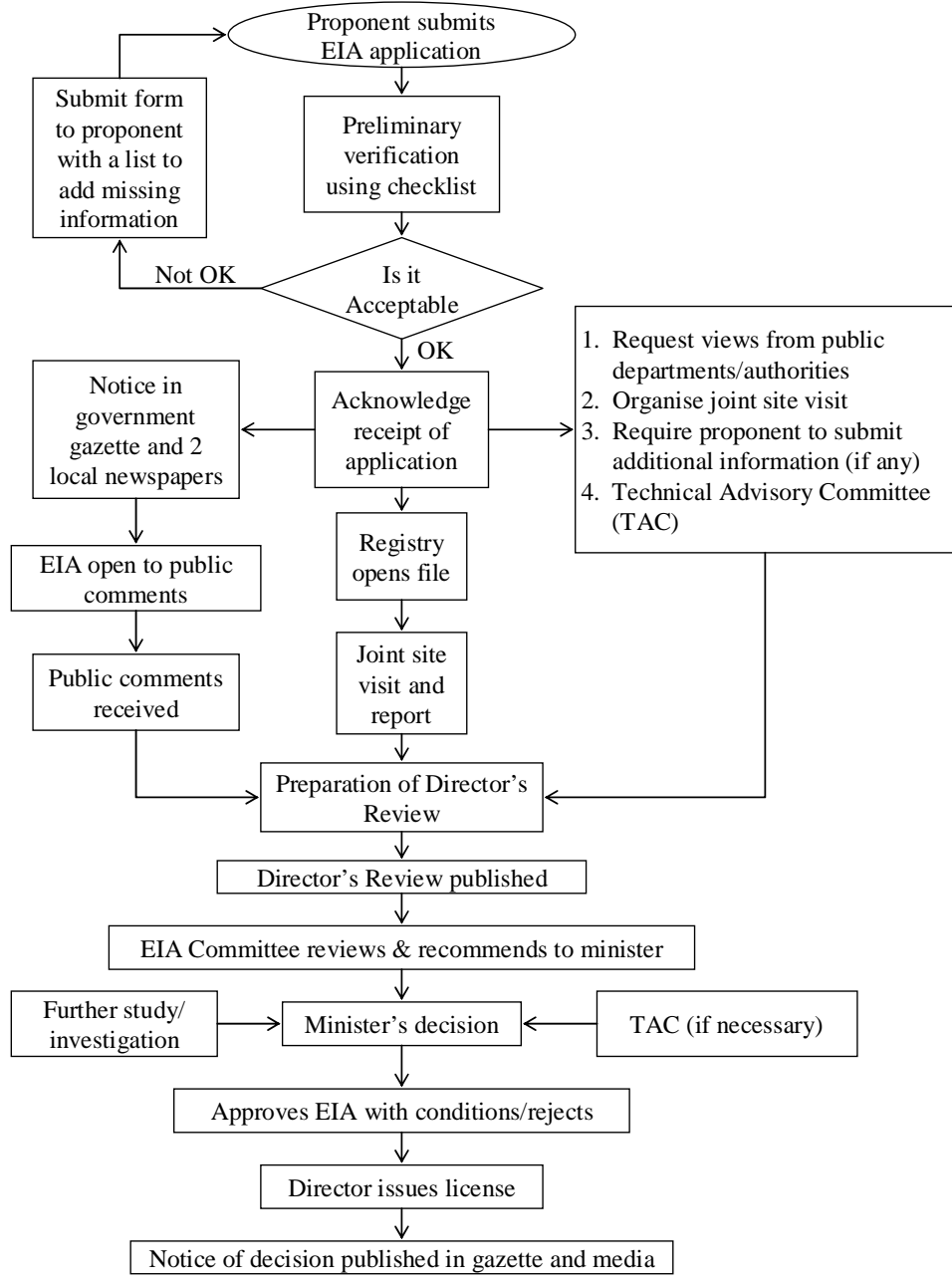
Part IV of the EPA provides guidelines on the content of an EIA report. Part VI of the EPA provides for the issuing of standards and guidelines relating to water, effluents, air, noise, waste, pesticides, odour, radioactive emissions, and built-up environments and landscape. The Act also introduces strict time limits to the different stages in processing an application for an EIA licence, and clarifies the position regarding the provision for exempt activities. Finally, the Act stipulates that any EIA licence will lapse if the project is not implemented within two years from the date of issue.

The concept of strategic environmental assessments (SEAs) has been introduced in the Act though it has only been alluded to in Schedule 1 of the Act. No further mention or definition is made in the body of the Act leaving considerable room for interpretation. Schedule 1 of the Act lists activities which require an SEA. These include major plans and programmes, such as master plans, solid-waste management plans, water management plans and the National Physical Development Plan. However, there is concern that SEAs are not defined, nor is their role and function stated; further, no information is given on who should conduct them and no specifications are provided on their legal applications.

The EIA process itself (see figure 4) requires a strong level of inter-ministerial collaboration and information sharing within the committee and staff involved in the EIA process.

The EIA process, as legislated in the EPA, requires that –

- at the inception stage, i.e. at least three months before submitting the application for an EIA licence, the project developer must inform the Director of the Department of Environment through an outline of the proposed undertaking, including the location, nature and scope of the project
- a copy of the project document is sent to all ministries likely to be involved in evaluating the project
- the Ministry of Environment arranges a joint site visit with the EIA committee, the consultants and the project developers
- the Director then imposes the terms of reference for the EIA report, the fields of study that must be covered, and the levels of expertise and the qualifications of the consultants to sign the report
- the EIA report is submitted to the Department of Environment and made available for public inspection
- the Ministry requests any additional information from the developer, if necessary
- the Director of Environment reviews the application and submits it to the EIA Committee, which examines the application and advises the Minister whether or not to grant an EIA licence and the conditions attached.



**Figure 4: EA process in Mauritius**

Once the Minister of Environment receives all the relevant information from the EIA Committee, the Minister can take the decision to grant the EIA licence. However, an appeal can be lodged against any of the Minister's decisions relating to the granting, refusal, conditions relating to these, and enforcement of preliminary environmental reports and EIAs with the Environment Appeal Tribunal. The appeal should be lodged within 30 days of the decision. The Tribunal consists of a Chairman – a barrister at law of not less than ten-years standing and appointed by the Public Service Commission – as well as other members appointed by the Minister, with at least three years' experience in a field related to the protection and management of the environment. The decision taken by the Tribunal will be

communicated to the Minister. In addition, if any objection on a point of law does exist in the judgment of the Tribunal, an appeal can be made through the Supreme Court.

In total, 45 cases have been appealed through the Tribunal between its inception in 1994 and December 2000. The most notable case of 'environmental principles' being defended was that involving Tokay Island.

### 2.4.3 *Institutional capacity*

#### **Government**

The Ministry of Environment was created in 1992 following the promulgation of the Environment Protection Act (EPA). The EPA emphasises the need for co-ordination of environmental matters through an administrative framework, which includes the National Environment Commission chaired by the Prime Minister.

The Ministry of Environment has established an EIA Committee<sup>15</sup> to examine applications for an EIA licence referred to it after review by the Director of Environment. An Environment Coordination Committee<sup>16</sup> which advises the Minister on any matter relating to the protection and management of the environment, including national environmental standards, the process of application for the EIA licence and the review of the EIA is also constituted under the EPA. The Environment Coordination Committee is also the agency responsible for enforcing compliance with EIA legislation. The EIA Division is staffed by a technical cadre but the increased workload requires at least a doubling of the staff contingent.

Since the EIA Division is supported by the various laboratories and ministries responsible for the different components of the EIA it has only limited need for equipment. Laboratory support is adequate but the EIA Division is understaffed and requires at least 12 technicians. Staff require formal training to enable them to, for example, draft terms of reference and direct the contents of EIAs, develop sectoral guidelines, review EIA documents, prepare strategic environmental assessments and undertake environmental monitoring and management.

The EIA Division is also involved in other tasks related to environmental issues. An example is providing assistance to local authorities in issuing development permits for projects which are not listed in the First Schedule of the EPA and, therefore, do not require an EIA but which are associated with environmental nuisances. In order to facilitate environmentally sound development, the Division has drafted a series of 28 thematic guidelines (e.g. bakeries, poultry farms, filling stations) that provide developers with best practice advice. It is expected that proponents will exercise self-adherence using these guidelines as a framework.

The staffing situation is more or less stable. The EIA Division is funded entirely through the government budget and does not raise any revenue by, for example, charging for the granting of EIA licences.

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<sup>15</sup> Members are the Permanent Secretary of the Ministry of Environment (Chairperson), Director of the Department of Environment (no vote) and the Permanent Secretaries or their representatives of the Ministries of Agriculture, Fisheries and Marine Resources, Health, Industry, Local Government, and Public Infrastructure, and representatives of the Town and Country Planning, the Water Resources, and the Waste Water Management authorities.

<sup>16</sup> Members are the Permanent Secretary of the Ministry of Environment (Chairperson), the Director (Vice-Chairperson), the Permanent Secretaries, or the Executive Directors or their representatives from the enforcing agencies, the Environmental Liaison Officer, and other such public officers, or officers of statutory bodies, designated by the Minister.

There is a general inadequacy of resources, including availability of trained officials, to carry out the functions assigned to the enforcement authorities. It is generally felt in Government circles and in the Ministry of Environment that the EIA administration cannot be decentralised or outsourced. Nevertheless, the 2007/08 budget has made provision for a fund that will enable the government to hire outside consultants in fields where there is no local expertise. In order to enhance transparency, EIA reports are made available to the public in printed form or on websites. Hard copy reports are usually available for public perusal in certain localities (e.g. municipal offices and district councils).

A skeletal post-EIA Monitoring Unit exists, which follows up on compliance with the conditions under which the EIA certificate is issued. During the period 1 January to 30 November 2002, 315 sites were visited for post-EIA monitoring. Additionally, the Ministry received 1,536 complaints during the same period, of which 1469 were attended to and resolved. The limitations in the enforcement of environmental laws has been a problem. This has been due to a shortage of staff, as well as due to other coordination weaknesses in the enforcement institutions. To remedy this situation the Ministry of Environment, in collaboration with the Mauritius Police Force, created the *Police de l'Environnement* on 1 December 2000. This unit comprises 15–18 Police Officers under the charge of an Inspector. The mission of this unit is the protection of the environment through enforcing environment legislation and assisting the Ministry of Environment and other enforcing agencies in their work.

To date the *Police de l'Environnement* has established over 8,400 contraventions particularly in the context of littering, noise, illegal dumping; nearly 6,000 notices have been issued to drivers of smoking vehicles. The unit has also organised a series of seminars and awareness campaigns to inform other police divisions.

In addition to the Ministry of Environment, other government institutions play important roles in various aspects of environmental management. The Ministry of Agro-Industry and Fisheries ensures the sustainable development and management of fisheries resources, conservation and protection of living aquatic resources and the marine environment.

### **Private sector**

The current EIA process has no provision for the accreditation and qualifications of EIA practitioners, except as may be decided on a case-by-case basis (Part IV 15(4) of EPA 2002). No register of Environmental Consultants entitled to prepare an EIA exists making it possible for any company or individual to undertake a study. At present a wide range of people and firms undertake EIAs and although they are mostly Mauritian, some expatriate consultants are also involved.

The Environment Protection Amendment Bill proposed to rectify the situation through the following clauses –

- *No person other than an environment consultant shall prepare an EIA for a proponent or offer his services to him as being qualified to prepare an EIA.*
- and
- *The Director shall keep a register of environment consultants open for inspection to the public in which shall be entered –*
  - *the names and address of the person, firm and bodies corporate proposing their services for the preparation of EIA reports, and*

- *their professional qualification and experience.*

#### 2.4.4 **Conclusion and recommendations**

Mauritius has a significantly more advanced legislative and institutional setup than most other WIO countries and there is also a history of reasonably good EA practice. However, some improvements are required to more effectively address environmental impacts of development, be they local or transboundary in nature

In terms of **legislation**, the following is recommended:

- The current Act need to provide an explicit mechanism that allows the Ministry to commission external reviews and to force proponents to pay for such reviews. This is in line with the *polluter-pays* principle and is effective in various other countries.
- SEA needs to be made obligatory for certain policies, plans and programmes so that guidance and evaluation of project-level EIAs is enhanced. Also, the procedure for implementing SEAs should be clarified in law.

In terms of **institutional issues**, more attention should be placed on compliance, enforcement and monitoring. The government needs to improve the status of the Ministry of Environment and to build the capacity of its staff. Even so, capacity should not only mean more and better qualified government officials. Since environment is a cross-cutting theme, capacity should also be defined as improved awareness and competence in the private sector and civil society, and the willingness of government to engage all sectors of society in decision making. Thus, capacity also means the commitment to good governance. Mauritius will only achieve the desired level of environmental protection when it (in order of priority):

- Raises the political profile of the environment and shows a better understanding of the links between environment, livelihoods and sustainable development;
- Builds partnerships with internal and external stakeholders that share a common interest in pursuing the achievement of sustainable development, including civil society and the private sector;
- Strengthens its environment agencies by improving the quality of their staff and enabling them to utilise outside assistance in achieving quality control;
- Builds capacity of government agencies (all relevant ministries) and parastatals. A range of training courses needs to be provided to the above target audience as soon as possible, and
- Set qualification criteria and a code of conduct for environmental practitioners (this should be done in consultation with the practitioners themselves).

## 2.5 **Mozambique**

### 2.5.1 **National Vision**

The Constitution of the Republic of Mozambique (2004) addresses matters relating to environment and quality of life in its articles 90 and 117. Article 90, which is part of Chapter V (economic, social and cultural rights and duties) of Title III (fundamental rights, duties and liberties) provides humans the right to live in a balanced environment, and commits “*the State and local authorities, in collaboration with other appropriate partners, to adopt policies for the protection of the environment and care for the rational utilization of all natural resources*”.

Article 98 deals with State Property and public domain and establishes that natural resources situated in the soil and on the subsoil, the internal waters, in the sea, in the continental shelf, and in the exclusive economic zone are property of the State. In paragraph 2 of the same article items constituting the public domain of the State are listed, some of them being (a) the maritime zone; (d) zones of the nature protection; (e) the hydraulic potential and the natural deposits of minerals.

Article 102 specifies that the State shall determine how natural resources may be exploited so that both human wellbeing and national interests will be safeguarded. Article 117 of the Constitution goes further by stipulating that the State is responsible for promoting initiatives that ensure ecological balance and the conservation of the environment for improving the quality of life of the citizens (paragraph 1). According to paragraph 2 of this article, the State shall adopt policies aiming at:

- preventing and controlling pollution and erosion;
- integrating environmental objectives in sector policies;
- promoting the integration of environmental values in educational policies and programmes, and
- ensuring the rational utilization of natural resources within their capacity to regenerate and maintain ecological stability and bearing in mind the rights of future generations.

As a developing country, Mozambique's vision is focused primarily on poverty reduction and rapid economic growth on a sustainable long-term basis (GRM 2000). The adoption of sound policies and laws relating to land, the environment, forestry, wildlife and coastal resources, for example, has provided a solid basis for improving environmental planning and natural resource management. The fundamental challenge remains to translate these good intentions into practice. Elevating the political status of the relevant government agencies, and enhancing their capacity, is central to the effective implementation of these provisions. The systematic development of legislation and regulations regarding EIA, and the country's improving capacity to implement the EIA process, reflects one significant positive step towards meeting this challenge.

### **2.5.2 EA legislation**

The existing legislation in Mozambique includes a great deal of the former colonial legislation and laws enacted after independence, with the latter gradually replacing the former. Some pre-independence legislation deserves special mention, especially laws passed by the Transitional Government, which tried to ensure harmony between social and economic issues during the transitional period. No legal instrument regarding matters relating to environment was enacted by the Transitional Government.

Mozambique inherited from the colonial power, the Roman-Germanic legal system that has a cascade of legal instruments. Below is a summary showing the hierarchy of various laws with the State bodies competent for enacting them. The Constitution has the highest status.

**Table 1: Hierarchy of various laws and implementing agencies**

<b>RANK</b>	<b>INSTRUMENTS</b>	<b>ENACTING ORGAN</b>
I	Constitution (Constituição)	Assembly of the Republic (Parliament)
II	Law (Lei)	Assembly of the Republic
III	Decree-Law (Decreto-Lei)	Council of Ministers
IV	Decree (Decreto)	Council of Ministers
V	Presidential Decree (Decreto Presidencial)	President of Republic
VI	Ministerial Regulation (Diploma Ministerial) <sup>17</sup>	Ministry or Ministries, jointly
VII	Ministerial Order (Despacho)	Minister

In the early 1990s it was recognised that many of Mozambique's policies and laws relating to environmental protection and natural resources management were outdated. Following the creation of the National Environmental Commission (NEC) in 1990, environmental issues began to receive an increasingly higher profile. In an effort to ensure sustainable development in its drive for economic growth, the Government created the Ministério para a Coordenação da Acção Ambiental<sup>18</sup> (MICOA) shortly after the holding of the first election in 1994.

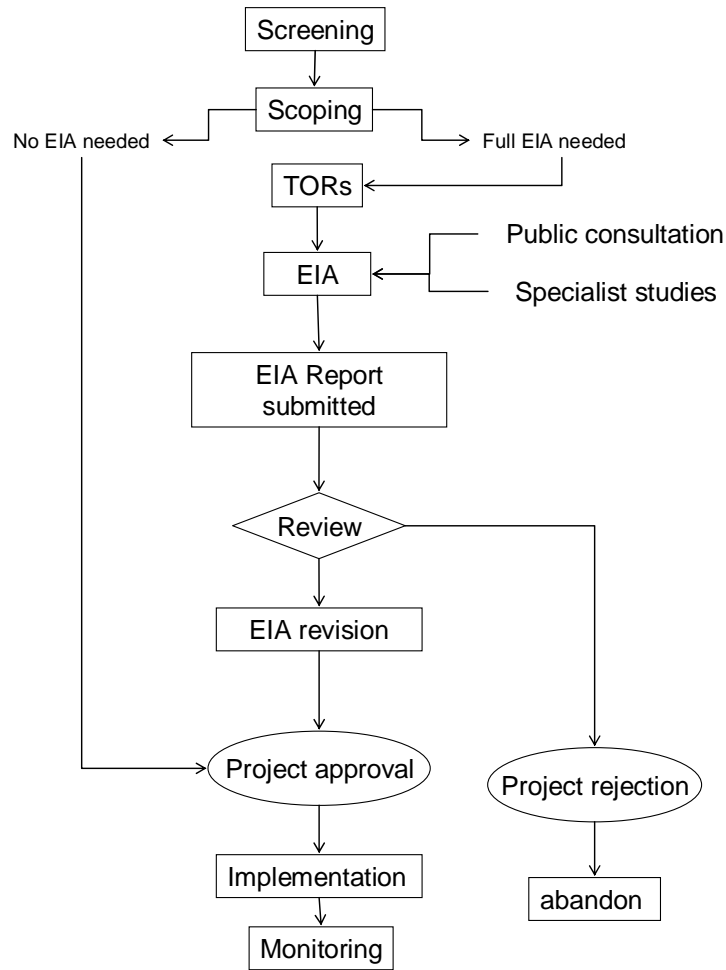
Since 1994, MICOA has developed a legal framework for environmental management, with the following the essential elements:

- National Environmental Management Programme (MICOA 1996)
- Framework Environmental Act (No. 20 of 1997)
- EIA Regulations (Decree No. 76 of 1998)
- EIA guidelines (in preparation)

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<sup>17</sup> Equivalent to Ministerial Regulations, then enacted by Portuguese Ministers were "*portarias*", and were made applicable to Portuguese colonies, including Mozambique.

<sup>18</sup> Ministry for the Coordination of Environmental Affairs.



**Figure 5: EA process in Mozambique (SAIEA 2003)**

In addition to the formulation of environmental policies, laws and regulations, other important legal instruments that contribute to improved environmental management include the Land Act (No. 19 of 1997) and the Forestry and Wildlife Act (No. 10 of 1999).

**Law n° 20/97, of 1 October – Environment Law (*Lei do Ambiente*)** is the foundation to the whole set of legal instruments regarding the preservation of the environment. This Law establishes general provisions but does not include any specific provision for EIA. Nonetheless, as an umbrella law for environmental matters it is an important instrument for the enactment of specific regulations.

The Framework Environmental Act establishes the regime of environmental licensing based on an EIA. Decree No. 76/98 of 29 December 1998 defines the EIA Regulations (comprising 19 Articles). Key articles in the regulation are as follows:

- *Article 2* specifies the range of development projects requiring some form of EA, and is applicable to all public or private activities that may have a direct or indirect impact on the environment.

- *Article 3* defines MICOA’s responsibilities to issue and publicise general directives on EIA procedures, approve the terms of reference, review EIAs and issue environmental licences.
- *Article 4* specifies document requirements. To begin an EIA the proponent must present to MICOA a description of the activity, an executive summary of the project and the salient environmental and socio-economic features of the project location.
- *Article 5* defines pre-assessment procedures. All activities not covered in the Appendix of the EIA Regulations but capable of causing significant environmental impact is subject to a pre-assessment by MICOA to determine the level of EIA required.
- *Article 6* defines the content of an EIA, which must contain at least the following:
  1. Geographical location of the area of influence of the activity, as well as a description of the baseline environmental situation
  2. A description of the activity and its alternatives in the planning, construction, operation and, in the case of a temporary activity, decommissioning phases
  3. A comparison of the alternatives and a prediction of the environmental impacts of each alternative
  4. Identification and assessment of mitigation measures
  5. An environmental management programme which includes the monitoring of impacts, and accident prevention and contingency plans
  6. A non-technical summary covering the main issues and conclusions for purposes of public consultation, and
  7. Identification of the team that carried out the study.
- *Article 7* defines the public consultation process.
- *Article 8* establishes the criteria for assessing a proposed activity. These are:
  1. The number of persons and communities affected
  2. The ecosystems, plants and animals affected
  3. The location and size of the area affected
  4. The duration and intensity of the impact
  5. The direct, indirect, potential, overall and cumulative effects of the impact, and
  6. The reversibility or otherwise of the impact.
- *Article 9* defines the review process.

The Regulation on the Process of Environmental Impact Evaluation, approved by Decree n° 45/2004, of 29 of September 2004, replaces Decree 76/ 79 of 29 of December 1979. In its article 1 the Regulation defines a number of concepts, such as activity, area of influence, evaluation of the environmental impact, public consultation, sustainable development, pre-feasibility study, measures of mitigation, environmental management plan etc. Article 2 of the Regulation specifies that EIAs are required for public or private projects which may directly or indirectly impact negatively on the environment. Article 3 classifies activities into the following three categories, depending on their likelihood of causing significant negative impacts:

- Category A – full EIA for high impact activities;
- Category B – simplified environmental study; and
- Category C – no EIA since the project is “benign”, but good environmental management must still be applied.

Annex I of the Regulation identifies areas and ecosystems recognized as deserving special protection under the national and international legislation, such as coral reefs, mangroves, small islands, zones of imminent erosion including dunes at the maritime fringe, etc. Projects likely to be established in such areas, such as marinas, shipyards, pipelines, submarine cables,

ports and dredging, as well as treatment and disposal of solid and liquid residues are included in said annex.

### 2.5.3 *Institutional capacity*

#### **Government**

The EIA process involves three key players, the authorities, the proponent of a project or a donor (depending on the size of the project) and the EIA team - which can comprise national and foreign companies, universities, research institutions and individuals. Donor-funded projects are typically large-scale and the service contract often includes conditions which require the proponent(s) to adhere to donor-specific EIA protocols (e.g. World Bank, USAID (United States Agency for International Development) and DFID (Department for International Development)), in addition to complying with Mozambique's EIA regulations.

Created in 1995, the Ministério para a Coordenação Ambiental (MICOA) has two broad domains of responsibility:

1. Implementing the NEMP and associated environmental policy and legislation, and
2. Coordinating with other ministries on environmental matters to integrate environmental aspects in their projects, programmes and policies.

MICOA is organised into five National Directorates:

- Environmental Impact Assessment;
- Management of Natural Resources;
- Land Planning;
- Promotion of Environmental Awareness, and
- Planning.

MICOA is in charge of regulating EIAs, which involves approving the terms of reference for EIAs, reviewing completed EIAs and implementing an audit process. During MICOA's first mandate (1995–2000), its EIA responsibilities and capacities evolved from scratch, with staff numbers gradually expanding to a contingent of five or six professionals housed within a department dedicated to EIA matters. This period was characterised by high staff turnover, including the Head of Department and, although generally positively motivated, the EIA Department lacked the human resources to efficiently implement EIA procedures.

In December 1999, the EIA Department was upgraded to the National Directorate of Environmental Impact Assessment,<sup>19</sup> effective with MICOA's second mandate which started in early 2000. The institutional and political importance of EIA is increasingly recognised both within, and beyond, MICOA. Regulating EIAs requires significant interaction and coordination with other government sectors involved in development and investment projects and consequently MICOA has assumed a more visible profile.

The National EIA Directorate currently comprises eight professional staff including the National Director, who are deployed flexibly for the tasks arising within the Directorate while formally assigned to two departments – an EIA Department (five staff) and an Environmental Auditing Department (two staff). Consistent with MICOA's coordinating role, the EIA Directorate works closely with other government sectors involved in development or

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<sup>19</sup> Direcção Nacional de Avaliação de Impacto Ambiental.

investment projects. Agreements of understanding have been informally negotiated and accepted by the National Directors in charge of tourism, industry, forestry and wildlife.

In order to discharge its mandate more effectively, and in line with the Government's decentralisation policy, MICOA has been establishing an increasing institutional presence at lower government levels since 1995 and Provincial Directorates have been set up in all ten Provinces. However, since district-level government structures are evolving only very slowly and selectively, MICOA is not yet formally institutionalised below provincial level anywhere in the country.

The role of the provincial directorates is, in principle, to facilitate the local implementation of centrally developed environmental legislation, policies and programmes, including the EIA regulations and guidelines. Most provincial government structures by now include Departments of Environmental Management, and some (e.g. those in Nampula and Cabo Delgado Provinces) even have separate EIA departments. However, in practice, the envisaged role of MICOA's provincial structures continues to be strongly curtailed by the severe lack of institutional capacity, and central ministry staff often continue to be involved in monitoring and enforcement activities at the provincial level. The EIA Department in Nampula Province, for example, can count on only one mid-level professional, despite the large number of actual or planned development projects in the Province. Similarly, Cabo Delgado's EIA Department has a total of four staff with little or no background in environmental monitoring and assessment.

Inadequate human resource capacity remains a critical bottleneck to the development of a more effective EIA and sustainable development planning and management system. Public sector salaries are too low to attract experienced practitioners, and new recruits are generally qualified but inexperienced.

Because of the institutional challenges facing the government of Mozambique, there is generally inadequate capacity to conduct reviews of complex EIA reports. MICOA has benefited from extensive capacity building programmes in the last decade (e.g. through assistance from the Dutch government) but there is still a skills gap at technical level. In recent years, the government has relied to some extent on foreign assistance, especially from the Netherlands Commission for EIA. The NCEIA regularly dispatches teams of foreign experts to help MICOA to evaluate EIA studies or to generally advise on strategic environmental issues. Whilst these efforts include training (through working in teams that include local experts), capacity building remains a slow process.

A key concern in respect of quality assurance is the fact that even if the proponent is a private sector entrepreneur, government is usually very anxious for the project to go ahead because of jobs, taxes, royalties and in many cases, shares in the project. Thus, the lines between government and developer are usually blurred. In many cases, government is in fact the developer. This makes it very difficult for MICOA to be critical of a project because of a negative EIA, or to slow down the planning process because of an inadequate EIA (or no EIA at all). The "compromising" of EIA processes is has been known to occur in Mozambique and this is a problem in terms of robustness, and thus quality assurance.

Nevertheless, environmental auditing and inspection govern all development activities implemented since the enactment of the Environmental Act in 1997, whether or not an environmental licence is required. MICOA has started to draft environmental audit and

inspection regulations for internal discussion and subsequent wider consultation. These draft regulations require technical review and improvement prior to submission to the Council of Ministers for approval.

An important aspect of quality assurance is ensuring that EIA practitioners are appropriately qualified, both through training and experience. Mozambique is one of the few countries in the region that require practitioners to be registered before being allowed to practice, though the process of registering appears to be more of an administrative formality than professional screening. As is the case elsewhere in the region, reviewers of EIAs are not required by law to possess a specific qualification nor to have appropriate experience. This is potentially farcical.

### **Private sector**

Although the number of groups providing environmental services has grown since 1994, the number of in-house staff is relatively small. Mozambican companies are dependent on subcontracting consultants from Mozambique, the region or from overseas to provide a full range of services, especially in highly specialised fields. Alternatively, Mozambican companies form associations or joint ventures with foreign companies.

The limited capacity of national companies has left the door open for more experienced larger foreign companies. However, this is not viewed as a barrier to capacity development. Development within certain sectors is at a national scale and the resultant programmes (e.g. roads, energy, and hydrology) require environmental assessments with specialist inputs beyond the capacity of local companies. Whilst the lead agencies for these programmes are typically multinational companies, the norm is for donors to encourage collaborative processes with local partners. This process exposes local consultants to working on large-scale projects within multidisciplinary teams and provides a unique opportunity to gain valuable experience, thereby, ultimately enhancing local capacity.

Mozambique has not previously had a strong tradition of civil society engagement in decision making and the growth of civil society organizations involved in environmental issues has been very slow in this country. There has been more emphasis in the post-war years for civil society groups to be involved in health and human development issues. Even though the “green” agenda has not received much attention in the past, international environment agencies (e.g. WWF and IUCN) now have an active presence in Mozambique.

Nevertheless, recent developments in environmental legislation have promoted the idea of governance in environmental issues and development planning. As is the case elsewhere in the world, people in Mozambique are eager to exercise their rights and there is rapidly growing interest in participation in decision making that has implications for local people. This was vividly illustrated in 2006, when communities became actively involved in the EIA for the proposed SASOL gas prospecting operations in the Bazaruto area. In this case, there were serious concerns that the project would impact negatively on artisanal fisheries, tourism and wildlife, all of which are essential for local livelihoods. Even though the project has potentially very positive impacts at a national level (through gas exports and possibly power generation), the local agenda became prominent in the decision making process. Fortunately in this case, the proponent was committed to engaging civil society in a constructive way and it became possible for local interests to receive prominent attention throughout the process, to the extent that the proponent funded an external review at the insistence of local people. The

SASOL project has been an example of good practice and it could set a new trend in the way that civil society becomes involved in decision making.

#### 2.5.4 **Conclusion and recommendations**

Mozambique has a significantly more advanced legislative setup than most other WIO countries and there is also a growing history of EA practice. However, some improvements are required to more effectively address environmental impacts of development, be they local or transboundary in nature.

In terms of **legislation**, the following is recommended:

- The current Act (or regulations) should provide an explicit mechanism that allows MICOA to commission external reviews and to force proponents to pay for such reviews. This is line with the *polluter-pays* principle. External reviews have been commissioned with good effect in recent years in Mozambique, and in some cases, proponents have paid for these.
- SEA needs to be more clearly defined, as should the purpose of SEAs. Also, the procedure for implementing SEAs could also be clarified in law. Mozambique has a number of extremely sensitive coastal and marine environments, some of which are under enormous development pressure. An example is the Bazaruto archipelago – a declared national park. In spite of numerous strategic plans, management plans and EAs, government is invariably reactive every time a new development proposal is received. Instead, it needs to define how it wants the area to be developed, and then put a plan in place to achieve set objectives. The same can be said for many parts of the coastline..
- There needs to be improved clarity on the role of planning legislation and the extent to which EAs are to be done when government is the proponent. EA is gaining ground in Mozambique, but commitment to enforce them seems higher when the proponent is a private (especially foreign) company than if it is government. Greater consistency is required.
- Standards (e.g. pollution) need better definition.

In terms of **institutional issues**, the following is recommended:

More attention should be placed on compliance, enforcement and monitoring. The government needs to improve the status of MICOA and build the capacity of its staff. Even so, capacity should not only mean more and better qualified government officials. Since environment is a cross-cutting theme, capacity should also be defined as improved awareness and competence in the private sector and civil society, and the willingness of government to engage all sectors of society in decision making. Thus, capacity also means the commitment to good governance. Mozambique will only achieve the desired level of environmental protection when it (in order of priority):

- Raises the political profile of the environment and clearly establishes the links between environment, livelihoods and sustainable development;
- Improves consistency in decision making.
- Builds partnerships with internal and external stakeholders that share a common interest in pursuing the achievement of sustainable development, including civil society and the private sector;
- Strengthens MICOA by improving the quality of their staff and enabling them to utilise outside assistance in achieving quality control;

- Set qualification criteria and a code of conduct for environmental practitioners (this should be done in consultation with the practitioners themselves). Current legislation that requires practitioners to be ‘registered’ before being allowed to practice need to be adhered to.

## 2.6 Seychelles

### 2.6.1 *National Vision*

Environmental rights are clearly entrenched in the Seychelles Charter of Fundamental Human Rights and Freedoms.<sup>20</sup> Article 38 states that:

*“The State recognises the right of every person to live in and enjoy a clean, healthy and ecologically balanced environment and with a view to ensuring the effective realisation of this right the State undertakes:*

- i. To take measures to promote the protection, preservation and improvement of the environment.*
- ii. To ensure sustainable socio-economic development of the Seychelles by judicious use and management of the resources of the Seychelles.*
- iii. To promote public awareness of the need to protect, preserve and improve the environment.”*

In addition, Article 40(e) of the Constitution places a duty on every citizen of the Seychelles to protect, preserve and improve the environment.

Since the Constitution is the supreme law of the islands, such stringent protection of the environment at constitutional level should facilitate environmental management in the Seychelles.

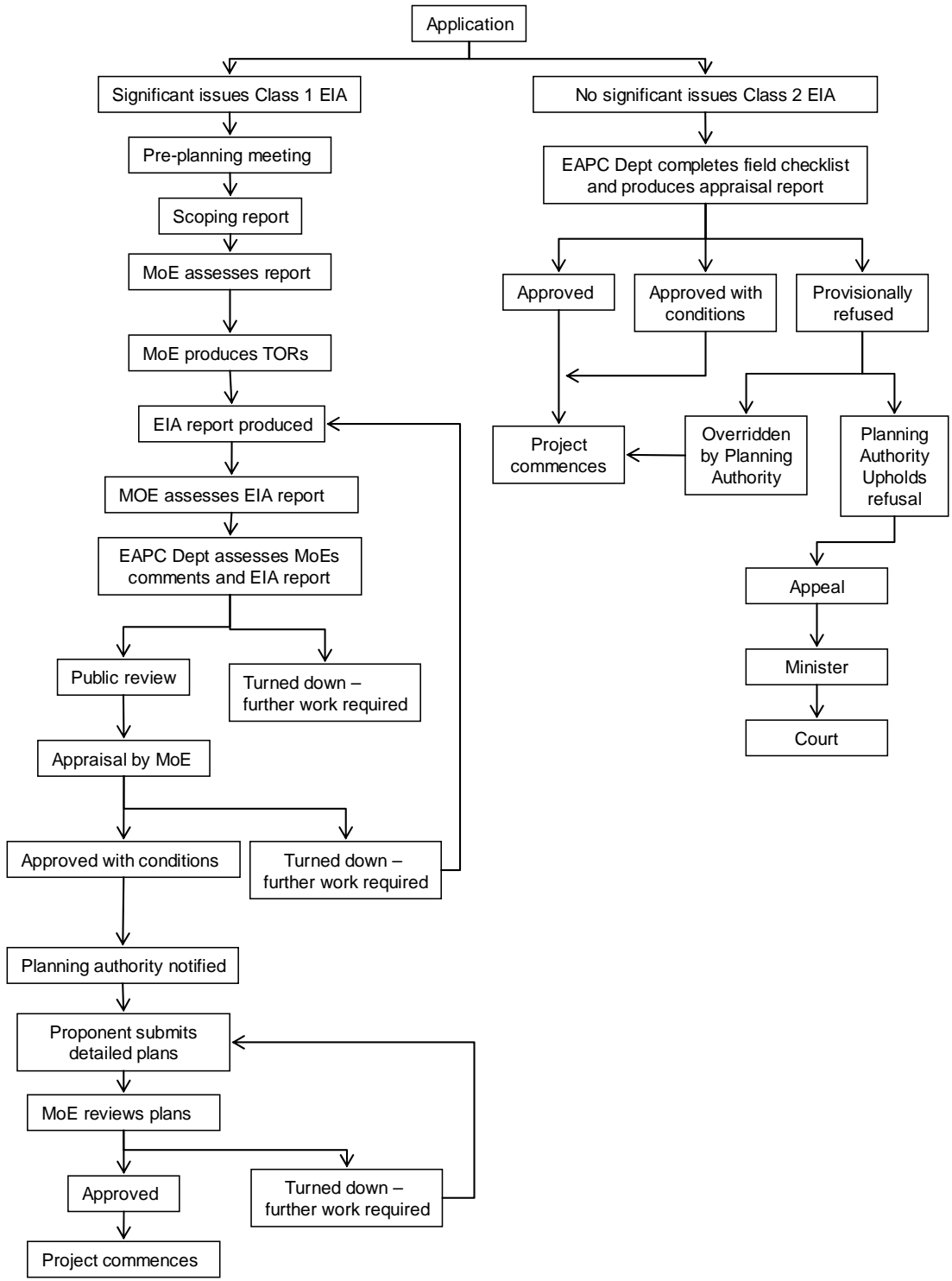
### 2.6.2 *EA legislation*

As is the case in most WIO countries, the Seychelles has relatively well established environmental legislation. The following legal instruments are noteworthy in the context of the Nairobi Convention:

The Environment Protection Act 1994, which is the framework environmental legislation for the country, provides for the protection, preservation and improvement of the environment and for the control of hazards to human beings, other living creatures, plants and property. The Act also provides for the coordination, implementation and enforcement of policies pursuant to the national objectives on environment protection. This Act is administered by the Department of Environment (DoE) in the Ministry of Environment and Natural Resources (MENR), which has been designated as the Authority under the Act. The Act makes provisions for the Authority to co-ordinate the activities of other agencies concerned with the protection of the Environment.

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<sup>20</sup> Government of the Republic of Seychelles (1993). *The Constitution of the Republic of Seychelles*. Victoria.



**Figure 6: EA process in Seychelles (SAIEA 2003)**

The Act provides for the prevention, control and abatement of environmental pollution. Under the Act no person is allowed to discharge or place into the ground or dispose in the subsoil or dig into the ground any polluting or hazardous substance or waste or throw, deposit

or place any polluting, or hazardous substance or waste in any watercourse or in the territorial waters without authorisation.

The Act provides for the declaration of one or more coastal zones as protected. No person is allowed to release or cause to be released into the Coastal Zone polluting or hazardous substances by dumping or through the atmosphere. However, to date no coastal zones have been declared under these provisions.

Part IV of the EPA and the Environment Protection (Impact Assessment) Regulations deals with EIA. The legislation requires that an EIA study be carried out and that an environmental authorisation is obtained before any person commences, proceeds with, carries out, executes or conducts or causes to commence, proceed with, carry out execute or conduct any prescribed project or activity in a protected or ecologically sensitive area. The criteria, which establishes the necessity of an EIA is found in the EP (EIA) Regulations which lists categories of projects or activities requiring environmental authorisation.

Schedule 1 of the EIA Regulations lists the prescribed projects and activities which necessitate an authorisation and these include activities falling within the following: mining, agricultural production, forestry, fish and associated farming products, chemical industries, industry (construction), food and agro-industries, energy production and distribution, water reservoirs and distribution, sewage and wastewater treatment systems, solid waste management systems, the hotel industry (hotels, restaurants and tourism activities), transport (harbours, air transport infrastructure, roads and coastal defences); land reclamation, and housing development. The EPA is being widely used as an enforcement and compliance tool. However, guidelines and procedures have not been developed under the EPA, only the framework exists.

Part IV of the EPA deals exclusively with EIA, setting the necessary parameters for the promulgation of regulations. However, in terms of Section 15(11), the Minister of Environment and Natural Resources is entitled to exclude a prescribed project from the EIA process. The EIA Regulations were published in the *Government Gazette* (GRS 1996a), and were promulgated in terms of Sections 15 and 40 of the EPA. In terms of these Regulations, the following projects or activities are subject to EIA:

- An activity listed in Schedule 1 to the Regulations
- A project in a protected area or ecologically sensitive area listed in Schedule 2 to the Regulations, or
- Any other project or activity likely to have a significant impact on the environment.

The Schedules are extremely comprehensive in their listings of activities as well as sensitive areas. It is unclear in some of the listings whether the EIA Regulations apply only to the listed sites, or to all industrial risk areas although only specific sites are listed. Where a proposed project does not fall into any of the categories, the MoE is empowered to insist that it comply with the EIA Regulations as it may have a potentially significant impact upon the environment. Major aid agencies usually require stringent EIAs to be undertaken for projects they fund.

Under the Town and Country Planning Act, 1972, planning permission is required for all forms of terrestrial development. The Town and Country Planning Authority regulates land utilisation. However, it has been noted that government organisations are exempt from seeking planning permission. The revision of the Town and Country Planning Act has been

long overdue and should include effective provisions on environmental protection and biodiversity conservation.

The Removal of Sand and Gravel Act, 1982 controls the removal of sand and gravel. Following the impact of the activity on the beaches, a ban on removal of sand from the beach and the plateau on the Seychelles has been imposed. However, removal of gravel from rivers is still permitted subject to authorisation though the Act does not specify any criteria which should be taken into consideration when granting such licenses.

The Minerals Act governs and defines minerals and their extraction within the Seychelles. In Section 6 it provides for mining rights in the form of a special mining lease granted by the Minister. However, the definition of minerals does not include coral, sand or sediments

The Public Utilities Corporation Act, 1985 provides for the establishment of the Public Utilities Corporation, a parastatal with a mandate to manage the supply of electricity and water, and the treatment and disposal of sewage. The Corporation has the authority to determine rights of access to any water supply extracted from any source or to pollute any water. Only the corporation is permitted to divert or alter the course of any stream or river. In this case, any developer will need to seek approval from the corporation for any proposed diversion of watercourses.

The supply, control and management of sewage is provided by the Public Utilities (Sewage) Regulations. Owners of land outside serviced areas are required to use, install and maintain a private sewage disposal system. No one may use, install and maintain a private sewage disposal system in a designated sewerage area without permission from the Corporation. The disposal method for sewage, solid wastes or non-domestic effluent must be under the direction of the corporation. The Regulations also provide for the protection of surface water where pollution or misuse may occur.

The Pesticides Control Act, 1996 promotes the safe usage of pesticides. The Act makes provisions for the establishment of the Pesticides Board.

The Land Reclamation Act lays down the procedure to follow for a private or public reclamation of land by filling any foreshore. (Section 3 (1)). A person may object to any land reclamation under section 5 (C) of the Act by stating that the proposed reclamation may adversely affect either:(a) any property owned; (b) may affect public rights; and (c) may affect the natural beauty of the coastal area. Unfortunately, this criterion does not cover all the environmental impacts or factors associated with land reclamation.

Under the Environment Protection Act (1994), land reclamation is an activity which is specified in Schedule 1 of the EIA regulations, implying that such activities will be subject to environmental authorisation following an EIA.

### **2.6.3 *Institutional capacity***

#### **Government**

As noted above, the Department of Environment (DoE) in the Ministry of Environment and Natural Resources (MENR) has been designated as the principle environment authority in the Seychelles. Moreover, the Environment Protection Act of 1994 entitles the ministry to co-

ordinate the activities of other agencies concerned with certain aspects of the protection of the environment and/or the use of natural resources.

The Ministry has several agencies: the Marine Parks Authority, the Solid Waste and Cleaning Agency, the Seychelles Fishing Authority, the Island Development Corporation as well as the Water and Sewerage Division of the Public Utilities Corporation. The Ministry has several divisions, including the pollution control and EIA division; pollution prevention and control; and conservation. The ministry lacks adequate funds for additional manpower and vehicles.

In spite of the fact that there is a general improvement in the quality of EIAs being produced in the Seychelles, quality is variable. Also, monitoring EIA implementation would be more effective if the quality of Environmental Management Plans was improved. Current EMPs generally do not contain enough detail and current monitoring is therefore rather generic. As elsewhere in the region, the logistics of monitoring are become prohibitive – particularly on the outlying islands – because of limited funds and vehicles (including boats). The MENR is considering the possibility of devolving more responsibility to the developer, for example, placing EIA advertisements in the newspapers, monitoring effluent discharge and beach erosion, and employing consultants to monitor the implementation of environmental management plans. EIA administration will not be outsourced, however; the Government will retain full control of this function.

### **Private sector**

The majority of larger EIAs appear to be undertaken by foreign consultants. This is often due to the fact that outside developers will employ consultants that their companies usually use. Of the EIAs reviewed by SAIEA in 2003, 40% were undertaken by foreign consultants (British, French and South African), locals undertook 40%, and 20% were undertaken by a local senior government official.

There are four main environmental NGOs in the Seychelles, but they are not active in the EIA process for a number of reasons – some historical, some political and others logistical.

There is also an inadequate feedback system within the EIA process. When people do comment, therefore, they usually don't know whether any cognisance was taken of their issues. Because the assumption is that their comments were not considered, members of the public are unwilling to contribute towards this exercise. Moreover, the Seychelles is a very small country with a small population, in which it is difficult to achieve anonymity. .

In December 1990, in an attempt to strengthen the position of NGOs in the country, the Liaison Unit of Non-governmental Organisations of Seychelles was formed. Although NGOs undertake significant work to increase their capacity, there are several problems associated with this, such as the difficulty of finding people to undertake voluntary work and inadequate funding.

### **2.6.4 Conclusion and recommendations**

The effective management of the Seychelles environment is imperative to its economic survival. As the population increases in size and society demands a higher standard of living, with a commodity-driven lifestyle, pressure on the environment is increasing. Seychelles has witnessed a significant move forward in environmental awareness, particularly in EIA, in the last decade. The environmental legal system is fairly well developed, with a strong Constitutional commitment towards the environment. The Environment Protection Act and

its various Regulations, including the EIA Regulations, are comprehensive, but there is inadequate capacity for implementation. The major shortfalls in the current process are the lack of involvement of civil society (for a variety of reasons), variability in the quality of EIA reports, no system of external review, and the inadequacy of the level of information relating to project activities and environmental mitigation in the environmental management plans submitted as part of the EIA process.

The main ‘positives’ include –

- the creation of a ministry catering solely for the environment
- the inclusion of strong environmental commitment in the Constitution
- the revision of environmental legislation, resulting in –
  - the promulgation of the Environment Protection Act and EIA Regulations
  - the strengthening of legislation surrounding toxic and hazardous substances,
  - the promulgation of the Pesticides Control Act
  - the amendment of the Wild Animals (Turtles) Protection Regulations,
  - the development of the Plant Protection Act
  - the amendment of the Coco de Mer Management Decree and the Breadfruit and Other Trees (Protection) Act, and
  - the creation of the Marine Parks Authority and the Solid Waste and Cleaning Agency
- the creation of the Liaison Unit of Non-governmental Organisations of Seychelles to coordinate and assist non-governmental organisation activity
- reduced political interference in environmental issues as a result of the move to a multi-party democracy
- the development of the various national documents on the environment (e.g. the two EMPSs and the Seychelles Biodiversity Strategy and Action Plan
- the development of EIA guidelines for a range of development sectors, providing useful information for both the private and public sectors
- increased awareness amongst developers and government agencies with regard to EIA
- the involvement of stakeholders in the 2000–2010 EMPS and Vision 21 documents
- the development and successful implementation of the EIA Regulations and some emission standards
- more effective monitoring of developments in spite of limited capacity
- the compilation of the environmental sensitivity atlas for the Seychelles
- the high profile of the environment in the media and schools, and
- the successful completion of the majority of projects in the 1990–2000 EMP.

Several recommendations for improvement regarding EIA include the following:

- Improve information-sharing and cooperation within and amongst government agencies
- Sensitise developers to the need to undertake EIAs prior to any on-site activities
- Update the Town and Country Planning Act to facilitate coordination with the Environment Protection Act
- Introduce some form of accreditation for consultants, particularly as regards their competence and independence

- Increase the proponent's responsibility in terms of EIA costs, implementation, and monitoring
- Ensure that the National Environmental Advisory Commission becomes more effective
- Include scoping into Class 2 EIAs (currently a decision is based on a site visit by personnel who are not always properly qualified to carry out an assessment)
- Define time frames for the compilation of EIAs
- Generate improved Terms of Reference for EIAs
- Ensure that alternatives and sustainability are addressed in detail in the EIA reports
- Formalise the external review process
- Build the capacity of NGOs and civil society with regard to the EIA process
- Amend the EIA process to more fully involve civil society and provide feedback to all stakeholders prior to report finalisation
- Impose stricter standards with regard to the quality and detail in environmental management plans, i.e. focus the process on information and solutions, not technical data
- Formalise the auditing procedure for each development both during and after construction, e.g. monitoring reports should include a checklist to confirm that requirements from the previous visit have been complied with
- Review the EIA Regulations in respect of time frames provided for eliciting comment by Government, and
- Increase capacity – personnel, training and equipment – within the EAPC Department.

With regard to public review of the final EIA report, the following deficiencies have been identified:

- The two-week period is too short.
- People do not understand the process and, therefore, are not motivated to become involved.
- People often do not notice the advertisements in the newspapers notifying them of the final EIA report's availability.
- The final EIA report is only available at the Botanical Gardens in Victoria between 08:00 and 15:00, Monday to Friday, although if the project concerned is on another island, it will be available there as well.
- The EIA final report is finalised prior to any public involvement.
- There is no feedback to the public on the impact of their comments. They assume, therefore, that no cognisance was taken of their concerns.
- Because people are not empowered to comment on technical reports, they feel intimidated to do so.
- NGOs lack capacity to become involved. NGO effectiveness is further reduced by the *locus standi* provisions in the EPA, which are weak.
- There also appears to be no feedback to the agencies consulted. They are not asked to comment on the draft document and, therefore, are unable to judge whether their concerns have been incorporated into project planning.

## 2.7 South Africa

### 2.7.1 *National Vision*

The Constitution of South Africa contains various environmental provisions and it in particular states that everyone has the right to:

- (a) *an environment that is not harmful to their health or well-being; and*
- (b) *have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:*
  - *prevent pollution and ecological degradation;*
  - *promote conservation; and*
  - *secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

Importantly in the context of EIA, is that the Constitution entrenches the right to information; the right to freedom of expression; the right to participate in political activity; the right to administrative justice; and fundamental science, cultural, legal, economic and environmental rights. In addition, the Constitution requires that all legislatures facilitate public involvement in the legislative and other policy processes. Citizens have the right to engage in public initiatives and processes on an ongoing basis.

Of particular importance to the regulatory and institutional framework for reducing coastal and marine pollution is Chapter 3 of the Constitution, titled Co-operative Government. It provides the starting point for examining the administration of laws that are relevant to land-based sources of marine pollution. First, however it sets out a set of eight “Principles of co-operative government and intergovernmental relations”. (Sect 41(1)). Of relevance to coastal area management generally and regulation of land based pollution particularly is that the three spheres of government (national, provincial and local) must: exercise their powers and perform their functions in a manner that does not encroach on the geographical, functional or institutional integrity of government in another sphere... (s. 41(1)(g)).

### 2.7.2 *EA legislation*

South Africa currently has two framework acts, namely the Environment Conservation Act 73 of 1989 (ECA) which was enacted prior to the transition to democracy, and the National Environmental Management Act 107 of 1998 (NEMA) passed by the post-apartheid government. Many of the provisions of the ECA have been subsumed by the NEMA and in time all of the ECA will be subsumed by the NEMA.

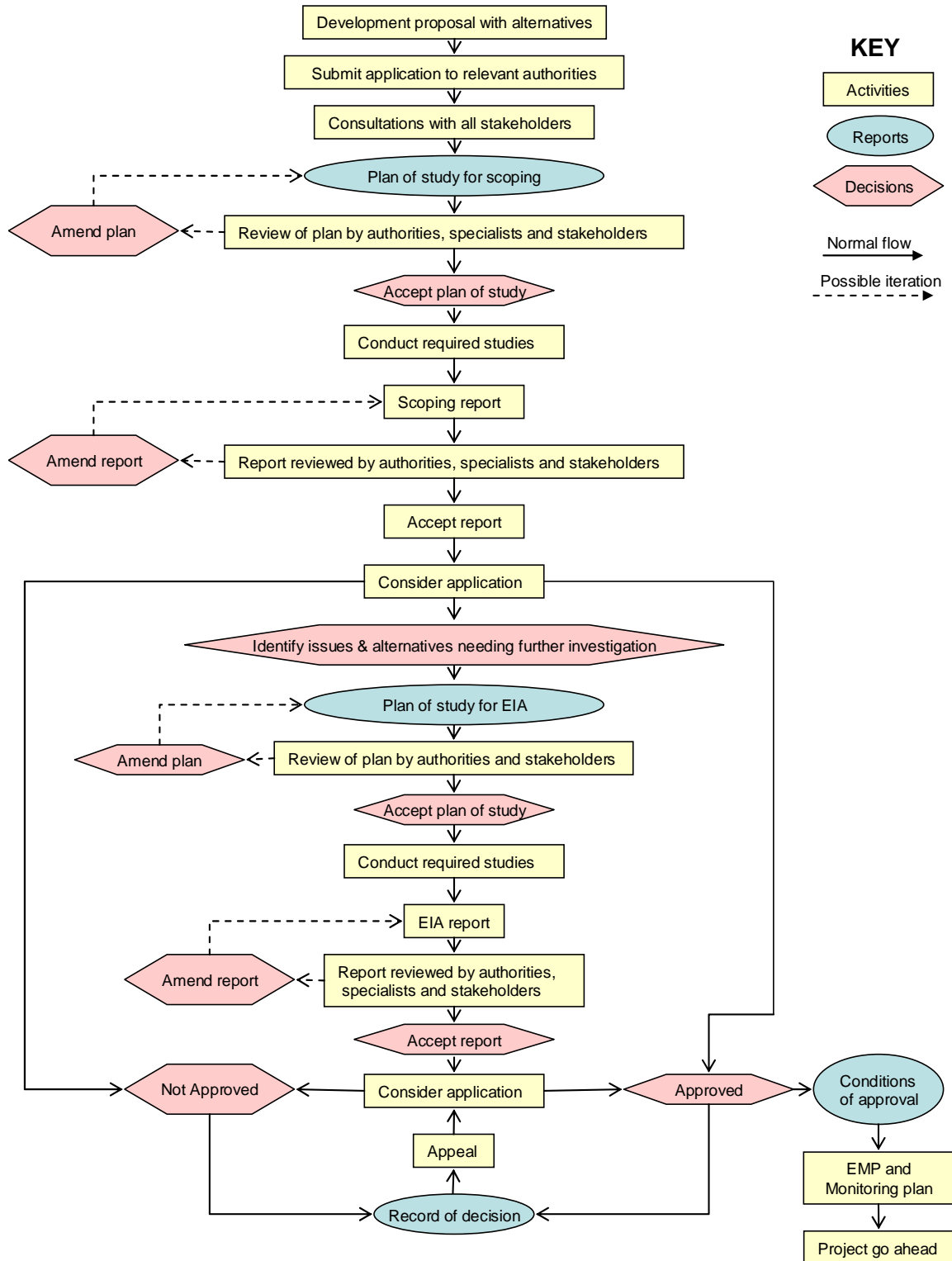
The **National Environmental Management Act** (NEMA) (No. 107 of 1998) repealed most of the Environment Conservation Act (No. 73 of 1989). Subsequently, NEMA has been amended on two occasions by the National Environmental Management Amendment Act of 2003 and the National Environmental Management Second Amendment Act, No 8 of 2004, which came into operation on 7<sup>th</sup> January 2005 and amends section 24 of NEMA.

The aim of NEMA is to provide for co-operative environmental governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state.

Of particular relevance to coastal area management is the principle that: *Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.* Section 2(4)(r).

Another national environmental management principle set out in the NEMA, which is particularly relevant to the coast, is the public trust doctrine to the effect that: *The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage* (Section 2(4)(o)).

In April 2006, the old **EIA Regulations** made in terms of the Environment Conservation Act, No 73 of 1989 were replaced by new EIA Regulations made in terms of Chapter 5 of NEMA. Regulation R385 sets out the processes that have to be followed in order to obtain an Environmental Authorisation, while Government Notices R386 and R387 provide lists of activities which require a Basic Assessment Report and an EIA respectively.



**Figure 7: EA process in South Africa (SAIEA, 2003)**

The Regulations were gazetted on 21<sup>st</sup> April 2006 and came into effect on 3<sup>rd</sup> July 2006, with the exception of the provisions relating to mining, which will come into effect on 1<sup>st</sup> April 2007. Up until then, the environmental impact of mining is dealt with in terms of Part III of Chapter 2 of the Mineral and Petroleum Resources Development Regulations (R527 of

23<sup>rd</sup> April, 2004), which sets out the process and content of scoping and EIA reports as well for environmental management plans. The Department of Minerals and Energy is the leading agent for implementing this legislation up until such time as the EIA regulations take effect as noted above.

The regulations are prescriptive in terms of: the time that should be taken by officials to arrive at decisions, as well as the contents of the two types of reports, public participation and the use of environmental assessment professionals. Apart from the constitution and framework legislations, there are several other enactments which are of relevance, in varying degrees, to the management of land-based pollution in the coastal and marine environments in South Africa.

### **The EIA process**

The EIA Procedural Framework in South Africa is well defined and in line with international best practice. An impact assessment must be conducted for all activities that may have an impact on the environment. An activity is defined as any development action that is likely to result in a significant environmental impact as identified in the schedules contained in R386 and R387 of 2006, or in any other notice published by the Minister or MEC in terms of s.24D of NEMA. The new EIA Regulations distinguish between two types of assessment, either a basic assessment (for 'low impact' projects), or a full EIA for listed activities. The full EIA comprises a scoping phase, an EIA report, specialist studies, public participation and an EMP.

A scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping and it must take into account any guidelines applicable to the kind of activity which is the subject of the application.

If a competent authority accepts a scoping report the EA practitioner must proceed with the study, including the required public participation process, and prepare an environmental impact assessment report in respect of the proposed activity. An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach an informed decision (the regulations specify minimum content). The practitioner managing the EIA may appoint independent experts to carry out specialist studies or specialised process. The regulations specify what must be contained in a specialist report.

In South Africa an EIA report must be accompanied by a draft Environmental Management Plan (Reg. 34) which explains in detail how the impacts of the activity will be either avoided or minimised, and how monitoring and reporting will be carried out.

One of the many strengths of EA in South Africa is the requirement for public participation. The EA practitioner must take into account any guidelines applicable to public participation and must give notice (through various means and media) to all potential interested and affected parties of the application. Also, the public participation process must ensure that:

- information containing all relevant facts in respect of the application is made available to potential interested and affected parties; and
- participation by potential interested and affected parties is facilitated in such a manner that they are provided with a reasonable opportunity to comment on the application.

Registered interested and affected parties are entitled to comment, in writing, on all written submissions made to the competent authority by the applicant and to bring to the attention of the competent authority any issues which that party believes may be of significance to the consideration of the application. Any written comments received from a registered interested and affected party must accompany the report when the report is submitted to the competent authority.

Although there is no specific mention of the need for Strategic Environmental Assessments in NEMA, the concept is implied through the term “Environmental Management Frameworks” as referred to in s. 24(3) of the Act, as amended. The purpose of an Environmental Management Framework (EMF) is to compile information and maps specifying the attributes of the environment in specific geographical areas. The onus is on the Provinces to develop a draft EMF and to subject it to a public participation process (Regulation 70 of R385).

### **2.7.3 Institutional capacity**

#### **Government**

Environmental Impact Assessment is the responsibility of both national and provincial departments of the Department of Environmental Affairs and Tourism (DEAT). Policy formulation and coordination takes place at national level, while approval of EIAs for most development proposals has been devolved to the provinces.

Two advisory and co-ordinating bodies have been established: the National Environmental Advisory Forum and the Committee for Environmental Co-ordination. The National Environmental Advisory Forum, established in 2005, advises the Minister on any matter concerning environmental management and governance, specifically the setting and achievement of objectives and priorities for environmental governance, and appropriate methods of monitoring compliance with the principles set out in section 2 of the Act. The Forum also informs the Minister of the views of the stakeholders regarding the application of the principles set out in section 2 of the Act. The Committee for Environmental Co-ordination promotes the integration and coordination of environmental functions by the relevant organs of state and in particular, promotes the purpose and objectives of environmental management plans. The CEC has not yet been constituted.<sup>21</sup>

As noted above, most development project EIAs must be submitted to the Provincial Department, as the competent authority, with the exception of the following instances, when the Minister takes on the role of the competent authority:

- When the project has implications for national environmental policy or international commitments or relations (e.g. if the project will impact on the SADC Shared Water Resources Protocol or Ramsar obligations);
- If the project will take place within an area identified as a special geographic area as a result of the obligations resting on the state in terms of any international environmental instrument, other than any area falling within the seashore, a conservancy, a protected natural environment, a proclaimed private nature reserve, a natural heritage site or the buffer zone or transitional area of a biosphere reserve or a world heritage site;

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<sup>21</sup> As of December 2006.

- If the project will affect more than one province or traverse international boundaries (e.g. if a dam for a hydro-electric scheme were to flood areas in two or more provinces);
- When the project is to be undertaken by a national department, a provincial department of environmental affairs or a statutory body performing an exclusive competence of the national sphere of government e.g. Eskom;
- If the project is situated within a national proclaimed protected area or other conservation area under control of a national authority (s. 24C(2) of the NEM: Second Amendment Act, 2004).

In addition, DEAT, being the lead agent for environmental management, is responsible for:

- Developing and enforcing compliance with environmental policy;
- Developing and implementing an integrated and holistic environmental management system;
- Coordinating and supervising environmental functions in all spheres of government; and
- Developing and enforcing an integrated and comprehensive regulatory system.

In terms of section 42 of the National Environmental Management Act, No 107 of 1998, (NEMA) the Minister of Environmental Affairs and Tourism can designate the provinces as competent authorities, i.e. they are empowered to authorise development activities in terms of the EIA regulations. The provinces may, in turn, devolve this competency to their local authorities, as provided for in s.42(3)(b) and s.42(A)(1) of NEMA: First Amendment Act of 2003. The EIA administration function in most provinces is located within portfolios dealing with natural resource management, tourism, conservation or agriculture.

In terms of the new EIA Regulations, the Authorities are required to perform a number of functions and within certain time frames. The main obligations of the provincial departments are:

- To provide the applicant with any relevant guidelines and information;
- To advise the applicant on the nature and processes that must be followed in order to comply with the Act and Regulations;
- To consult with other competent authorities and other organs of state to avoid duplication of effort;
- Receive and acknowledge receipt of applications within the stipulated timeframe.

### **Private sector**

South Africa has a great number of environmental practitioners (>600), most of whom are well qualified and experienced. The ‘first world’ nature of some parts of South Africa and the sophistication of its laws and procedures, has resulted in environmental consultancy becoming a ‘growth industry’. As a result, there are many well established EIA consultancy companies in all the provinces and hardly any EIAs are conducted by foreigners. Also, South African consultants are taking an ever greater share of the ‘EA consultancy’ market in Africa and further afield. A number of South African universities offer excellent post-graduate degrees in EA related fields and South African academics and practitioners have played a leadership role in many international organizations (e.g. the International Association for Impact Assessment – IAIA). South Africa has long boasted the most active and vibrant national branch of IAIA.

In an attempt to address the issue of quality control, South Africa has established an Interim Certification Board where EA practitioners register themselves on a voluntary basis. An initiative is currently underway to make certification obligatory.

South Africa is also fortunate in having a rich diversity of environmental NGOs that are very active in EA processes as well as in other environmental initiatives. In most cases, NGOs have been very supportive of government efforts, but there have been cases where some have opposed projects and successfully appealed against Records of Decision issued by DEAT. Whilst there is emerging tension between government and some NGOs, it is perhaps healthy to have a situation where civil society plays a stronger watch-dog role than in most other WIO countries.

Of concern, however, is the perception that environment is a 'middle class' agenda and that environmental NGOs are opposing development aimed at uplifting the standard of living of the people. Whilst an examination of the evidence suggests that this is not the case, much needs to be done to mainstream environment into all sectors of society and to demonstrate the close linkages between environment, livelihoods and national development.

#### **2.7.4 Conclusion and recommendations**

As noted earlier, South Africa has an advanced EA system that in many ways is equal to or better than can be found in some 'first world' countries. However, there is still some room for improvement. For example:

- Political support for EIA needs to be improved. Without such support, EIA administrators will not be able to motivate for sufficient management capacity and resources to do their work.
- A rationalisation of what needs a full EIA and what could adequately be served by a basic EIA. There is a perception that too many EIAs are being done in South Africa, resulting in bottlenecks, extensive time delays and frustration by developers and politicians.
- Improved management of EA processes – in many cases, the delays caused by public appeals are simply a result of inadequate management by the authorities. As a result, civil society organisations are often wrongly blamed for slowing down the process.
- A shared database for collecting, managing and tracking EIA applications should be developed and made accessible to all provinces.
- EIA should focus on and include the core sustainable development issues in Africa, e.g. HIV/AIDS, unemployment and poverty eradication. In fact, EIA should be seen as a tool for promoting sustainable development.
- There is a need for effective strategic decision-making frameworks. Current spatial development frameworks or policies are not effective as a screening mechanism or decision criteria for approval of projects.
- EIA should be strongly linked with and integrated into environmental management systems.
- Post-implementation monitoring and auditing should be enforced.
- For EIA to be credible and play a meaningful role, the capacity of the implementing authorities needs to be improved.

## 2.8 Tanzania

### 2.8.1 *National Vision*

Tanzania has, at the very highest level, committed itself to the conservation of the country's natural environment and both the Constitution and various Mission Statements make a clear link between a healthy environment and the wellbeing of the citizens of the country. The following clauses have relevance:

Under Article 27 of the Constitution, the public is called upon to ensure that the natural resources of the country are managed properly:

- (1) *Every person is obliged to safeguard and protect the natural resources of the United Republic, State property and all property jointly owned by the people...*
- (2) *All persons shall by law be required to safeguard State and communal property, to combat all forms of misappropriation and wastage and to run the economy of the nation assiduously, with the attitude of people who are masters of the fate of their nation.*

The vision of the Ministry of Environment of the Vice-President's Office of Tanzania is –

*... to attain sustainable human development, eradication of poverty, security and equitable use of resources on a sustainable basis to meet the basic needs of the present and future generations without degrading the environment or risking health or safety and also maintain the union between the Government of the United Republic of Tanzania and the Government of Zanzibar.*  
(Office of the Vice-President 2002)

The mission of the Vice-President's Office is –

*... to formulate policies and strategies on poverty eradication, protection of environment and non-governmental organisations as well as co-ordinate all issues pertaining to the union of the Government of the United Republic of Tanzania and the Government of Zanzibar.*  
(Office of the Vice-President 2002)

The above strategic direction provides the necessary framework for the development of national policies, laws, programmes and plans that should enable the efficient management of the coastal and marine environment and curtailing of land based pollution. The above clauses also enable Tanzania to develop mechanisms for adhering to the Nairobi Convention.

### 2.8.2 *EA legislation*

The National Conservation Strategy for Sustainable Development, the National Environmental Action Plan and specific sectoral policies such as those on land, mining, energy, water, agriculture, population and fisheries recognise EIA as a means of ensuring natural resources are soundly managed, and of avoiding exploitation in ways that would cause irreparable damage and social costs. All the above documents/instruments emphasise the need to promote socio-economic development within the context of acceptable limits, and

to seek a balance between economic development and environmental conservation, with a view to achieving sustainable national development.

Within this framework therefore, EIA is to be an 'environmental permitting pre-requisite', and the issue of any developmental permit or licence is subject to specific approval by the National Environment Management Council - NEMC (NEMC 2002).

The National Environment Policy (NEP) seeks to provide the framework for making the fundamental changes that are needed in order to incorporate environmental considerations into the mainstream of decision-making. It seeks to provide guidance and planning strategies in determining how actions should be prioritised, and provides for the monitoring and regular review of policies, plans and programmes. It further provides for sectoral and cross-sectoral policy analysis, so that compatibility among sectors and interest groups can be achieved and the synergies between them exploited.

The overall objectives of the NEP are, therefore, the following:

- To ensure the sustainability, security and equitable use of resources in meeting the basic needs of present and future generations without degrading the environment or risking health and safety.
- To prevent and control the degradation of land, water, vegetation, and air, which constitute our life support systems.
- To conserve and enhance our natural and manmade heritage, including the biological diversity of Tanzania's unique ecosystems.
- To improve the condition and productivity of degraded areas, as well as rural and urban settlements, in order that all Tanzanians may live in safe, healthy, productive and aesthetically pleasing surroundings.
- To raise public awareness and understanding of the essential links between the environment and development, to promote individual and community participation in environmental action, and
- To promote international cooperation on the environment agenda, and expand participation and contribution to relevant bilateral, sub regional, regional, and global organisations and programmes, including the implementation of treaties.

Because the NEP has no legal backing, its main weakness is its reliance on the authorities responsible to enforce the need to undertake EIAs. These authorities do not always include the recommendations of EIA reports as conditional to granting developers the authority to proceed with their projects.

The sectoral policies, on the other hand, provide a list of projects prescribed for EIA but do not define any thresholds in respect of project size, area of development, and so on. This may mean EIAs are undertaken for insignificant projects, resulting in time delays and unnecessary expense, or may not be undertaken for projects that may have a high impact on the environment.

The **National Environmental Management Act** (No. 19 of 1983) provides for the establishment of the NEMC, which developed the National Conservation Strategy for Sustainable Development in 1994 (NEMC 1994).

However, the country currently lacks both an effective institutional framework and a coherent code of supporting legislation to ensure sustainable environmental management. This is despite the change that occurred in 1995, when it was decided that overall responsibility for environmental management would be transferred from the Ministry of Natural Resources to the Office of the Vice-President, in order to enhance cross-ministerial coordination.

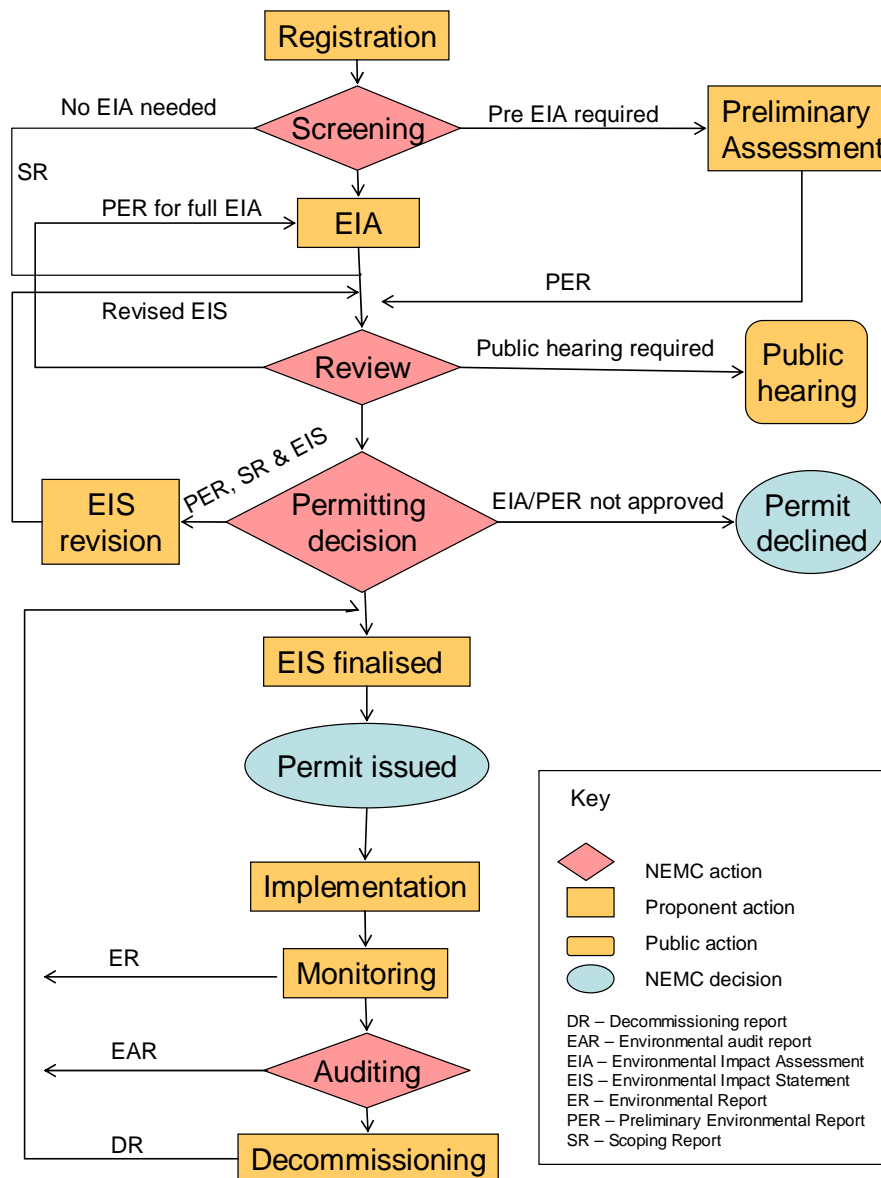
The revised **Environmental Management Act** (2004) specifies detailed measures for protecting ecological processes, the sustainable utilisation of ecosystems, and for environmental protection. Environmental management plans (EMPs) for activities that affect the environment are also required. The development and production of environmental quality standards relating to air, water, soil, noise, vibration, radiation, effluent and waste are also seen as part of the process.

The Act seeks to legalise the current policy and harmonise the legislation. Amongst others, all the policy requirements as regards EIA form part of the Act.

In Tanzania, the EIA procedure involves the following stages:

- Registering a project: The proponent is required to register the project with the NEMC.
- Screening: The project is classified to determine the level at which the environmental assessment should be carried out.
- Conducting an EIA: This involves the three main stages of the EIA process (scoping, preparing terms of reference and preparing an environmental impact statement (EIS)). It is at this stage that the decision is made whether to conduct the EIA or not.
- Reviewing the EIA: A Technical Review Committee (TRC) established by NEMC reviews the EIA and decide whether the EIA is acceptable or not.
- Issuing the relevant permits: If the EIA is approved, the NEMC issues the necessary environmental permit that confirms the EIA has been satisfactorily completed and the project may proceed if the EIA has found it to be environmentally acceptable.
- Decision-making: A decision is made as to whether a proposal is approved or not; a record of decision (RoD) reflects on the issues examined in the EIA and how environmental issues must be taken into consideration during project implementation.
- Monitoring project implementation: The proponent prepares and executes an appropriate monitoring programme (i.e. an environmental management programme (EMP)).
- Auditing the completed project: NEMC undertakes periodic and independent audits of the project. Depending on its findings, it will issue an Environmental Auditing Report.
- Decommissioning the project upon its completion: A decommissioning report is prepared at the end of the project life. This report outlines the Restoration/rehabilitation activities to be carried out by the proponent and is lodged with the NEMC.

The Environmental Impact Assessment and Audit Regulations (2005) accompany the EMA. Section 59 specifies the need for transboundary impact assessment whilst the First Schedule lists activities that need an EIA. Type A activities are compulsory, while B activities could have a “mini EIA”. The scope of activities requiring an EIA is vast, ranging from nuclear energy projects to camping activities. It should be noted, however, that the list does not specify thresholds – e.g. project size or production criteria. The regulations also specify EIA process requirements (Section 13), contents (Section 18), public participation (section 17) and review (section 24)).



**Figure 8: EA process for Tanzania (SAIEA 2003)**

Developers may not implement a project or activity listed under the EIA procedure and guidelines without an approved preliminary environmental report or environmental impact statement. A *preliminary environmental report* is a document in which the proponent

provides detailed information concerning the effects that the undertaking would have on the environment as defined in the screening report. An *environmental impact statement* is a report prepared by the proponent after an EIA study, to present the case for the assessment of their proposal as part of the EIA process.

Draft EIA guidelines (NEMC 2002) were first presented in 1996 to a wide group of government sectors, parastatal institutions, private sectors, financial institutions, NGOs, representatives of donor communities, and research and academic institutions. The current EIA guidelines (March 2002) are the results of these deliberations and constitute five volumes:

- Volume 1: The main document that elaborates the proposed EIA procedure.
- Volume 2: Screening and scoping guidelines.
- Volume 3: Guidelines on report-writing.
- Volume 4: Guidelines for EIA review and monitoring.
- Volume 5: A checklist of environmental characteristics (i.e. physical, ecological, land use, cultural and socio-economic characteristics).

### 2.8.3 *Institutional capacity*

#### **Government**

The National Environment Management Council (NEMC) is the regulatory and supervisory agency in environmental management. The issuing of a development permit/license is subject to provision of environmental approval by NEMC. An EIA Directorate was established at NEMC in 1996 to facilitate and implement the EIA process.

In spite of a desire for a strong NEMC, local authorities are supposed to be the principal executive agencies of environmental policies and regulations, which adds an important dimension to the framework. Their precise role in natural resource management depends on the particular sectoral legislation governing their activities and the nature of the activity in question. However, local government is weak, and coordination with central government is inadequate. The only act specifically requiring central government coordination with local government is the Marine Parks and Reserves Act (No. 29 of 1994). This miss-match between what is written on paper and what can be implemented in practice is cause for great concern.

Thus, environmental management lacks harmony and continuity from national to local levels (Mniwasa & Shauri 2001). Since it is at the local level where systems of environmental management become complex, serious attention is required to improve management and technical capacity. Environmental management requires not only the integration of all institutions in the field, but also the empowerment of the local authorities to manage and conserve natural resources and the environment.

Although there are a number of sectoral policies that advocate the use of EIA in project planning, the national capacity for the management and implementation of EIAs is also extremely limited (Mwalyosi & Hughes 1998). Currently, only the NEMC has the potential to manage this process.

Many sector-based ministries share terrestrial, coastal and marine resource planning, management and enforcement duties. These include –

- the Ministry of Natural Resources and Tourism, with forestry, fishery, tourism, and park regulatory responsibilities
- the Ministry of Lands and Human Settlement Development
- the Ministry of Industries and Trade
- the Ministry of Water and Livestock Development
- the Ministry of Agriculture and Food Security
- the Ministry of Foreign Affairs and International Co-operation
- the Ministry of Energy and Minerals
- the Ministry of Communication and Transport
- the Ministry of Home Affairs, and
- the Office of the Prime Minister (local authorities).

Responsibilities are delegated to the various divisions within each ministry. The Ministry of Environment, which falls under the Office of the Vice-President, is responsible for overall environmental management and protection. The Vice-President's Office (which includes the NEMC and the Ministry of Environment) and the Ministry of Regional Administration also have important responsibilities relating to environmental protection. The NEMC is the technical arm of Government responsible for managing environment-related issues. It also acts as an advisory body to the Office of the Vice-President, evaluating existing and proposed policies as well as government activities related to the environment.

A similar structure exists for the Zanzibar Government. Governance for Tanzania's coastal zone is complicated by the existence of two national jurisdictions – the Zanzibar Government and the Union Government. Whereas certain issues such as home affairs (law enforcement) and foreign affairs are under joint responsibility of the Union Government, most of the coastal and marine management issues are not union matters. Most of the ministries are un-coordinated, which creates great difficulties in the management of coastal and marine resources. Authority is fragmented and often overlaps between different departments, thus causing unnecessary competition. Both the Zanzibar and the Union government need to develop sound institutional linkages in order to optimize the use of limited financial resources and support facilities.

The lack of a comprehensive institutional framework, which could act as a focal point in coordinating all activities related to marine and coastal areas, is a major drawback in the formulation of integrated coastal zone management. For example, as pointed above, fisheries officers at the regional and district levels administratively report to two different ministries (Prime Minister's Office and Ministry of Local Government) while technically, they belong to the Ministry of Natural Resources and Tourism. This poses a major constraint to the efficient implementation and administration of the government's fisheries development projects. The adoption of the Territorial Sea and Exclusive Economic Zone Act of 1989 vested substantial powers for the control of coastal resources in the Ministry of Foreign Affairs. The Ministry is responsible for the development of the necessary framework for an integrated marine policy, but due to the diverse nature of the coastal zone, progress is slow. However, it should be pointed out that the preparation of this policy and related legislation should involve local and international interest groups to ensure the adoption of sound and acceptable management practices.

As noted earlier, the Government of Tanzania has moved the functions of Environment and associated institutions (National Environment Management Council and Division of

Environment) to the Vice President’s Office. The Minister of State responsible for the Environment heads these functions. However, to date, the Vice President’s Office has not issued guidelines on the way in which sector ministries and parastatals will be engaged in a coordinated manner in addressing environmental issues.

**Table 2: Government Institutions Dealing with Different Aspects of Coastal and Marine Environment in Zanzibar**

Ministry	Institution	Specific Responsibilities
Ministry of Water, Construction, Energy	Department of Environment	Environmental law and setting of environmental standards
Lands and Environment	Department of Lands	Land management, administration, and control
	Department of Urban Planning and Surveying	Urban planning, land use planning, development control and physical standards
Ministry of State for Regional Administration		Coordinates all aspects related to regional and district administration and local government (municipal councils, wards and ‘shehias’)
Ministry of Agriculture, Resources, Livestock and Fisheries		Agriculture, livestock, natural resources fisheries and forestry

The Local Government Reform Programme carried out through the Vice-President’s Office stresses the need to devolve the framework for environmental management. Local government’s level of participation and authority to deal with environmental issues needs to be increased. This can only be achieved by devolving the powers from central government to local government. The devolution of powers should be coupled with an enabling environment in which they can be exercised.

The NEMC, whose staff are based in Dar es Salaam, is responsible for reviewing EIAs. The NEMC often dispatches staff on a temporary basis to the provincial and district offices closest to where the proposed project is located, so that they can conduct an *in situ* review. Government departments responsible for the sector under which a proposed project falls are also obliged to offer input in the EIA review process through a Technical Review Committee. Experts outside of Government can also be invited to assist in the review of EIA reports, e.g. those that focus on investments and relevant research institutions.

The NEMC has developed a formal system for reviewing EIA reports. As part of the process, the reviewer considers whether certain specified aspects have been adequately addressed or satisfied in the report, and then gives a score for each of the main topics covered. The overall score of the report is the average of the scores given to each of those topics. Some of the persons undertaking the review of EIA reports have found the recommended system of review cumbersome, and instead use their personal judgment and past experience to decide whether a report is satisfactory. Deviation from a predetermined format can improve creativity in the review, but more often it results in the review becoming subjective and the decision based more on the bias of the reviewer than an objective, step by step process. The advantages of a structured system are especially apparent when one is relying on inexperienced, often inadequately trained staff and poorly resourced local authorities. There

seems to be a strong case for both the Union and Zanzibar governments making better use of independent, expert review teams to handle the more complicated or controversial EIAs. This is especially important if government (either central or local) is in fact the proponent. The common practice of the authorities being both “the proponent, the policeman and the judge” is a classic case of a conflict of interests.

The total time taken by the NEMC to evaluate an application is at most 120 working days, made up as follows:

- Screening: 30 days
- Approval of terms of reference: 30 days
- Review (inclusive of 21 days for public reviews): 45 days, and
- Issue of Provisional Environmental Permit: 15 days.

This time frame does not include the time a proponent takes to fill in a registration form, prepare a Provisional Environmental Permit (PEP) or environmental impact statement (EIS). Nor does it accommodate the time required to hold a public hearing. Thus, the time taken by proponents to undertake EIA studies has generally depended on the complexity of the project. For most projects, such studies generally take anywhere between three weeks to three months. EIA studies for large mining or hydropower projects have taken approximately 6–12 months.

If the 60-day review process deadline is not met, the proponent can assume that their EIA report has been accepted and permission granted to proceed. However, in practice, most developers (especially for large projects) seek to obtain official EIA approval in order to safeguard themselves from any future repercussions. The developer has ten days in which to lodge an appeal with the ministry responsible for environment.

Project proponents have expressed their frustration that there is seldom feedback from government regulators or donor agencies on the adequacy of draft environmental impact statements. According to the IRA (1998), this could be due to the poorly defined responsibilities for undertaking EIA review at government level, a chronic lack of expertise and resources, and a lack of coordination. Thus, the absence of comment is sometimes misconstrued as meaning that the environmental impact statement was acceptable when, in fact, it may not have been. The use of independent, expert review teams will likely reduce this problem if government is smart in the way it outsources this critical function.

Post-completion follow-up is almost non-existent in Tanzania (IRA 1998). This may be because proponents do not have ownership of donor-supported projects, and there is little accountability for the recommendations contained within the environmental impact statement. The absence of institutional mechanisms and legislation hinders the enforcement of compliance with such recommendations.

### **Private sector**

An examination of 26 EIA reports prepared between 1992 and 1998 revealed that international consulting companies prepared 70% of them (IRA 1998). Where these companies used Tanzanian expertise, it was generally only in a supporting role (i.e. as translators or facilitators). In 23% of the cases, local expertise was completely excluded. Moreover, EIA training for Tanzanian nationals was a component of only one EIA process (IRA 1998).

Creating an indigenous pool of expertise through on-the-job training was viewed as an important means of developing environmental management capacity. Conversely, dependence on foreign consultancy inputs means that valuable experience is generally lost to the country. Foreign consultants are seen as expensive and often insensitive to local cultural issues. There are also reservations about the appropriateness of the current dependence on foreign consultants, despite the acknowledgement that Tanzania lacks its own skilled and competent practitioners. The Pan-African network for EIA (known as Capacity Development for Environmental Assessment for Africa – CLEAA) has identified the strengthening of local capacity as its main objective. Through its Eastern African Node (the Eastern African Association for Impact Assessment), CLEAA has organised a number of training activities – some of which have benefited Tanzanians.

There is a large contingent of environmental NGOs and CBOs (community-based organisations) in Tanzania. Part of the function of the Office of the Vice-President is to coordinate NGO and CBO activities. The Tanzania Association of Non-governmental Organisations is the largest and longest-standing national umbrella organisation serving the Tanzanian NGO community. In the environmental sector, the majority of NGOs and CBOs are involved in environmental education, tree-planting, soil and water conservation (mostly as extension services to the farming community), and improved use of energy resources (notably fuelwood and charcoal, as well as the introduction of solar energy to rural communities).

Public participation is required during the scoping stages and during the EIA process. The proponent is responsible for identifying interested and affected parties and ensuring that all parties concerned are given adequate opportunity to participate in the process. A public information programme is initiated, and public notices are issued during the scoping and EIA stages. Whenever a strong public concern over the proposed project is indicated and impacts are extensive and far-reaching, the NEMC is required to organise a public hearing. The results of the public hearing should be taken into account when a decision is taken whether or not a permit is to be issued.

While there is a strong consensus that public participation should be central to EIA practice, public involvement only occurred in 8% of the EIAs recorded by the IRA. In this regard, they identified a number of constraints (IRA 1998):

- **Inadequate scoping, poor terms of reference and insufficient time:** EIAs are often commissioned as ‘afterthoughts’ in the project planning and implementation process, leaving little opportunity for public involvement, or the consideration of alternative project options.
- **Socio-cultural factors:** Tanzanians consider themselves a ‘non-participatory society’.
- **Misconceptions:** Some believe that EIA documentation is confidential, i.e. belonging to the one who finances the project, which is certainly not the case.
- **A lack of trust:** NGOs are often distrusted by the private sector and parts of central government.

Public notice of the EIA process is issued by the NEMC through newspaper advertisements and/or by announcements posted in appropriate public places. Environmental issues are hotly debated in the newspapers and on the radio.

#### **2.8.4 Conclusion and recommendations**

As noted earlier, governance for Tanzania's coastal zone is complicated by the existence of two national jurisdictions – the Zanzibar Government and the Union Government. Whereas certain issues are under joint responsibility of the Union Government, most of the coastal and marine management issues are non-union matters. In as far as EIA is concerned, the participation of most of the ministries is not effective, which creates great difficulties in the implementation of EA and the management of coastal and marine resources. Authority is fragmented and often overlaps between different departments, thus causing unnecessary competition. Both the Zanzibar and the Union governments need to develop sound institutional linkages in order to optimize the use of limited financial resources and support facilities.

The lack of a comprehensive institutional framework, which could act as a focal point in coordinating all activities related to marine and coastal areas, is a major drawback in the formulation of integrated coastal zone management.

Although many authors regard Tanzania's legislative framework to be inadequate, the NEP, the National Conservation Strategy for Sustainable Development, the National Environmental Action Plan and specific sectoral policies such as those on land, mining, energy, water, agriculture, population and fisheries recognise the importance of the environment. The Environmental Management Act provides the overall framework for strategic and project level impact assessment.

All the above instruments emphasise the need to promote socio-economic development within the context of acceptable limits, and to seek a balance between economic development and environmental conservation with a view to achieving sustainable national development. Thus, at a broad level there is no fundamental discord within the legal framework. However, there are contradictions between certain laws, such as the Mining Act which requires an EIA report to be submitted to the Commissioner of Mines, whilst the EMA requires it to go to NEMC. Whilst this contradiction causes numerous problems, it can easily be overcome by an agreement to cooperate between these two institutions.

There are several sectoral legislations that have relevance for the management of marine and coastal resources on Tanzania Mainland. In most cases, the combination of sector legislation and the cross-cutting EMA should ensure that activities likely to cause land based pollution or degradation of the coastal and marine environment undergo the required EIAs before being permitted to go ahead (assuming the EIAs find no fatal flaws). Also, the EMA provides for the conducting of Strategic Environmental Assessment and for EIAs to consider transboundary impacts. If these SEAs/EIAs go ahead as they should, and they influence decision making as they should, then downstream impacts will be addressed at both planning and implementation levels. The key is not necessarily trying to create new laws, but to implement those that already exist.

More worrying is the fact that Tanzania lacks a coherent and harmonized coastal legislation for dealing with the marine and coastal environment. This is further complicated by the existence of two different types of legislation for Zanzibar Islands and Tanzania Mainland. The fact simply is that coastal zones are always areas where many sectors have jurisdictional functions, and conflicts are common. It is also the area where many different types of ecological systems meet and interact, in the process creating unique habitats. The way this has traditionally been dealt with is for sectors (e.g. mining, fisheries, tourism, town planning)

to agree to work together in some way. However, there are few examples in Africa where a country has recognised the unique jurisdictional situation in the coastal zone and then created a specific coastal zone law that goes much further than inter-sectoral cooperation. The ultimate solution is probably the creation of a coastal zone authority that is truly an integration of sectors “under one roof”.

Experiences shows that while enacting EIA laws is one thing, enforcing and implementing them is another. More often than not, the problem lies with enforcement. The main contributing factors for weak enforcement in Tanzania are:

- limited financial and human resources,
- inadequate technological capacity,
- pressure on the government from interest groups,
- a shortage of reliable information to guide implementation of both policy and legislation,
- inadequate transparency, and
- practical problems of administering environmental regulations.

During the early to mid-1990s, when the EIA process had just been put in place, most EIAs were undertaken only after projects had already been approved by the Tanzania Investment Centre (TIC) and their planning stages completed. Currently, most of the authorities responsible for issuing permits, such as local authorities and government agencies, are aware of the need to have EIAs undertaken before projects are approved. For example, recommendations made in EIA reports have often been incorporated into project designs. Thus, a key weakness of not doing the EIA before project approval is granted, is that the recommendations made in EIA reports (and then incorporated as actions in the EMP) are not always included as part of the conditions for project implementation. The NEMC does not have adequate human and technical resources to follow up projects to ensure EIA recommendations are in fact being implemented, while local authorities and other decentralised bodies are generally preoccupied with the provision of basic services for their communities.

More recently, with the increasing trend for companies to have their own environmental management policies, EIA recommendations are included as part of corporate environmental management systems. However, there are still a number of problem areas where EIA needs to be improved:

- Environmental impact statements tend to be descriptively strong, but analytically weak.
- Compliance issues are often unclear in environmental impact statements.
- The key components of many EIAs are weak or missing.
- Cumulative impacts are generally not considered.
- Alternative project options are poorly considered.
- There is minimal involvement of civil society in ensuring that the results of EIA studies influence decision-makers. In general, public awareness and knowledge of EIA is minimal.

All of these deficiencies are merely symptoms of a root cause, namely insufficient political support towards environmental protection and the more consistent application of sustainable development tools (SEA/EIA). Whilst environment enjoys more profile and support nowadays than in the past, most politicians are inclined to take a short term perspective on development issues rather than the longer term view that is fundamental to the achievement of sustainable development. With some exceptions, most politicians (and other senior decision makers) because of lack of information on the environmental impacts, can at times

endorse or make decisions that compromise biodiversity and the environment in exchange for short term socio-economic benefits.

Many authors agree that the administrative and institutional mechanisms to handle environmental matters are inadequate in both Tanzania mainland and Zanzibar. In many cases, authority is delegated to the local level, but the relevant institutions are not given the resources to perform their duties properly. As a result, local authorities are nothing more than bureaucratic instruments for central government and do not generate alternative values, preferences or aspirations. It appears that the role local authorities are to play under the current decentralisation process for environmental management is not clearly stipulated. This is made worse by bureaucratic processes resulting in the inadequate release of funds. This leads to frequent delays in services being delivered or environmental projects being completed. In addition, insufficient staff and/or inadequately trained staff for dealing with environmental projects at the local level is a perennial problem. As such, positions in local government are often not respected by the public or desired by potential applicants, and this leads to a high staff turnover, a lack of morale, and very little commitment to innovate or deal with local environmental issues creatively (Mniwasa & Shauri, 2001).

This is despite the change that occurred in 1995, when it was decided that overall responsibility for environmental management would be transferred from the Ministry of Natural Resources to the Office of the Vice-President, in order to improve performance and enhance cross-ministerial coordination.

As elsewhere in the WIO Region, many people in Tanzania view EIA as an impediment to much-needed development. This may be a reflection of EIAs being 'imposed' by donors, and/or the late start to many EIAs, which then become a problem when they call for design changes after implementation of the project has already commenced. This perception is not helped by the fact that the authorities have stipulated that a period of approximately 6 months can be used to process EIAs. Whilst activities such as public, specialist and authority review are indeed time consuming, 6 months is extremely long and is likely to cause frustration amongst proponents and politicians. The greater use of expert, independent reviewers should be considered as a means of supplementing currently inadequate capacity and speeding up the process without compromising on the use of safeguard tools.

Of great concern is the opinion of the Institute for Resource Assessment (IRA 1998), that EIA has had very little impact on decision-making in Tanzania. In most cases, EIAs were extremely late in starting, under-resourced, and generally omitted to involve stakeholders to any meaningful extent. According to IRA, few examples could be found where dialogue between EIA practitioners and proponents led to design modifications in a development project before proponents submitted their environmental impact statement. Moreover, compliance with the recommendations of the EIA has been the exception rather than the rule. Consideration of alternative project options is often absent or extremely weak, and few EIA practitioners seriously consider cumulative impacts. If this assessment is still valid, then EIA in Tanzania is nothing more than a paper exercise.

There are no obstacles to Tanzania being fully engaged in the implementation of the Convention. As noted above, the country has an array of laws that enable it to address land based pollution and other impacts that might otherwise jeopardize the viability of coastal and marine ecosystems. Tanzania also has a number of incentives to comply with the letter and

spirit of the Convention as both its economy and people's livelihoods depend largely on the resources and opportunities provided by these habitats and systems.

However, firm resolve is now needed so that capacity to implement the existing laws is drastically improved. This requires in the first instance political commitment to the concept of sustainable development, and secondly support to the institutions that have been established to oversee their implementation. Tempting though it might be, senior decision makers must ensure that the use of tools such as SEA and EIA are applied consistently and not conveniently circumvented in the interests of short term economic or political gain. Also, consideration should be given to developing specific legislation dealing with the coastal zone and perhaps also establishing a dedicated coastal zone management agency. If this is politically or economically impossible, then an intersectoral Memorandum of Understanding between the key ministries needs to be drawn up to ensure adequate collaboration between various sector agencies. Government must furthermore expand current initiatives to involve Civil Society in this important work.

### **3. Conclusions and recommendations**

Fortunately, it seems that the general status of policy, legal, regulatory and institutional frameworks related to Environmental Impact Assessment in the WIO Region has quite well advanced over the past 10 years. Environment Assessment, in particular Environmental Impact Assessment has become a common tool used for Environmental Governance in all countries in the region, although the actual implementation of such tools is unfortunately often still lacking, either through institutional shortcomings, through a lack of political commitment or through shortcomings in related legislative and policy frameworks. An overview of the main findings of this reports is presented below.

#### **National Constitutions**

Most of the eight countries in the WIO Region have some constitutional environmental provisions. However, the constitutional provisions are usually not explicit on the coastal and marine environment, nor on the use of EA as a development planning tool. The challenge for most of these countries is to at least incorporate environmental issues in their State Constitutions and thereby create better scope for protection of the coastal and marine environment and associated resources. Constitutional recognition will raise the profile and effect of environmental legislation, policies and institutions and lead to better protection of environmental resources.

#### **Framework Environmental Laws, Institutions and other Instruments**

Most countries of the region have framework legislation and other instruments on environment, including coastal and marine environment. Many of these laws are quite recent enactments, such as in Kenya, Madagascar, Mauritius, Seychelles, and South Africa. Therefore, in many respects, these laws incorporate recent international environmental law principles and requirements, such as the polluter pays and precautionary principles, sustainable development, the definition of environmental crimes, dispute resolution and avoidance, key institutions and EA rules and processes. However, regulations for the protection of the coastal and marine environment are generally inadequate. Fortunately, there is an evolving Integrated Coastal Zone Management (ICZM) policy framework for Kenya, which is expected to be completed in the near future. ICZM policy and institutional regimes

exist in Mozambique, Mauritius, Tanzania, and South Africa, and there are developments in that direction in the other countries.

The framework institutions in most of the countries exist as overseers of the entire spectrum of the national environment, even in fairly decentralized systems such as the Comoros and South Africa. The effect of such arrangements is sometimes to obscure the coastal and marine environment in national resource allocation and priority setting. Consequently, there are discernible cases of inadequate technical personnel and financial capacities to deal with the myriad of problems in the coastal and marine environment of these countries. It is thus difficult to always adequately deal with LBSA issues, which are frequently multi-sectoral and multi-disciplinary in nature.

An important challenge facing the countries of the region is to align their framework legislations, institutions and policy instruments to give more deliberate attention to coastal and marine environment generally, and LBSA issues particularly. Alternatively, the countries should consider specific consolidated laws, institutions and policies to address these issues in a more concerted, focused and sustainable manner. The new laws and other instruments should be as closely aligned to the proposed LBSA Protocol to the Nairobi Convention as possible. It is interesting that none of the countries covered in this study has a specific and consolidated legislation, institution or policy instrument on LBSA issues as such, or even the coastal and marine environment generally, perhaps with the exception of those countries which have established ICZM policies.

### **Relevant Sectoral Laws, Institutions and other Instruments.**

All the countries in the WIO Region have numerous sector-based legislation, policies, institutions and regulatory frameworks (UNEP, 2010). Some of the sectors of LBSA relevance include coastal tourism, forestry (including mangroves), manufacturing industries, coastal urban development, agriculture, mining, ports and harbours, and the like.

It is noteworthy that legislation and institutions relating to tourism as an LBSA issue of concern in most of the project countries is fairly sparse. The most relevant laws and institutions on tourism, from an LBSA perspective, are those concerned with land tenure, land use and planning. In all of the WIO Region countries, tourism is an important socio-economic activity, and therefore developments in this sector are generally very welcome. However, there is a misguided belief that tourism is automatically a 'green' industry. It is cause for concern that very few countries in the WIO Region have a coherent tourism vision that, for example, promotes the concept of eco-tourism. This bodes ill for the future of the coastline and for sensitive environments such as coral reefs. Instead, the Region appears to be drifting towards mass or uncontrolled coastal tourism. This is an extremely dangerous trend and the countries are strongly advised to address this as a matter of very high priority.

Forestry related instruments are also important because of mangrove forest extraction, destruction or depletion. In each of the project countries there are portions of mangroves in varying acreage. As is the case for tourism, forestry legislation, institutions and policy instruments are fragmented, sparse and indirect. There is no country that has a "Mangroves Act or Decree" or any legislation that deals with mangroves per se. In fact few of the countries' legislations even mention "mangroves" directly. However, the recently amended Kenya's Forests Act (Chapter 385) has subsidiary legislation that identifies mangroves either as harvestable timber or as specified forest reserves for protection. Section 6 of Mauritius

Fisheries and Marine Resources Act (1998) also directly mentions mangroves and prohibits their destruction. This is in reference to their importance as nursery grounds for fish.

In most of the countries mangroves protection is found in the respective framework legislation where it is treated as part of the natural environment (forests/flora). It is also sometimes described as “mangrove forests”. Since in most countries mangroves are a source of timber and other forest products, the legislation available focuses on mangrove harvesting and either regulates or prohibits the same in some cases. However, there are also problems of competing land uses, such as salt works, aquaculture, mariculture and agriculture. The challenge and opportunity for the countries of the region is to focus on establishing dedicated and focused laws, institutions, policy and regulatory frameworks to avoid a deterioration of an already critically injured resource base.

It is also apparent that in most of the project countries there are various types of legislation which deal with ports, land reclamation, mining and damming of rivers and they relate to physical alteration and destruction of coastal and marine habitats. In particular, legislation on ports (and harbours) tends to be fairly explicit in most of the countries, probably because of the supreme socio-economic importance of ports in each of the countries. Ports are also important in political and military/strategic terms because of the maritime zones claimed by the coastal states. Ports legislation is usually pre-occupied with development and expansion of physical infrastructure and port capacities and the administrative structures which are most traceable directly to central government. The ports authorities are traditionally state enterprises in most of the project countries. They therefore would usually be presumed to be acting in the national or public interest. However, the national legislative studies have shown that where there are environmental impact requirements, they affect even public entities like the respective ports authorities. Enforcement mechanisms would naturally be weaker or compromised where public enterprises e.g. environmental authorities are expected to oversee or supervise other public entities to ensure environmental compliance. Thus gaps exist here especially with regard to enforcement of environmental standards and requirements. This makes ports and harbours’ works, especially dredging and expansion, an LBSA problem.

Elsewhere, there are direct mining legislation and less direct legislation on land reclamation, irrigation and damming of rivers. However, since there are usually compelling socio-economic imperatives for land reclamation, legislation on these activities tends to have either weak and inoperative provisions or ineffective enforcement mechanisms. Perhaps the most important legislation in most of the countries in this regard are the EIA Regulations, and to a lesser extent, legislation that creates protected areas such as forest reserves, marine national parks and nationally controlled coastal or marine zones.

Other sectors of concern, such as agriculture and manufacturing industries, pose serious problems such as the pollution of coastal and marine areas from chemical by-products and other wastes. Fortunately most coastal agriculture is rural and subsistence with fairly low chemical application, while manufacturing establishments are concentrated in the urban centres. The countries of the region seem to regard these as important socio-economic activities and the laws and other instruments applicable are therefore stronger on facilitating the said developments and weaker on imposing environmental standards and requirements. The challenge and opportunity for these countries is to systematically include best environmental standards and principles in their sectoral laws, policies and institutions so as to make agriculture, manufacturing and other industries more sustainable and environmentally acceptable. The concept of integrated coastal zone and river basin management, already

picking up well in many of these countries, is probably the way of the future in dealing with the LBSA issues of concern.

### **Application of Impact Assessment**

This study has found that there are a number of weaknesses in the way that sustainable development tools, notably Impact Assessment<sup>22</sup>, are applied in the WIO region. These include:

- The timing of the Impact Assessment is often too late in the planning process to influence decision making and the nature of the development;
- The relevance of information provided in EIA reports is not made explicit, leaving the non-specialist with the question “so what?”
- Lack of sufficient environmental information, either due to lack of data, or lack of effort to find existing data;
- The implications of gaps in information, uncertainty and/or risks are often not made explicit in terms of irreversibility of impacts, irreplaceable loss of resource, etc;
- Environmental input is often focused on the affected site and at species-level, rather than addressing broader, landscape-scale effects on ecosystems and processes;
- There is little consideration of indirect, cumulative and transboundary effects;
- The Terms of Reference for many impact assessments and specialist studies are often poorly defined;
- The criteria used to determine the significance of impacts are often questionable. They are often not linked to a broader strategic context (e.g. policy objectives, transboundary frameworks, conservation plans);
- The linkages between the environment, ecosystem services and human wellbeing, including the dependence on resources by vulnerable communities, are seldom clearly articulated. Consequently, the effects of development on these linkages – and ultimately communities – are not appreciated or considered; and
- There is inappropriate reliance on environmental management plans and programmes for effective mitigation; the so-called ‘proper management will fix all ills’ approach.

It is no wonder, therefore, that authorities find it difficult to make informed decisions when the Impact Assessment is either poorly timed or poorly done. However, there are many cases where the impact assessment report is adequate, but decision making does not seem to support sustainable development. There are several possible reasons:

- The development imperative in most WIO countries requires short-term socio-economic benefits to be realized;
- There is a general lack of clear guidance or criteria on which to base decisions. This often results in inconsistencies in decision making e.g. the lack of clarity about sustainability principles (such as the Precautionary Principle) and how to apply them;

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<sup>22</sup> Impact Assessment is defined as a process that is used to identify, predict and assess the potential positive and negative impacts of a proposed development and to propose appropriate measures to avoid or minimise impacts. **Environmental Impact Assessment (EIA)** is the application of impact assessment to individual projects while **Strategic Environmental Assessment (SEA)** is the application of impact assessment to policies, plans, and programmes.

- Inadequate consultation and cooperation between authorities, either within a country or between countries;
- Inadequate experience within the government departments to properly guide and review environmental studies;
- Cumulative and transboundary effects are seldom addressed at project-level EIA and therefore developments are approved on a piecemeal basis, without the bigger picture being considered;
- Records of decision or letters of authorization are vague and the associated conditions of approval are often impossible to implement or audit, and are vulnerable to legal challenge, and
- The implementation of conditions of authorization is seldom, if ever, followed up by authorities.

Finally, there are unfavourable 'Frame Conditions' in many WIO countries that make it difficult to apply sustainable development tools such as SEA and EIA and to implement the Nairobi Convention. These include:

- Weak governance: many of the WIO countries emerged relatively recently from periods of conflict, either through wars against colonial occupiers or tribal tensions. The current generation of political leaders are eager to demonstrate their ability to deliver rapid development and many are not favourably inclined towards EA. Many see Impact Assessment as a 'green handbrake' that is designed to slow down development. Instead, it is a unique tool that considers information from many different disciplines (e.g. social, economic, ecological) over various time frames (short, medium and long term), and impacts in the immediate area, farther away and those that are transboundary in nature. This is why Impact Assessment is regarded as a front-line tool in the pursuit of sustainable development. Because of overriding political objectives, many decision makers deliberately subvert their countries' own policies and laws, are intolerant of dissenting views and readily short-circuit the process for short term economic and political gain. Poor governance is the key barrier to the effective implementation of Impact Assessment tools and the Nairobi Convention.
- Weak environment institutions are a feature of most WIO countries. Whilst most countries have adequate EA policies and laws, their EA departments are generally politically subordinate, understaffed and under-resourced with both hardware and software.
- Lack of strategic partnerships: In view of the severe capacity limitations at government level, the authorities could overcome many of their deficiencies by forging partnerships with civil society (e.g. environmental NGOs and CBOs), universities, and consulting firms that could provide much needed 'external' assistance regarding EA quality control. Governments should be aware that capacity does not only mean 'internal' capacity.
- Limited environmental awareness, both within governments and amongst the citizenry. People are simply unaware of the importance of the environment for their livelihoods and economies, and the vulnerability of the environment to impacts. If environmental awareness could be improved, then people at all levels and across all sectors would finally realise that Impact Assessment tools are not a 'green handbrake', but rather a key mechanism for achieving sustainable development.

## **Recommendations**

The two key recommendations arising out of this report are that

1. Some adjustments are needed to improve EA legislation in WIO countries, but that there is no need for major 'harmonization'.
2. Governments must simply be more committed to implementing the letter and spirit of their existing policies and laws and to exercising the appropriate levels of governance that are required to implement the Nairobi Convention.

## 4. Key references

- Brownlie S, B Walmsley and P Tarr (2006). *Situation Assessment on the Integration of Biodiversity Issues in Impact Assessment and Decision Making in Southern Africa*. Compiled by the Southern African Institute for Environmental Assessment in association with deVilliers Brownlie Associates.
- Government of South Africa, Department of Environmental Affairs and Tourism (2004) *Integrated Environmental Management Series*. DEAT, Pretoria.
- 0 Overview of Integrated Environmental Management
  - 1 Screening
  - 2 Scoping
  - 3 Stakeholder Engagement
  - 4 Specialist Studies
  - 5 Impact Significance
  - 6 Ecological Risk Assessment
  - 7 Cumulative Effects Assessment
  - 8 Cost Benefit Analysis
  - 9 Life Cycle Assessment
  - 10 Strategic Environmental Assessment
  - 11 Criteria for Determining Alternatives in EIA
  - 12 Environmental Management Plans
  - 13 Review in EIA
  - 14 Environmental Auditing
  - 15 Environmental Impact Reporting
  - 16 Environmental Economics
- Government of Malawi (2002). *EIA Guidelines for Mining Projects. EIA Guidelines for Waste Management. EIA Guidelines for Sanitation. EIA Guidelines for Irrigation Agriculture*. Min. of Natural Resources and Environmental Affairs.
- GRM (Government of the Republic of Mozambique). 2000. 'Programa do Governo para 2000–2004'. *Publicado no Boletim da Republica n.º 12, 1.ª Série, Suplemento*. Maputo: GRM.
- IRA (Institute for Resource Assessment). 1998. *The performance of EIA in Tanzania*. Dar es Salaam: Institute of Resource Assessment, University of Dar es Salaam.
- Matthes, H. and J.M. Kapetsky. 1988. Worldwide compendium of mangrove-associated aquatic species of economic importance. FAO Fish.Circ. 814. 236 pp.
- Mniwasa, E & V Shauri. 2001. *Review of the decentralization process and its impact on environmental and natural resources management in Tanzania* [online]. Available at <http://www.lead.or.tz/publications/decentralization/> [Accessed November 2001].
- Mwalyosi, R & R Hughes (Eds.). 1998. *The performance of EIA in Tanzania: An assessment (Institute of Resource Assessment research paper No. 41)*. Dar es Salaam: Institute of

- Resource Assessment, University of Dar es Salaam & International Institute for Environment and Development.
- NEMC (National Environmental Management Council). 1994. *National conservation strategy for sustainable development*. Dar es Salaam: NEMC, Office of the Vice-President.
- NEMC (National Environmental Management Council). 2002. *Tanzania environmental impact assessment procedure and guidelines, Vol.'s 1-5*. [Vol. 1 – EIA guidelines; Vol. 2 – Screening and scoping; Vol. 3 – Report writing; Vol. 4 – Review and monitoring; Vol. 5 – General checklist of environmental characteristics.] Dar es Salaam: NEMC, Office of the Vice-President.
- Shepherd G (2004). *The Ecosystem Approach: Five Steps to Implementation*. Ecosystem Management Series No 3. IUCN Commission on Ecosystem Management. IUCN, Cambridge.
- Southern African Institute for Environmental Assessment (2003). *Environmental Impact Assessment in Southern Africa*. Windhoek, SAIEA.
- UNEP (2002a). *Western Indian Ocean Preliminary Transboundary Diagnostic Analysis for Land Based Activities* (2002).
- UNEP (2002b). *Western Indian Ocean Preliminary Strategic Action Plan* (2002).
- UNEP (2006). Second Draft Protocol Additional to The Nairobi Convention Concerning Land-Based Sources and Activities (LBSA) in the Eastern African Region (May 2006). Unpublished.
- UNEP (2006a) *Voluntary guidelines on biodiversity-inclusive impact assessment*. Conference of Parties to the Convention on Biological Diversity.
- UNEP, 2006b. Addressing Land-based Activities in the Western Indian Ocean. Report of the First Meeting of the Environmental Impact Assessment (EIA) Regional Task Force. UNEP/GEF/WIO-LaB/EIA.1/06
- UNEP, 2007a. Addressing Land-based Activities in the Western Indian Ocean. Report of the Second Meeting of the Regional Task Force on Environmental Impact Assessment (EIA). UNEP/GEF/WIO-LaB/EIATF.2/07.
- UNEP, 2007b. Addressing Land-based Activities in the Western Indian Ocean. Report of the 3<sup>rd</sup> Meeting of the Environmental Impact Assessment (EIA) Regional Task Force. UNEP/GEF/WIO-LaB/EIA.3/07
- UNEP (2010): Regional synthesis report on the review of the policy, legal and institutional frameworks in the Western Indian Ocean (WIO) region. UNEP/Nairobi Convention, 109p.

Walmsley, B and K Tshipala (2007) "Handbook on Environmental Assessment Legislation in the SADC Region." Development Bank of Southern Africa and the Southern African Institute for Environmental Assessment. In press.

World Resources Institute in collaboration with United Nations Development Programme, United Nations Environment Programme, and the World Bank (2005). *World Resources 2005: The Wealth of the Poor – Managing Ecosystems to Fight Poverty*. Washington DC: WRI.