

## 14.1 Constitutional Requirements for Environmental Protection in Tanzania

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. 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.<sup>1</sup>”*

Environmental management in Tanzania falls under the Vice-President's Office. The mission of the Vice-President's Office in relation to the environment 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.”*

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 environment as well as the necessary environmental safeguards.

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<sup>1</sup> Government of the United Republic of Tanzania, 1998. The Constitution of the United Republic of Tanzania. Dar es Salaam.

## 14.2 Institutional and Administrative Structure for EIA in Tanzania

### 14.2.1 Division of Environment

The Division of Environment (DoE) has the following overall functions:

- Formulation of policy on environment
- Co-ordination and monitoring of environmental issues
- Environmental planning
- Policy-oriented environmental research.<sup>2</sup>

The DoE has been responsible for the formulation of a number of national plans and strategies:

- National Environmental Action Plan, 1994
- National Plan for Agenda 21, 1993
- National Action Programme to Combat Desertification, 1999
- National Biodiversity Strategy and Action Plan, 2000
- Coastal Biodiversity Conservation Strategy, 1995
- Country Programme to phase out ozone depleting substances, 1996
- National Action Plan on Climate Change, 1997.

One of the agencies under the DoE is the National Environment Management Council.

### 14.2.2 National Environment Management Council

The National Environment Management Council (NEMC) was initially established in 1983 in terms of the National Environment Management Council Act, No 19 of 1983. Its composition, powers and functions have been re-articulated in Part III(d) of the Environmental Management Act of 2004. The NEMC is a corporate body with all the legal powers of such. The NEMC falls under the Vice-President's Office and its role is to provide the Vice-President's Office with advice on all matters pertaining to environmental conservation and management.

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<sup>2</sup> [www.tanzania.go.tz/environmental.html](http://www.tanzania.go.tz/environmental.html)

Its objectives are to undertake the enforcement, compliance, review and monitoring of environmental impact assessment (EIA), including the facilitation of the public participation process in environmental decision-making.

The mandate of the NEMC is as follows:

- To enforce and ensure compliance of the national environmental quality standards;
- To review of Environmental Impact Statements (EIS) and conduct environmental monitoring and auditing of projects and facilities;
- To undertake and co-ordinate research, investigation and surveys in the field of environment and collect, and disseminate information;
- To carry-out research and surveys for the proper management and conservation of environment;
- To render advise and technical support to entities engaged in natural resources and environmental management;
- To initiate and evolve procedures and safeguards for the prevention of accidents which may cause environmental degradation;
- To enhance environmental education and public awareness; and establish and operate national environmental information system for sound environmental management;
- To publish and disseminate manuals, codes and guidelines relating to environmental management and prevention or abatement of environmental degradation;
- To issue restoration and recommend for easements orders, and save prohibition notice,
- To undertake any other functions such as Integrated Coastal Zone Management (ICM).<sup>3</sup>

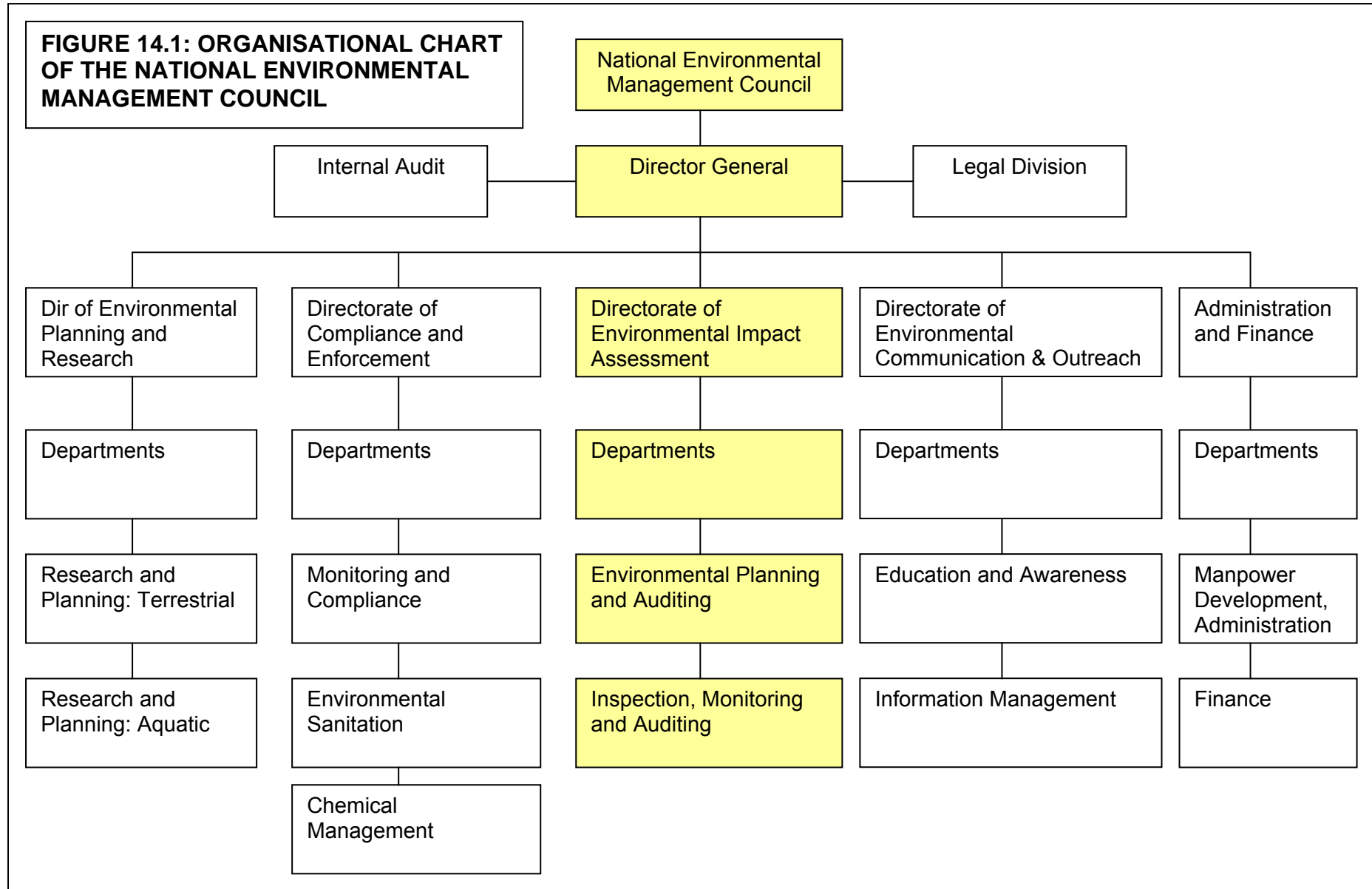
NEMC has more than 50 qualified technical staffs in various environmental disciplines. It is headed by Director General who is assisted by Directors, Technical and Supporting Staff under the guidance of the Council (Figure 14.1).

### **14.2.3 Directorate of Environmental Impact Assessment**

The Directorate of Environmental Impact Assessment (DEIA) focuses on the review of environmental soundness of projects, plans, programmers and plans and aids informed decision making towards achieving sustainable socio-economic development and ecological sustainability.

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<sup>3</sup> [www.nemctan.org](http://www.nemctan.org)



The DEIA was established in order to ensure that environmental issues regarding developmental projects/activities, plans, programmes and policies in all sectors of the economy are integrated and taken into account early in planning and designing phases with a view of minimizing negative impacts and achieving sustainable development.

The DEIA is responsible for:

- Reviewing and approval of Environmental Impact Statements (EIS) reports;
- Building EIA capacity at District level by conducting EIA training;
- Creating and raising public awareness on the role of EIA;
- Conducting site inspection/verification visits;
- Managing EIA database and network development;
- Conducting Environmental monitoring and auditing.<sup>4</sup>

#### **14.2.4 Inter-sectoral Co-operation**

Inter-sectoral co-operation is achieved through the establishment of an environmental section in each line ministry, headed by a Sector Environmental Co-ordinator.<sup>5</sup> Each Environmental Section is responsible for:

- Ensuring compliance by the line ministry with the EMA;
- Ensuring all environmental matters contained in other laws falling under the jurisdiction of the sector Ministry are implemented and reported to the NEMC;
- Liaising with the NEMC on all environmental matters in order to achieve co-operation and shared responsibility for environmental governance.

Of specific relevance to the administration of EIA, the sectoral ministries and local authorities must:

- Provide relevant policies, regulations legislation etc. and other relevant information to proponent;
- Collaborate in evaluation of registration forms and project briefs;
- Participate in the identification of key issues in the scoping process;
- Collaborate in the review of the TOR, consultations during EIA study, internal review for comments on the EIS;
- Participate in the review mechanism put in place by the reviewing authority as necessary;
- Undertake monitoring of project implementation.<sup>6</sup>

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<sup>4</sup> www.nemctan.org

<sup>5</sup> S. 33(1) of the EMA.

<sup>6</sup> EIA Guidelines

## 14.2.5 Government of Zanzibar

Environmental governance in Tanzania is complicated by the existence of two different types of legislation for the Zanzibar Islands and the Tanzanian Mainland. Although Tanzania is a federal state comprising Tanzania Mainland and Zanzibar, the latter maintains administrative independence in most of its government matters. The National Assembly of the United Republic of Tanzania, which includes members from Zanzibar, legislates on all matters such as foreign affairs, finance, defence, immigration and citizenship. All other matters concerning Zanzibar are within the exclusive jurisdiction of the Zanzibar Government and its legislative body, the House of Representatives. The relevant government institutions responsible for environmental management in Zanzibar are shown in Table 14.1.

**Table 14.1: Government Institutions Dealing with Different Aspects of the 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

## 14.3 Policy and Legal Framework for EIA

### 14.3.1 National Environmental Action Plan

The then-named Ministry of Tourism, Natural Resources and Environment took the first step towards incorporating environmental concerns into national planning and development in Tanzania, with the publication of the National Environmental Action Plan in 1994<sup>7</sup>. The NEAP identified the following six major national issues in need of urgent attention:

- land degradation,
- access to good quality water,
- pollution,
- loss of wildlife habitats and biodiversity,
- deterioration of marine and freshwater systems, and
- deforestation.

<sup>7</sup> Government of the United Republic of Tanzania, 1994. "National Environmental Action Plan: A First Step". Ministry of Tourism, Natural Resources and Environment, Dar es Salaam.

The NEAP laid the foundation for the National Environmental Policy.

### **14.3.2 National Environmental Policy**

The National Environmental Policy (NEP), adopted in 1997, 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<sup>8</sup>. The NEP 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 co-operation 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.

### **14.3.3 Environmental Management Act**

The National Environmental Management Act, No 19 of 1983 started the process of regulating environmental management in Tanzania. Although draft EIA guidelines and procedures were produced in 1997 and amended in 2003, the country lacked a coherent code of supporting legislation to enable effective environmental management. Therefore a study was initiated with funding from the World Bank, known as the Institutional and Legal Framework for Environmental Management Project.

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<sup>8</sup> Government of the United Republic of Tanzania, 1997. "National Environmental Policy." Office of the Vice-President, Dar es Salaam.

This culminated in the promulgation of the Environmental Management Act (EMA), No 20 in 2004. The EMA repeals the National Environmental Management Act of 1983.

The EMA (2004) specifies detailed measures for protecting ecological processes, the sustainable utilisation of ecosystems, and environmental protection and is organised into the following parts:

Part I	Preliminary Provisions
Part II	General Principles
Part III	Administrative and Institutional Arrangement
Part IV	Environmental Planning
Part V	Environmental Management
<b>Part VI</b>	<b>Environmental Impact Assessment</b>
<b>Part VII</b>	<b>Strategic Environmental Assessment</b>
Part VIII	Pollution Prevention and Control
Part IX	Waste Management
Part X	Environmental Quality Standards
Part XI	Environmental Restoration, Easements and Conservation Orders
Part XII	Analysis and Records
Part XIII	Environmental Information, Education and Research
Part XIV	Public Participation in Environmental Decision Making
Part XV	International Agreements
Part XVI	Compliance and Enforcement
Part XVII	Environmental Appeals Tribunal
Part XVIII	National Environmental Trust Fund
Part XIX	Financial Provisions
Part XX	General and Transitional Provisions

The Act seeks to legalise current environmental policy and harmonise the legislation. Of specific interest for EIA practitioners are Parts VI and VII. The EIA procedures that have to be followed in terms of this Act are described in more detail in section 14.4 of this chapter.

#### **14.3.4 Environmental Impact Assessment and Audit Regulations**

The EIA and Audit Regulations were published in terms of the EMA, 2004 in Government Notice No 349 on 4<sup>th</sup> November, 2005. The Regulations are divided into 12 Parts:

Part I	Preliminary Provisions
Part II	General Prohibition
Part III	Project Registration And Screening
Part IV	The Environmental Impact Assessment
Part V	The Environmental Impact Statement

Part VI	Review Process Of Environmental Impact Statement
Part VII	Decision Of The Minister
Part VIII	Access To Environmental Impact Statements And Information
Part IX	Period Of Validity
Part X	Environmental Audit
Part XI	Monitoring
Part XII	General Provisions.

The regulations also have 4 schedules comprising:

First Schedule	Types of Project Requiring and Requiring EIA
Second Schedule	Project Screening Criteria
Third Schedule	Forms for EIA
Fourth Schedule	Steps for Conducting EIA.

The regulations set out in detail the process to be followed in conducting an EIA, the form and content of EIAs, the review process, decision making processes and appeals. The EIA steps are elaborated upon in section 14.4 of this Chapter.

### **14.3.5 Zanzibar Environmental Management for Sustainable Development Act**

This Act was developed in 1996 with the objectives of protecting and managing the country's environmental assets such that their capacity to sustain development is unimpaired and Zanzibar's rich environmental endowment is available for present and future generations to enjoy and use. Conservation and sustainable management of indigenous species of Zanzibar, which are rare and endemic, are emphasised in this Act.<sup>9</sup>

### **14.3.6 Permits and Licences**

An activity listed in the First Schedule of the EIA and Audit Regulations (see also Appendix 14-1 of this chapter) cannot proceed without obtaining the necessary licence from the relevant licensing authority (line ministry). The licensing authority however, will not issue a licence without having first received an **Environmental Impact Assessment Certificate** from NEMC. The EIA Certificate can be transferred from one holder to another in the event that the ownership of the project changes hands. However, the NEMC must be informed of the transfer within 30 days<sup>10</sup> and all the necessary forms must be completed (see Forms 7 and 8 in the Third Schedule of the EIA and Audit Regulations). The developer must commence with his authorised development within 3 years, otherwise he will have to re-register with the NEMC.

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<sup>9</sup> Foun, OH and FK Ali. "Conservation of Biodiversity: A Case Study of Zanzibar, Tanzania."

<sup>10</sup> Section 84(2) of the EMA.

Developers are encouraged to consult the line ministry responsible for their sector project regarding other permitting and licensing requirements (see also Table 14.13).

### 14.3.7 Offences and Penalties

A range of offences and penalties is set out in Part XVI of the EMA. Those relating to EIA and environmental standards are listed in Table 14.2 below.

**Table 14.2: Offences and Penalties Relating to EIA and Environmental Quality**

Relevant section of EMA	Infringement	Penalty
184	Failure to submit a Project Brief, EIA or making a false statement in an EIA	0.5 -10 million Shillings and/or imprisonment for 2-7 years
186	Contravention of any environmental standards or guidelines where no specific penalty is prescribed	2 – 10 million Shillings and/or imprisonment for 2-7 years
187	Causing pollution contrary to the provisions of the EMA	3 – 50 million Shillings and/or imprisonment for up to 12 years, AND the full cost of clean up of the polluted environment
191	General penalty for non-compliance with any provision in the Act for which no specific penalty is prescribed	50,000 – 50 million Shillings and/or imprisonment for 3 months to 7 years

### 14.3.8 Fees

The regulations make mention of prescribed fees to accompany the various applications to be made in terms of the EIA process and developers are requested to contact the NEMC to ensure that they are informed of the correct fees to be paid for each step. Fees are also required to access Council records of decision, EIS documents and the register of EIA practitioners.

The developer is responsible for all professional fees, costs and expenses associated with the preparation of an environmental impact study (EIS).

### 14.3.9 Guidelines

The EIA Guidelines and Procedures are intended primarily for various stakeholders in the EIA process. They explain how the requirements for EIAs for main projects should be incorporated into the project approval process in Tanzania.

The Guidelines will eventually become integrated into the Regulations and will be part of the body of environmental law addressing environmental management in the country. The Guidelines are in the form of a guide book comprising three parts:<sup>11</sup>

<sup>11</sup> [www.nemctan.org/eiaguide.htm](http://www.nemctan.org/eiaguide.htm)

Part I explains the procedures which apply to projects which fall within the scope of schedule 1 projects (projects requiring EIA), and schedule 2 projects (projects which may or may not require EIA). It also provides details for obligations and responsibilities in the EIA process.

Part II accounts for various stages necessary in the EIA procedure and gives detailed guidelines for these stages. These are: Registration guidelines, Screening guidelines, Scoping guidelines, EIA report writing guidelines and requirements, Review guidelines and Monitoring guidelines.

Part III contains annexures relevant to the EIA process and procedures, including:

- List of projects for which mandatory EIAs are required (see also Appendix 14-1 of this handbook);
- A list of projects which may or may not require an EIA (see Appendix 14-2);
- Model ToRs for an EIA;
- Explanation of the review criteria that will be applied by the authorities;
- A general checklist of environmental characteristics;
- Guidance on how to submit an Environmental Assessment registration form;
- A list of relevant authorities to be consulted;
- EIA procedures and flow diagrams.

In addition, guidelines have been developed for several sectors as shown, with their status, in Table 14.3.

**Table 14.3: Sector EIA Guidelines**

Guidelines for Sector	Status
Roads (2005)	Being tested
National Parks	In use
Marine Parks and Reserves	Finalised
Mariculture development	Inclusion of EIA in sector's own guidelines
Coastal tourism	Inclusion of EIA in sector's own guidelines

### 14.3.10 Environmental Standards

In terms of s.140(1) of the EMA, the National Environmental Standards Committee of the Tanzanian Bureau of Standards (TBS) is required to develop, review and submit proposals for environmental standards relating to: water quality, discharge of effluent, air quality, noise and vibration, sub-sonic vibration, ionising and other radiation, soil quality, noxious smells, light pollution, electro-magnetic waves and microwaves.

The work of preparing the different standards is carried out by the Environmental Management Divisional Standards Committee (EMDC) of the TBS, which is a cross-section of various stakeholders chaired by Vice President's Office. According to EMA 2004, as well as the Standards Act, the procedures of preparing national standards involve input from stakeholders. Since the EMDC

comprises a limited number of members, draft standards approved by EMDC are floated for public comments prior to their finalisation. The approval stage comes only after collating all public comments.

Because of the diversity of the various standards needed to manage the environment, the EMDC has formed a number of sub-committees also known as Technical Committees (TC) to elaborate the work of drafting the various standards. These TCs are normally chaired by the respective sectoral ministry or relevant lead agency. The Tanzania Bureau of Standards provides the secretariat services.

The National Environmental Standards Compendium (NESC) is a collection of various standards divided into three parts. Part 1 comprises standards that require compulsory compliance. Compulsory standards are categorized as generic or specific. Specific standards cover those industries with peculiar effects to the environment while other industries without a specific standard are regulated by generic standards. These standards are listed in Tables 14.4 to 14.11 below.

Part 2 of NESC contains those standards that may be implemented on voluntary basis. These include guideline standards, codes of practice, and other such standards that may not necessarily be directly enforced, but whose results are implied in some legal requirements. One such standard is the Environmental Management Systems (EMS) standard, like TZS 701/ISO 14001 whose compliance specifications include the relevant legal requirements. Part 2 thus has important requirements for companies and developers who wish to demonstrate their commitment to sustainable development by way of self regulation. Part 2 also includes standards used in evaluating environmental performance.

Part 3 has the requisite test methods that should be followed when testing for compliance. The test methods included are referred to in at least one of the specification standards appearing under Part 1.

Standards have been developed for industrial effluents, drinking water, air quality and noise. These are listed in Tables 14.4 to 14.11 below.

**Table 14.4: Permissible limits for municipal and industrial wastewaters**

Parameter	Limit*
BOD at 20°C	30
COD	60
Colour	300 TCU
pH range	6.5-8.5 units
Temperature range	20-35°C
Total suspended solids (TSS)	100
Turbidity	300 NTU
Aluminium (as Al)	2.0
Arsenic (As)	0.2
Barium (Ba)	1.5
Cadmium (Cd)	0.1
Chromium (total)	1.0
Chromium (hexavalent)	0.1
Chlorides (Cl)	200
Cobalt (Co)	1.0

Parameter	Limit*
Copper (Cu)	2.0
Fluorides (F)	8
Iron (Fe)	5.0
Lead (Pb)	0.1
Manganese (Mn)	5.0
Mercury (Hg)	0.005
Nickel (Ni)	0.5
Nitrates (NO <sub>3</sub> )	20
Phosphorus Total (as P)	6
Selenium (Se)	1.0
Silver (Ag)	0.1
Sulphate (SO <sub>4</sub> )	500
Sulphides (S)	1
Tin (Sn)	2.0
Total Kjeldahl Nitrogen (as N)	15
Vanadium (V)	1.0
Zinc (Zn)	5.0
1,1,2 - Trichloroethane	0.06
1,1,1 -Trichloroethane	3.0
1,2 - Dichloroethylene	0.2
1,2 – Dichloroethane	0.04
1,3 – Dichloropropene	0.2
Alkyl benzene sulphonate (ABS)	0.5
Aromatic nitrogen containing compounds (e.g., aromatic amines)	0.001
cis-1, 2- Dichloroethylene	0.4
Dichloromethane	0.2
Oil and grease (fatty matter and hydrocarbons)	10
Organochlorine pesticides (Cl)	0.0005
Other aromatic and/or aliphatic hydrocarbons not used as pesticides	0.05
Pesticides other than organochlorines	0.01
Phenols	0.002
Tetrachloroethylene	0.1
Tetrachloromethane	0.02
Trichloroethylene	0.3
Total Coliform Organisms	10,000 counts/100ml

\* all units in mg/l except where indicated

**Table 14.5: Specific tolerances for effluents from various industries**

Parameters	Tolerance limits*		
	Chrome Tanning	Vegetable Tanning	Fertiliser Industry
Chlorides (as Cl), <i>max.</i>	1000	1000	-
Biochemical oxygen demand for 5 days at 20°C, <i>max.</i>	30	30 (up to 100)	-
Hexavalent chromium as (Cr), <i>max.</i>	0.1	-	-
pH	5.5 – 9.0 units	5.5 – 9.0 units	5.5 – 9.0 units
Suspended solids, <i>max.</i>	-	100	-
Colour and odour	-	absent	-
Dissolved phosphate (as P), <i>max.</i>	-	-	5
Dissolved fluorides (as F), <i>max.</i>	-	-	15

\* all units in mg/l except where indicated

Table 15.6: Drinking water standards

Parameter	Lower Limit*	Upper Limit*
Lead (Pb)		0.1
Arsenic (As)		0.05
Selenium (Se)		0.05
Chromium (Hexavalent) (Cr)		0.05
Cyanide (CN)		0.20
Cadmium (Cd)		0.05
Barium (Ba)		1.0
Mercury (Hg)		0.001
Fluoride (F)	1.5	4.0
Nitrate (NO <sub>3</sub> )	10.0	75.0
Colour	1.5 TCU	50 TCU
Turbidity	5 NTU	25 NTU
Taste	Not objectionable	
Odour	Not objectionable	
pH	6.5 units	9.2 units
Total filterable residue	500	2000
Total hardness as CaCO <sub>3</sub>	500	600
Calcium (Ca)	75	300
Magnesium (Mg)	50	100
Magnesium + Sodium	500	1000
Sulphate (SO <sub>4</sub> )	200	600
Chloride (Cl)	200	800
Iron (Fe)	0.3	1.0
Manganese (Mn)	0.1	0.5
Copper (Cu)	1.0	3.0
Zinc (Zn)	5.0	15.0
BOD (5 days at 30°C)	6.0	6.0
Absorbed Oxygen (as KMNO <sub>4</sub> )	10	20
Ammonium, (NH <sub>3</sub> + NH <sub>4</sub> )	2.0	2.0
Total Nitrogen (excluding NO <sub>3</sub> )	1.0	1.0
Surfactants (Alkyl Benzyl Sulphonates)	1.0	2.0
Organic matter (as Carbon in Chloroform extract)	0.5	0.5
Phenolic substances (as Phenol)	0.002	0.002
Gross alpha activity		0.1 Bq/l
Gross beta activity		0.1 Bq/l

\* All units in mg/l except where shown otherwise

Table 14.7: Ambient air quality standards

Pollutant	Guideline	Limit Level
Sulphur oxides, SO <sub>x</sub>	Annual mean of 40 – 60 µg/Nm <sup>3</sup> (0.05 – 0.08 mg/kg) or 24 hour average 100 µg/Nm <sup>3</sup> (0.129 mg/kg)	Daily average of hourly values shall not exceed 0.1 mg/kg  0.5 mg/Nm <sup>3</sup> for 10 minutes
Carbon monoxide, CO	Aims at preventing carboxyhaemoglobin levels exceeding 2.5 – 3% in non-smoking people	A maximum permitted exposure of 100 mg/Nm <sup>3</sup> for periods not exceeding 15 minutes.  Time-weighted exposure at the following levels: <ul style="list-style-type: none"> <li>• 100mg/Nm<sup>3</sup> for 15 minutes</li> <li>• 60 mg/Nm<sup>3</sup> for 30 minutes</li> <li>• 10 mg/Nm<sup>3</sup> for 8 hrs</li> </ul> or Daily average of hourly values

Pollutant	Guideline	Limit Level
		shall not exceed 10 mg/kg and average of hourly values in eight consecutive hours shall not exceed 20 mg/kg.
Black smoke and suspended particulate matters (PM10)	Black smoke: 40 to 60 $\mu\text{g}/\text{Nm}^3$ (0.05-0.08 mg/kg) PM10: 60 to 90 $\mu\text{g}/\text{Nm}^3$ (0.05 – 0.116 mg/kg)	Daily average of hourly values shall not exceed 0.10 $\mu\text{g}/\text{Nm}^3$ and hourly values shall not exceed 0.20 $\mu\text{g}/\text{Nm}^3$
Nitrogen dioxide (NO <sub>x</sub> )	Annual mean of 0.1 $\mu\text{g}/\text{Nm}^3$	150 $\mu\text{g}/\text{Nm}^3$ for 24–hours average value  120 $\mu\text{g}/\text{Nm}^3$ for 8 hours
Lead	Annual mean of 0.5 – 1.0 $\mu\text{g}/\text{Nm}^3$	1.5 $\mu\text{g}/\text{Nm}^3$ for 24–hours average value
Ozone	Annual mean of 10 – 100 $\mu\text{g}/\text{Nm}^3$	120 $\mu\text{g}/\text{Nm}^3$ for 8-hours average value

Table 14.8: Air quality emission limits

Pollutant	Guideline	Limit Level
Sulphur oxides, SO <sub>x</sub>	Large Combustion Plants (LCP) using <i>solid</i> fuel with thermal effect of: 50 to 100 MWth 100 to 300 MWth >300 MWth  LCP using <i>liquid</i> fuel with thermal effect of: 50 to 100 MWth 100 to 300 MWth >300 MWth  LCP using <i>gaseous</i> fuel  LCP using <i>low calorific gases</i> from gasification of refinery residues, coke oven gas, blast-furnace gas	850 mg/Nm <sup>3</sup> 200 mg/Nm <sup>3</sup> 200 mg/Nm <sup>3</sup>  850 mg/Nm <sup>3</sup> 400 to 200 mg/Nm <sup>3</sup> (linear decrease) 200 mg/Nm <sup>3</sup>  35 mg/Nm <sup>3</sup>  800 mg/Nm <sup>3</sup>
Carbon monoxide, CO	<i>Liquid</i> fuel combustion with heat output exceeding 5MW  <i>Solid</i> fuel combustion with the heat output exceeding 50 MW	Not to exceed 175 mg/Nm <sup>3</sup>  Not to exceed the level of 250mg/Nm <sup>3</sup>
Hydrocarbon (as Total Organic Carbon)		Not to exceed 20 mg/Nm <sup>3</sup>
Dust	Inert dust, including cement	Not to exceed 250 mg/Nm <sup>3</sup> (24 hour mean value)
Nitrogen Oxides * (NO <sub>x</sub> )	LCP using <i>solid</i> fuel with thermal effect of: 50 to 500 MWth >500 Mwth  LCP using <i>liquid</i> fuel with a thermal effect of: 50 to 500 MWth >500 Mwth	Yearly average of:  600 mg/Nm <sup>3</sup> 500 mg/Nm <sup>3</sup>  450 mg/Nm <sup>3</sup> 400 mg/Nm <sup>3</sup>

Pollutant	Guideline	Limit Level
	LCP using <i>gaseous</i> fuel with a thermal effect of:  50 to 500 MWth >500 Mwth	300 mg/Nm <sup>3</sup> 200 mg/Nm <sup>3</sup>
Lead		Not to exceed 5 tonne/year of lead or lead compounds (measured as elemental lead) by a stationary source

**Table 14.9: Maximum permissible levels for general environmental noise**

Facility	Noise Limits dBA (Leq)	
	DAY	NIGHT
Any building used as a hospital, convalescence home, home for the aged, sanatorium, and learning institutions, conference rooms, public library, and environmental and recreational site.	45	35
Residential buildings	50	35
Mixed residential (with some commercial and entertainment)	55	45
Residential and Industry / small scale production and commerce	60	50
Industrial areas	70	60

**Table 14.10: Maximum permissible noise levels (continuous / intermittent noise) from a factory / workshop**

Sound Levels (Leq dBA)	Duration (Daily)	Duration (Weekly)
85	8.00 hours	40.00 hours
88	4.00 hours	20.00 hours
91	2.00 hours	10.00 hours
94	1.00 hours	5.00 hours
97	30.00 minutes	2.50 hours
100	15.00 minutes	1.25 hours
103	7.50 minutes	37.5 minutes
106	3.75 minutes	18.75 minutes
109	1.87 minutes	9.37 minutes

**Table 14.11: Maximum permissible noise levels for impact or impulsive noise**

Sound Level (dBA L <sub>max</sub> )	Permitted number of impulses or impacts per day
140	100
130	1000
120	10000

**Table 14.12: Maximum permissible sound levels for mines and quarries**

Facility	Limit value in dBC
For any building used as a hospital, school, convalescence home, home for the aged / residential building	109 dBC
For any building in an area used for residential and one / more of the following purposes:  Commerce, small-scale production, entertainment, or any residential apartment in an area that is used for purpose of industry, commerce or small-scale production	114 dBC

### 14.3.11 Certification of Consultants

Section 83 of the EMA makes provision for regulations to be made regarding the registration of environmental consultants. The Act requires EIAs to be conducted only by experts or firms of experts whose names and qualifications are registered as such by the NEMC. The Environmental (Registration of Environmental Experts) Regulations, 2005, published in Government Notice No 348 of 2005, set out the objectives of the certification process, the establishment of the Environmental Experts Advisory Committee, the certification process for environmental experts, the registration process, the code of practice and disciplinary procedures.

In order to conduct an EIA or carry out an environmental audit in Tanzania, the environmental practitioner must be certified as an environmental expert. Applications to the NEMC must be made on the form presented in the First Schedule of the Environmental Experts Regulations, together with the required documentation relating to the applicant's qualifications and three references. The Council will make a decision on whether to grant an Environmental Experts Certificate within **60 days** of the date of application and the applicant will be notified within **14 days** of the decision. Once an environmental expert has been certified and has paid the prescribed fee, his/her name will be entered onto a Register of Environmental Experts.

NEMC will register foreign consultants if they can:

- Provide proof of certification or accreditation from other competent certification bodies;
- Demonstrate that they have at least 5 years experience in conducting EIAs;
- Provide two abstracts of previous EIAs or audits conducted during the last 3 years;
- Provide a CV and at least 3 references, one of whom is registered in Mainland Tanzania; and
- Pay the prescribed fee.

If the NEMC is satisfied with the competence of the foreign environmental expert, it shall issue a Certificate, which shall only be valid for the duration of the specific EIA or audit of the assignment. The Regulations do not specify a time limit for granting a certificate to a foreign consultant, but it should be assumed that the same timeframe as that applied to local consultants will apply i.e. **60 days**.

Consulting firms may apply to be registered as 'Consulting Firms of Environmental Experts'. To qualify, consulting firms must have at least one certified and registered environmental expert and two specialists from different specialisations. If the firm wants to undertake EIAs and environmental audits, they must make two separate applications. The firm's application must be made on the application form contained in the First Schedule of the Environmental Experts Regulations, together with a list of the names of the persons in the company that have been certified and registered, and the kinds of expertise that the firm intends to offer regarding EIAs and/or audits. The Certificate granted to a firm must be renewed annually upon the payment of the prescribed fee.

All Certified Environmental Experts will be subject to the Code of Practice and Professional Ethics as prescribed in the Fifth Schedule of the applicable regulations.

## 14.4 EIA Procedural Framework in Tanzania

The steps required are outlined in the following sub-sections and are shown schematically in Figure 14.2.

### 14.4.1 EIA Registration

The Environmental Impact Assessment Registration Form is designed to provide enough relevant information to enable NEMC, Environmental Units of sector ministries and Local Authorities to set an appropriate level of assessment for a proposal referred to it. Failure to provide detailed information in a comprehensive manner may delay the assessment process. It is not expected that this form will be appropriate for all purposes and, depending on the nature of the proposal, a detailed document may be necessary in addition to this form. Guidance for completing the Registration Form is provided in Part III of the EIA Guidelines and Procedures document. The applicant is also required to submit a proposal with some basic facts about the project, its location, the services required and the general characteristics of the environment. This information is used in screening (see below).

### 14.4.2 Screening

Screening is the process of classifying a proposal to determine the level at which environmental assessment will be carried out. It is the first stage conducted in the impact assessment process after registration of a project proposal. Screening is undertaken using information on the registration form and/or additional information provided from the submitted proposal.

NEMC is responsible for screening projects. Projects of national interest or highly risky and contentious projects with potentially serious and multi-dimensional environmental concerns shall be screened by the NEMC, while the more localized projects shall be screened by the local authority

where the project is situated, under the guidance of the NEMC. No projects shall be screened or subsequently reviewed by sector ministries. The sector ministries shall have representation in the cross-sectoral Technical Review Committee.

The screening procedure (Figure 14.2) shall lead to one of the following decisions:

- Environment Impact Assessment is required where the project is known to have significant adverse environmental impacts.
- Preliminary environmental assessment is required where the project may have environmental impacts.
- Environmental Impact Assessment is not necessary where the project is unlikely to cause significant environmental impacts.
- No further consideration at all for projects contravening government policies or other legal obligations.

EIA is mandatory for projects that are known from previous experience to have the potential of causing significant impacts on the environment. They are listed in the First Schedule of the EIA and Audit Regulations (see also Appendix 14-1). EIA is also mandatory for projects to be developed within or near Environmentally Sensitive and or Critical Areas (ESA). These are areas that are known from experience to be fragile or valuable environments that can easily be harmed by the effects of the development. A list of ESAs is given in Appendix 14-3 of this handbook and in the EIA Guidelines.

The following criteria will be taken into account while conducting screening to determine whether an EIA is required or not: key project parameters, affected areas, and the importance and scale of impacts on the environment and the likely degree of public opposition. Guidance on each of these criteria is provided in the EIA Guidelines.

Following the screening procedure a screening report must be prepared and presented to the proponent **within 30 days** from the date of registration.

### **14.4.3 Scoping and Terms of Reference**

Scoping is defined as a consultative procedure that culminates in the determination of the extent and approach to an Impact Assessment study. It is a procedure, which follows once the screening report, indicates that the undertaking will result in significant adverse impacts and will thus require an Impact Assessment to be undertaken. It is an early and open process for determining the scope of issues related to the proposed action.

As communities are comprised of many interest groups with conflicting objectives e.g. men and women because of their different rights and responsibilities, educated young people versus elder traditional people; economic groups etc., the role of the public consultation in EIA should not be to suppress these differing views but to provide a mechanism for identifying and trying to solve the implementation in a constructive way.

Public consultation can be undertaken during:

- The preparation of EIA terms of reference;
- The preparation of the EIA report;
- Review of EIA report;
- The preparation of terms and conditions for EIA acceptance or approval.

The objectives of scoping are:

- To provide an opportunity for the proponent, his or her consultants, the relevant authorities, and interested and affected parties in a project area to exchange information and express their views and concerns regarding the proposal before an Impact Assessment is undertaken;
- To focus the study on reasonable alternatives and relevant issues to ensure that the resulting Impact Assessment is useful to the decision-maker and address the concerns of interested and affected parties;
- To facilitate an efficient assessment process that saves time and resources and reduces costly delays, which could arise where consultation had not taken place;
- To determine the Terms of Reference (TOR) and boundaries of the EIA study;

The proponent and his or her consultants has the final responsibility for scoping. The proponent may consult NEMC for advice regarding the identification of a competent consultancy.

A scoping program prepared by those responsible should indicate the following:

- the authorities and public that are likely to be concerned (i.e. stakeholders);
- the method(s) by which the stakeholders will be notified;
- the methods which will be used to inform them of the proposal and solicit comments;
- the stage(s) of the assessment process at which opportunities will be provided for public input.

The proponent or his consultant must prepare a written report on the results of the scoping exercise. This will serve as a record for interested and affected parties and as guidelines for the impact assessment evaluation. The scoping report should at least indicate:

- how scoping was undertaken;
- how the public was involved;
- how the authorities, interested and affected parties were consulted, including dates and summaries of issues raised;
- alternatives which should be examined in the Impact Assessment;

- the issues of concern;
- the specific guidelines for undertaking and preparing the Impact Assessment.

Following an identification of key environmental issues of concern and how various stakeholders will be involved, the proponent or his consultant prepares the Terms of Reference (ToR) for the EIA. First the proponent will prepare a draft ToR and submit fifteen (15) copies to NEMC. The ToR should be accompanied by the scoping report. The ToR should be able to provide formal guidance for practitioners on the range of issues that must be addressed in the EIA process. They should also form a basis for the subsequent review process.

The ToR must indicate that the Environmental Impact Statement should include:

- a description of the proposed undertaking and an analysis of the need or reason for the undertaking;
- the objective of the undertaking;
- other options for carrying out the undertaking;
- alternatives of the undertaking;
- a description of the present environment that would be affected directly or indirectly;
- a description of the future environment predicting its condition if the undertaking did not take place;
- the impacts that may be caused to the environment by the undertaking;
- proposed measures to prevent or mitigate all adverse impacts;
- an evaluation of opportunities and constraints to the environment of the undertaking;
- a proposal for an environmental management programme to cover constructional, operational and decommissioning stage of the undertaking;
- a proposal for environmental monitoring; and
- a proposed programme for public information.

The ToR should be submitted to NEMC for approval. Where necessary a visit to the site(s) will be made. The outcome of the review of the ToR should be communicated to the proponent within a period not exceeding **thirty (30) days**. A model EIA ToR is provided in Appendix 3 of the EIA Guidelines.

Upon approval of the ToR, the environmental investigation and preparation of EIS can follow immediately.

#### **14.4.4 Environmental Impact Statement**

The EIA is to be prepared in accordance with Part VI of the EMA, 2004 and Parts IV and V of the EIA and Audit Regulations. Prior to submitting the EIS to the NEMC, the consultant shall consult the relevant authorities, agencies or organisations listed in Table 14.13 below.

**Table 14.13: Relevant authorities to be consulted while preparing the EIS**

Description of development	Consultee
Development likely to affect land in cities, municipalities and Towns/Urban areas	The urban planning authorities concerned
Development likely to affect rural land, other than land in National Parks, conservation land, and protected land	The local authorities concerned
Development likely to affect land in National Parks, conservation authorities and reserve land	The Ministry of Natural Resources and Tourism, Tanzania National Parks Authority, Conservation Area Authorities.
Development involving the manufacture, processing, keeping, or use of hazardous substances in such circumstances that there will at any one time be, or is likely to be, a notifiable quantity of such substance in, on, or under any land	The Ministry of Health, The Chief Government Chemist
Development likely to result in a material increase in the volume or material change in the character of traffic.	The Ministry of Transport and Communication, Ministry of Home Affairs.
Development likely to result in a material increase in the volume, or material change in the character of traffic entering or leaving a classified or proposed road	The Ministry of Works, Tanzania Roads Authority (TANROADS), Ministry of Home Affairs.
Development likely to prejudice the improvement or construction of a classified or proposed road	The Ministry of Works, TANROADS
Development involving the formation, laying out or alteration of any means of access to a highway (other than a trunk road)	The local Authority concerned
Development involving or including mining operations	The Ministry of Energy and Minerals.
Development of land in Urban Authorities involving the demolition in whole or part or the material alteration of a listed building	The Ministry of Natural Resources and Tourism, The Urban Authority concerned
Development involving the carrying out of works or operations in the bed of or on the banks of a river or stream	The Ministry of Water and Livestock Development The local Authority concerned
Development for the purpose of refining or storing mineral oils and their derivatives	The Ministry of Energy and Minerals.
Development involving the use of land for the deposit of refuse or waste	Urban Authorities concerned in the case of urban land or The Local Authorities concerned in the case of rural land
Development relating to retention, treatment or disposal of sewage, slurry or sludge (other than the laying of sewers, the construction of pump houses in a line of sewers, the construction of septic tanks and cesspools servicing single buildings in which no more than ten people will normally reside, work or congregate, and works ancillary thereto)	The local authorities concerned, The Ministry of Water, and Livestock Development
Development relating to the use of land as a cemetery	The Local Authority Concerned

Description of development	Consultee
Development in an area of special scientific interest	The Ministry of Science and Technology, Ministry of Health, The National Scientific Council
Development which is not for agricultural purposes and is not in accordance with the provisions of a development plan and involves: (i) Loss of a substantial amount of agricultural land which is for the time being used ( or was last used) for agricultural purposes; or (ii) Loss of a substantial amount of agricultural land which is for the time being used ( or was last used) for agricultural purposes, in circumstances in which then development is likely to lead to a further substantial loss of agricultural land	The Ministry of Lands and Human Settlements, The local authority concerned , The Ministry of Agriculture and Food, and The Land Use Planning Commission
Development within 250 metres of land which is or has, or at any time in 30 years before the relevant application been used for the deposit of refuse or waste.	The Local Authority concerned, and Ministry of Health

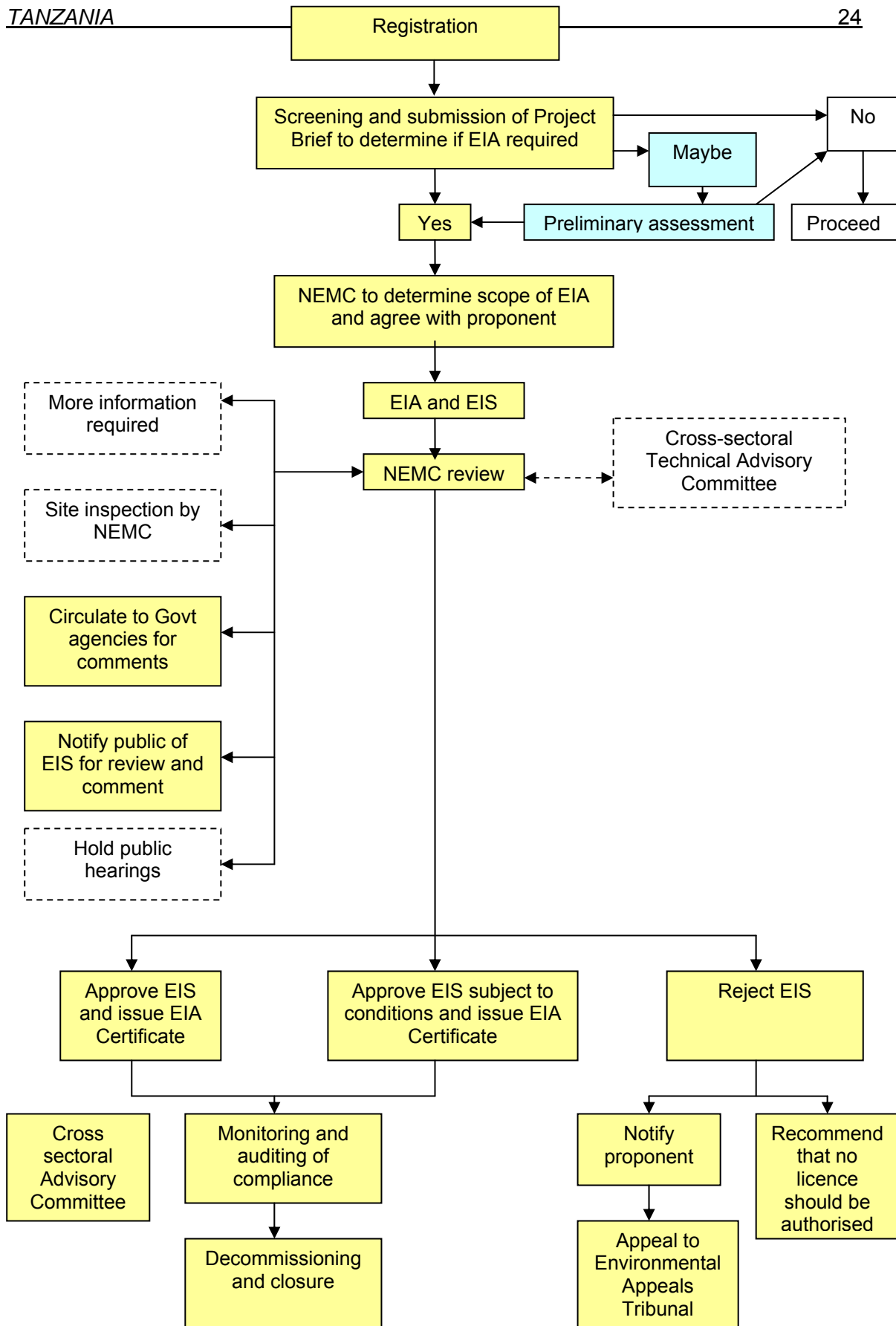
**Note:**

(i) **The National Environment Management Council** may require the proponent or his consultants to consult with the National Consultee(s) or any specific person thereto as it may deem appropriate.

The EIS must address all aspects listed in the Terms of Reference and the EIS must contain at least the following:

- Introduction including the proposed location of the project and a general overview;
- Project description including its objectives, the technology, procedures and processes to be used, materials to be used in construction and operation of the project, the products, by-products and wastes generated by the project and the identification and assessment of project alternatives;
- A concise description of the national policy, administrative and legislative framework;
- A description of the environmental baseline conditions, including specific information necessary for identifying and assessing the environmental effects of the project;
- An assessment of the impacts of the project on the environment, negative and positive, direct and indirect, duration, scale and significance, as well as confidence levels in the predictions;
- Recommended measures to manage or mitigate the environmental impacts;
- An environmental and social management plan;
- An environmental and social monitoring plan;
- Resource evaluation or cost benefit analysis;
- Decommissioning and closure plans;
- Summary and conclusions;
- Appendices including all supporting documentation including details of the public participation process.

Detailed guidance on the report contents may be found in the EIA Guidelines.



**FIGURE 14.2: EIA PROCEDURE**

The EIS must also include an executive summary, and a non-technical study must be prepared in both Kiswhili and English as per the requirements specified in Regulation 18 of the EIA and Audit Regulations, setting out the key findings, conclusions and recommendations of the EIS. The EIS must be signed by all members of the EIA team and once completed, 15 copies plus an electronic copy must be submitted to NEMC, together with Form No 2 (of the Third Schedule) and the prescribed fees for evaluation and review.

#### 14.4.5 Review of Environmental Impact Statement

On completion of the EIS, the developer must submit all the required documentation, including Form No 2 of the Third Schedule of the EIA and Audit Regulations to the NEMC for review. The Council has **60 days** to carry out its review, which includes some mandatory and discretionary activities. These are shown in Figure 14.2 in solid and dashed boxes respectively.

In conducting its review, the Council *may*:

- Set up a cross-sectoral Technical Advisory Committee to assist with the review (s. 87(2));
- Request the proponent to supply additional information (s. 87(3));
- Conduct an inspection and verification visit to the site of the proposed activity at the proponent's cost (s. 88(1));
- Hold public hearings within **30 days** of receiving the EIS (s. 90).

Mandatory tasks of the Council include (s.89(2)):

- Circulation of the EIS for written comments from various institutions and government agencies. The documents must be circulated within **14 days** of receipt by NEMC and the relevant agencies have **30 days** to comment;
- Notification of the public of the availability of the EIS for public review and written comment;
- Solicit oral or written comments from affected parties.

The NEMC's review must be based on the following criteria:

- The balance between short and long term socio-economic benefits of the project and the detriment to the human and physical environment;
- The nature of the project or undertaking and how it is likely to meet environmental standards;
- The possible mitigation alternatives or other remedial measures;
- Comments received during public hearings and other consultative processes during the EIA process;
- Any other criteria as may be prescribed in regulations (s. 88(2)).

Once the NEMC has completed its review, it will make a decision to issue an EIA Certificate, to issue an EIA certificate subject to conditions, or to reject the application, on the basis of the following factors:

- The validity of the EIS, with emphasis on the environmental, economic, social and cultural impacts of the project;
- The comments made by the relevant ministries, institutions and other interested parties;
- The report of the chairman of the public hearing, where applicable;
- Advice of the Director of Environment; and
- Any other factors which may be considered important.

#### **14.4.6 Appeals**

Any party aggrieved by the decision can appeal to the Environmental Appeals Tribunal (EAT) within **30 days** of the decision being made. There is further recourse to the High Court in the event that the aggrieved party does not receive satisfaction at the EAT. The procedures for appeals are set out in Part XVII of the EMA.

#### **14.4.7 Environmental Monitoring**

The NEMC, in consultation with the relevant line ministry or government agency, may undertake inspections to determine the nature and significance of actual impacts on the ground due to the implementation of the project and whether the developer is complying with the required mitigation measures listed in the EIS and/or in the conditions of the EIA Certificate. Persistent non-compliance on the part of the developer could result in the NEMC revoking the EIA Certificate and instituting legal proceedings for any damages which may have occurred as a result of such non-compliance.<sup>12</sup> The monitoring requirements and the form and frequency of providing monitoring reports are set out in detail in Part XI of the EIA and Audit Regulations.

#### **14.4.8 Environmental Audits**

The NEMC is also responsible for carrying out, or commissioning qualified auditors to carry out environmental audits of the development, including an inspection of all documentation relating to *inter alia*, monitoring data, sampling results, specialist reports etc, which may confirm that the developer is in compliance with all conditions and requirements, and that all reasonable measures are being taken to mitigate any unforeseen negative impacts.<sup>13</sup> Audits must be carried out for all projects listed in the First Schedule of the EIA and Audit Regulations within 12 months of the commencement of operations. The frequency of subsequent audits will be determined at the time of the initial audit. The

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<sup>12</sup> Sections 99 and 100 of the EMA.

<sup>13</sup> Section 101 of the EMA.

form of the audit and the contents of the audit report are set out in regulations 51 and 52 respectively of the EIA and Audit regulations.

The audit report must be signed off by the auditors and it is then sent for review by the Cross Sectoral Advisory Committee (see Figure 14.2)

#### **14.4.9 Decommissioning and Release of Environmental Performance Bond**

The proponent is responsible for safe decommissioning of the project, site rehabilitation and ecosystem restoration before a project is closed down. The environmental performance bond, deposited in terms of section 227 of the EMA will not be released until the proponent fulfils all environmental obligations of closure.

#### **14.4.10 Strategic Environmental Assessment**

Strategic Environmental Assessments (SEAs) are required in terms of Part VII of the EMA in the following instances:

- When preparing a Bill which is likely to have an effect on the management, conservation and enhancement of the environment or the sustainable management of natural resources;
- When promulgating regulations, policies, programmes and development plans; and
- When any major mineral or petroleum resource is identified or when a major hydro-electric power station or water project is being planned.

The SEA for a policy, Bill, legislation, strategy, programme or plan must contain the following information:

- A full description of the policy, Bill, legislation, strategy, programme or plan being considered;
- The identification, description and assessment of the positive and negative effects of the implementation of the proposed document on the environment and the sustainable management of natural resources;
- The identification, description and assessment of the likely effects of alternative means to meet the objectives of the proposed instrument;
- The identification, description and assessment of a range of practicable measures that could be taken to avoid, mitigate or remedy any adverse effects that may result from the implementation of the proposed policy, Bill, legislation, strategy, programme or plan being considered.<sup>14</sup>

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<sup>14</sup> Section 104(3) of the EMA.

The SEA for a major mining or petroleum project, hydro-electric power station or water development must be undertaken by the responsible sector ministry. The SEA for such a development must include:

- Baseline environmental conditions and status of natural resources;
- Identification of ecologically sensitive and protected areas;
- Identification and description of communities around the area;
- Existing socio-economic conditions;
- Existing economic activities and infrastructure;
- Proposed developments, including long term scenarios and the cumulative effects of a number of different developments in the same sector;
- Infrastructure and resources required to service these developments;
- Potential environmental and social impacts of the proposed development;
- Recommendations for land reclamation and limitations on development in different areas.<sup>15</sup>

The SEA will be reviewed by the regulatory authorities, who will prepare a report on the adequacy of the SEA and make recommendations to the relevant decision-makers. If favourable, the SEA report will be approved.

## 14.5 Other Relevant Environmental Legislation in Tanzania

Environmental issues cut across a wide variety of sectors and, under the current situation, there are numerous pieces of legislation in Tanzania Mainland and Zanzibar, which have a bearing on the environment and should be considered in EIA decision making. The sectors, titles of the legislative instruments, the responsible agency and the purpose of the legislation are summarised in Table 14.14.

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<sup>15</sup> Section 105(2) of the EMA.

**Table 14.14: Other Potentially Applicable Sectoral Requirements**

Tanzania Mainland	Zanzibar
<p><b>Coastal, fisheries and marine resources</b></p> <ul style="list-style-type: none"> <li>• The Marine Parks and Reserves Act, No 27 of 1994, <i>(includes provisions for Environmental Impact Assessment (EIA))</i></li> <li>• National Fisheries Sector Policy and Strategy Statement, 1997</li> <li>• Fisheries Act, No 22 of 2003</li> <li>• Management Plan for the Mangrove Ecosystem in Tanzania, 1991</li> <li>• The Territorial Sea and Exclusive Economic Zone, 1989</li> <li>• Deep Sea Fishing Authority Act, 1997</li> <li>• Wildlife Conservation Act, No. 12 of 1974, as amended <i>(The Act protects wildlife and vegetation by restricting the utilisation of wildlife to licence-holders. The use of sensitive wildlife habitats is restricted during certain times of the year or for specified periods).</i></li> <li>• Natural Resources Ordinance <i>(The Ordinance created the Natural Resources Board, which is charged with the responsibility of supervising the use and/or exploitation of natural resources.)</i></li> </ul>	<p><b>Coastal, fisheries and marine resources</b></p> <ul style="list-style-type: none"> <li>• The Fisheries Legislation (Revised 1988)</li> <li>• The Wild Animals Protection Decree (Cap. 128)</li> <li>• The Wild Birds Protection Decree (Cap. 129)</li> </ul>
<p><b>Planning and urban development</b></p> <ul style="list-style-type: none"> <li>• Town &amp; Country Planning Ordinance, 1966, Cap. 378 <i>(The Ordinance was intended to establish a land-use planning scheme for designated areas. The National Land Use Planning Commission was established to advise Government on land conservation and development.)</i></li> <li>• The Town and Country Planning Decree (Cap. 85)</li> <li>• National Land Use Planning Commission Act, No 3 of 1984</li> <li>• Land Act, No 4 of 1999.</li> <li>• Village Land Act, No 5 of 1999 <i>(The Act requires each village to identify and register all communal land, and obtain the approval of all members of the village for this identification and registration (Village Assembly, Section 13). A Register of Communal Land (Section 13(6)) is to be maintained by each Village Land Council, and land cannot be allocated to individuals, families, groups for private ownership (Section 12(1)(a)).</i></li> <li>• Regional Administration Act, 1997</li> <li>• Local (District and Urban) Authorities Act, No. 7 of 1982 <i>(Local Authorities are empowered to make by-laws regarding the protection of soil, agriculture, water supplies and other natural resources. The Act contains provisions to protect human health and regulate pollution problems.)</i></li> </ul>	<p><b>Planning and urban development</b></p> <p>The Administrative Authorities Act, 1981 The Local Government Act, 1986</p>

Tanzanian Mainland	Zanzibar
<p><b>Maritime zone and transport</b></p> <ul style="list-style-type: none"> <li>• Merchant Shipping Act, No 21 of 2003 (<i>Atmospheric pollution is addressed only minimally in Tanzanian legislation. The Act prohibits the emission of dark smoke from ships for more than five minutes in any hour within the limits of a port.</i>)</li> <li>• The Territorial Sea and Exclusive Economic Zone Act, No 3 of 1989</li> </ul>	<p><b>Maritime zone and transport</b></p> <ul style="list-style-type: none"> <li>• The Dangerous Goods Act (Cap. 160)</li> </ul>
<p><b>Agriculture, forestry, land and water</b></p> <ul style="list-style-type: none"> <li>• The Land (Distribution) Decree, 1966</li> <li>• Land Act, 4 of 1999 (<i>Private Group Property is given either through Granted Rights in General and Reserved Land (Land Act, Section 19) or through Customary Rights in Village Lands (Village Land Act, Section 22). Provision is also made for holding land by joint occupancy or occupancy in common (Land Act, Part XIII).</i>)</li> <li>• The Public Land Decree (Cap. 93) Removal of Natural Produce Rules</li> <li>• Forestry Policy, 1993 (<i>The revised Policy continues to recognise the important role of forests in the maintenance of the environment, the provision of forestry products, and the protection of watersheds and biodiversity.</i>)</li> <li>• Forest Act, No 14 of 2002</li> <li>• Plant Protection Act, No 13 of 1997</li> <li>• National Parks Ordinance, Cap 412</li> <li>• Water Utilization (Control &amp; Regulation) Act, No 42 of 1974 as amended in 1981 and 1997 (The Act establishes temporary standards for receiving waters, as well as effluent discharge standards).</li> <li>• Urban Water Supply Act, No. 7 of 1981 (The Act gives the National Urban Water Authority powers to monitor and control surface water and groundwater pollution and specifies when such pollution is a punishable offence.)</li> <li>• Waterworks Ordinance, Chapter 281 (The Ordinance specifies that the pollution of water supplies constitutes a punishable offence.)</li> <li>• Public Health, Sewerage and Drainage Ordinance, Chapter 336. (<i>The Ordinance prohibits the discharge of certain substances into sewers. Violation of the Ordinance is an offence, and penalties may be imposed on offenders.</i>)</li> </ul>	<p><b>Agriculture, forestry, land and water</b></p> <ul style="list-style-type: none"> <li>• The Forest Reserve Decree (Cap. 120) and Wood Cutting Decree (Cap. 121)</li> <li>• The Commission of Lands and Environment Act, 1988</li> </ul>
<p><b>Mining</b></p> <ul style="list-style-type: none"> <li>○ Mining Act, No 5 of 1998 and Regulations of 1999 (<i>The Act sets out government policy on all forms of mining and is supported by various regulations covering claims, prospecting rights, mining rights and royalties. Mining licence applicants are required to submit programmes for environmental protection. Each industry is required to establish realistic resource recovery standards and to adhere to them. Mining plans are required to be presented before operations begin.</i>)</li> <li>○ Explosive Act, No 56 of 1963</li> </ul>	<p><b>Mining</b></p>

## APPENDIX 14-1

### TYPE A PROJECTS REQUIRING A MANDATORY EIA

#### Listed in the First Schedule of the EIA and Audit Regulations

#### 1. Agriculture

- i. Large scale cultivation
- ii. Water resources development projects
- iii. Large scale mono-culture
- iv. Biological pest control
- v. Agricultural projects requiring the resettlement of communities
- vi. Introduction of new breeds of crops
- vii. Introduction of genetically modified organisms

#### 2. Livestock and Range Management

- i. Large scale livestock movement
- ii. Introduction of new breeds of livestock including genetically modified breeds
- iii. Introduction of new or alien foreign species
- iv. Intensive livestock rearing areas

#### 3. Forestry

- i. Timber logging and processing
- ii. Introduction of new tree species and development of forest plantations
- iii. Selective removal of single tree species
- iv. Biological pest control
- v. Afforestation and reforestation for purposes of carbon sequestration
- vi. Construction of roads inside forest reserves
- vii. Commercial charcoal, firewood and other forest harvest operations
- viii. Establishment of commercial logging or conversion of forested land to other land uses within catchment areas

#### 4 Fisheries

- i. Medium to large scale fisheries
- ii. Artificial fisheries e.g. aquaculture
- iii. Introduction of new species into water bodies
- iv. Large scale fish farming including prawn farming
- v. Industrial fish processing and storage
- vi. Introduction of genetically modified fish species and other aquatic species

#### 5 Wildlife

- i. Introduction of new species

- ii. Wildlife catching and trading
- iii. Establishment of hunting blocks or areas, especially involving the resettlement of communities
- iv. Translocation of wildlife
- v. New protected areas, especially involving the resettlement of communities
- vi. Wildlife ranching and farming
- vii. Zoo and sanctuaries

## **6 Tourism and recreational development**

- i. Construction of resort facilities or hotels along the shorelines of lakes, rivers, islands and ocean
- ii. Hill top resort or hotel development
- iii. Development for tourism or recreational facilities in protected and adjacent areas, on islands and in surrounding waters
- iv. Hunting and capturing
- v. Camping activities, walkways and trails etc
- vi. Major construction works for sporting purposes

## **7 Energy**

- i. Production and distribution of electricity, gas, steam and geothermal energy
- ii. Storage of natural gas
- iii. Thermal power development i.e. coal, nuclear
- iv. Hydro-electric power
- v. Development of other large scale renewable and non-renewable sources of energy

## **8 Petroleum Industry**

- i. Oil and gas fields exploration and development
- ii. Construction of offshore and onshore pipelines
- iii. Construction of oil and gas separation, processing, handling and storage facilities
- iv. Construction of oil refineries
- v. Construction or expansion of product depots for storage of petrol, gas, diesel, tar and other products within commercial, industrial or residential areas
- vi. Transportation of petroleum products

## **9 Transport and Infrastructure**

- i. Construction, expansion or rehabilitation of new trunk roads
- ii. Construction, expansion or rehabilitation of airports and airstrips and their ancillary facilities
- iii. Construction of new, or expansion to existing railway lines
- iv. Construction of new, or expansion to existing shipyards or harbour facilities
- v. Installation and expansion of communication towers

## **10 Food and Beverage Industries**

- i. Manufacture of vegetable and animal oils and fats
- ii. Oil refinery and ginneries
- iii. Manufacture of dairy products
- iv. Brewing, distilling and malting
- v. Fish meal factories
- vi. Slaughter houses
- vii. Soft drinks
- viii. Tobacco processing
- ix. Canned fruits and sauces
- x. Sugar factories
- xi. Other agri-processing industries

#### **11 Textile Industry**

- i. Cotton and synthetic fibres
- ii. Dye for cloth
- iii. Ginneries

#### **12 Leather Industry**

- i. Tanneries
- ii. Dressing factories
- iii. Other cloth factories

#### **13 Wood, Pulp and Paper Industries**

- i. Large scale manufacture of veneer and plywood
- ii. Large scale manufacture of fibre board and particle board
- iii. Large scale manufacture of pulp, paper, sand board cellulose mills

#### **14 Building and Civil Engineering Industries**

- i. Industrial and housing estates
- ii. Major urban projects
- iii. Construction and expansion/upgrading of roads, harbours, ship yards, fishing harbours, air fields and ports, railways and pipelines
- iv. Developments on beach fronts

#### **15 Chemical Industries**

- i. Manufacture, transportation, use and storage and disposal of pesticide and other hazardous and/or toxic chemicals
- ii. Manufacture of pharmaceutical products
- iii. Storage facilities for petroleum, petrochemical and other chemical products e.g. filling stations
- iv. Production of paints, varnishes etc
- v. Soap and detergent plants
- vi. Manufacture of fertilisers

**16 Extractive Industry**

- i. Extraction of petroleum
- ii. Extraction and purification of natural gas
- iii. Other deep drilling of boreholes and wells
- iv. Mining

**17 Non-metallic Industries**

- i. Manufacture of cement, asbestos, glass, glass-fibre, glass-wool and rubber etc
- ii. Manufacture of plastic materials
- iii. Lime manufacturing, tiles, ceramics

**18 Metal and Engineering Industries**

- i. Manufacture and assembly of motorised and non-motorised transport facilities
- ii. Body-building
- iii. Boiler making and manufacture of reservoirs, tanks and other sheet containers
- iv. Foundry and forging
- v. Manufacture of non-ferrous products
- vi. Manufacture of iron and steel
- vii. Electroplating

**19 Electrical and Electronic Industries**

- i. Battery manufacturing
- ii. Electronic equipment manufacturing and assembly

**20 Waste Treatment and Disposal**

- a) Toxic and Hazardous Waste
  - i. Construction of incineration plants
  - ii. Construction of off-site recovery plants
  - iii. Construction of waste water treatment plant (off-site)
  - iv. Construction of secure landfill facilities
  - v. Construction of off-site storage facilities
- b) Municipal Solid Waste
  - i. Construction of incineration plant
  - ii. Construction of composting plant
  - iii. Construction of recovery/recycling plant
  - iv. Construction of municipal solid waste landfill facility
- c) Municipal Sewage
  - i. Construction of waste water treatment plant
  - ii. Construction of marine outfall

- iii. Night soil collection, transportation and treatment
- iv. Construction of sewage system

**21 Water Supply**

- i. Canalisation of water courses
- ii. Diversion of normal flow of water
- iii. Water transfer schemes
- iv. Abstraction or utilisation of ground and surface water for bulk supply
- v. Water treatment plants

**22 Land Planning and Development, Land Reclamation, Housing and Human Settlements**

- i. Resettlement/relocation of people and animals e.g. establishment of refugee camps
- ii. Development or expansion of industrial estates
- iii. Establishment of estates for residential/commercial purposes
- iv. Major urban projects
- v. Construction of hospitals with large bed capacity
- vi. Land reclamation including land under water bodies
- vii. Development of residential and commercial estates on ecologically sensitive areas including beach fronts
- viii. Dredging of bars, groynes, dykes and estuaries.

## APPENDIX 14-2

TYPE B PROJECTS: SMALL-SCALE ACTIVITIES  
AND ENTERPRISES REQUIRING A PRELIMINARY  
ENVIRONMENTAL ASSESSMENT**Listed in the First Schedule of the EIA and Audit Regulations**

- i. Fish culture
- ii. Small animal husbandry and urban livestock keeping
- iii. Horticulture and floriculture
- iv. Wildlife catching and trading
- v. Charcoal production
- vi. Bark for tanning purposes
- vii. Brewing and distilleries
- viii. Bird catching and trading
- ix. Hunting
- x. Wildlife ranching
- xi. Zoo and sanctuaries
- xii. Tye and dye making
- xiii. Salt pans
- xiv. Urban agriculture
- xv. Hospitals and dispensaries, schools, community centres and social halls, playgrounds
- xvi. Market places (livestock and commodities)
- xvii. Blacksmiths
- xviii. Garages
- xix. Tile manufacturing
- xx. Kaolin manufacturing
- xxi. Livestock stock routes
- xxii. Tobacco curing
- xxiii. Sugar refineries
- xxiv. Tanneries
- xxv. Pulp plant
- xxvi. Oil refineries and ginneries
- xxvii. Artisanal and small scale mining
- xxviii. Rural roads

## APPENDIX 14-3

# ENVIRONMENTALLY SENSITIVE AREAS AND ECOSYSTEMS

### 1. Areas prone to natural disasters

Geological hazards, floods rain storms, earthquakes, landslides, volcanic activity, etc.

### 2. Wetlands

- Water bodies (flood plains, swamps, lakes, rivers etc.) characterized by one or any combination of the following conditions;
- Tapped for domestic purposes, brick making
- Within the controlled and or protected areas
- Which support wildlife and fishery activities
- Used for irrigation agriculture, livestock grazing

### 3. Mangrove swamps characterized by one or any combination of the following conditions

- With primary pristine and dense growth
- Adjoining mouth of major river systems
- Near or adjacent to traditional fishing grounds
- Which act as natural buffers against shore erosion strong winds and storm floods

### 4. Areas susceptible to erosion such as

- Hilly areas with critical slopes
- Unprotected or bare lands

### 5. Areas of importance to threatened cultural groups

### 6. Areas with rare/endangered/or threatened plants and animals

### 7 Areas of unique socio-cultural history, archaeological, or scientific importance and areas with potential tourist value

### 8 Polluted areas

### 9. Areas subject to desertification and bush fires

### 10. Coastal areas and Marine ecosystems

- Coral reef
- Islands
- Lagoons and estuaries
- Continental shelves
- Beach fronts, etc.
- Inter-tidal zones
- Marine reserves

### 11. Protected Areas

National parks, Watershed reserves, forest reserves, wildlife reserves and sanctuaries, sacred areas, wildlife corridors, hot - spring areas

### 12. Mountainous areas, water catchments areas and recharge areas of aquifers

### 13. Areas classified as prime agricultural lands or range lands

### 14. Green belts or public open spaces in urban areas

### 15. Burial sites and graves

## ACRONYMS

<b>DEIA</b>	Directorate for Environmental Impact Assessment
<b>D-G</b>	Director-General
<b>DoE</b>	Division of Environment
<b>EAT</b>	Environmental Appeals Tribunal
<b>EIA</b>	Environmental Impact Assessment
<b>EIS</b>	Environmental Impact Study
<b>EMA</b>	Environmental Management Act
<b>EMDC</b>	Environmental Management Divisional Standards Committee
<b>EMP</b>	Environmental Management Plan
<b>GMO</b>	Genetically Modified Organism
<b>I&amp;APs</b>	Interested and Affected Parties
<b>MoE</b>	Ministry of Environment
<b>NEAC</b>	National Environmental Advisory Committee
<b>NEAP</b>	National Environmental Action Plan
<b>NEM Act</b>	National Environmental Management Act
<b>NEMC</b>	National Environmental Management Council
<b>NEP</b>	National Environmental Policy
<b>NESC</b>	National Environmental Standards Compendium
<b>NGO</b>	Non-Government Organisation
<b>SADC</b>	Southern African Development Community
<b>SEA</b>	Strategic Environmental Assessment
<b>TBS</b>	Tanzanian Bureau of Standards
<b>TC</b>	Technical Committee
<b>ToR</b>	Terms of Reference
<b>UNEP</b>	United Nations Environment Programme
<b>WHO</b>	World Health Organisation

## USEFUL CONTACTS

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