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TANZANIA

CHAPTER 24: TANZANIA

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24 TANZANIA

24.1 Constitutional requirements for environmental protection in Tanzania

Tanzania has, at the highest level, committed itself to the conservation of the country's natural environment. 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:

- *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...*
- *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.*¹

24.2 Institutional and administrative structure for Environmental Impact Assessment in Tanzania

24.2.1 Vice-President's Office

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 to enable the efficient management of the environment and ensure the necessary environmental safeguards. However, it should be noted that the Government of Zanzibar has its own policy, legal and institutional framework for environmental management, which is described in Chapter 27 of this Handbook.

¹ Republic of Tanzania, 1998. *The Constitution of the United Republic of Tanzania*. Dar es Salaam: Government of Tanzania.

24.2.2 Division of Environment

In accordance with Sections 15 and 75 of the Environmental Management Act (2004), all environmental management issues, including climate change, are coordinated by the Vice President's Office. In line with this Act, the functions of the Division of Environment (DoE), approved by the President on 5th February 2007, are the formulation of policy on environment, co-ordination and monitoring of environmental issues, environmental planning, and policy-oriented environmental research.² In this role, the DoE has been responsible for the formulation of a number of national plans and strategies:

- National Environmental Action Plan (NEAP), 1994 (see s. 24.3.1 of this Chapter)
- National Environmental Policy, 1997 (see s. 24.3.2)
- National Action Programme to Combat Desertification, 1999
- National Integrated Coastal Management Strategy, 2002
- National Biodiversity Strategy and Action Plan, 2015-2020 (2016)
- Country Programme to Phase Out Ozone-Depleting Substances, 1996
- National Adaptation Programme of Action (on climate change), 2007 (see s. 24.3.3); and
- National Climate Change Strategy, 2012

One of the agencies under the DoE is the National Environment Management Council (NEMC)

24.2.3 National Environment Management Council

The NEMC was initially established in 1983 in terms of the National Environment Management Council Act, No. 19 of 1983. Its composition, powers and functions were re-articulated in Part III(d) of the Environmental Management Act (EMA), No. 20 of 2004. The NEMC is a corporate body with all the legal powers of such an entity. It falls under the DoE in the Vice-President's Office and its role is to provide advice on all matters pertaining to environmental conservation and management.

The objectives of the NEMC 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:

- Enforce and ensure compliance with the national environmental quality standards
- Review Environmental Impact Statements (EISs) and conduct environmental monitoring and auditing of projects and facilities
- Undertake and coordinate research, investigation and surveys related to the environment, and collect and disseminate information
- Carry out research and surveys for the proper management and conservation of the environment
- Render advice and technical support to entities engaged in natural resources and environmental management

² www.tanzania.go.tz/environmental.html

- Initiate and evolve procedures and safeguards for the prevention of accidents that may cause environmental degradation
- Enhance environmental education and public awareness, and establish and operate national environmental information systems for sound environmental management
- Publish and disseminate manuals, codes and guidelines relating to environmental management and the prevention or abatement of environmental degradation
- Issue restoration and easement orders and prohibition notices
- Undertake any other functions, such as integrated coastal zone management³

The NEMC has more than 50 qualified technical staff in various environmental disciplines. It is headed by a Director-General, who is assisted by directors and technical and support staff, under the guidance of the Council. The Directorate responsible for EIA is the Directorate of EIA (DEIA) (Figure 24.1).

NEMC has five operating zone offices:

- Northern Zone comprising the Arusha, Manyara and Kilimanjaro regions with an office in Arusha
- Lake Zone comprising the Mwanza, Shinyanga, Simiyu and Mara regions with an office in Mwanza
- Southern Highlands zone comprising the Mbeya, Rukwa, Songwe, Katavi and Iringa regions with an office in Mbeya
- Southern zone comprising the Mtwara, Lindi and Ruvuma regions with an office in Mtwara
- Eastern zone comprising the Dar es Salaam, Morogoro, Tanga and Pwani regions with an office in Dar Es Salaam

24.2.4 Directorate of Environmental Impact Assessment

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

The Directorate was established to ensure that environmental issues relating to developmental projects and activities, plans, programmes and policies in all sectors of the economy are integrated and considered early in the planning and design phases, with a view to minimising negative impacts and achieving sustainable development.

³ www.nemc.or.tz

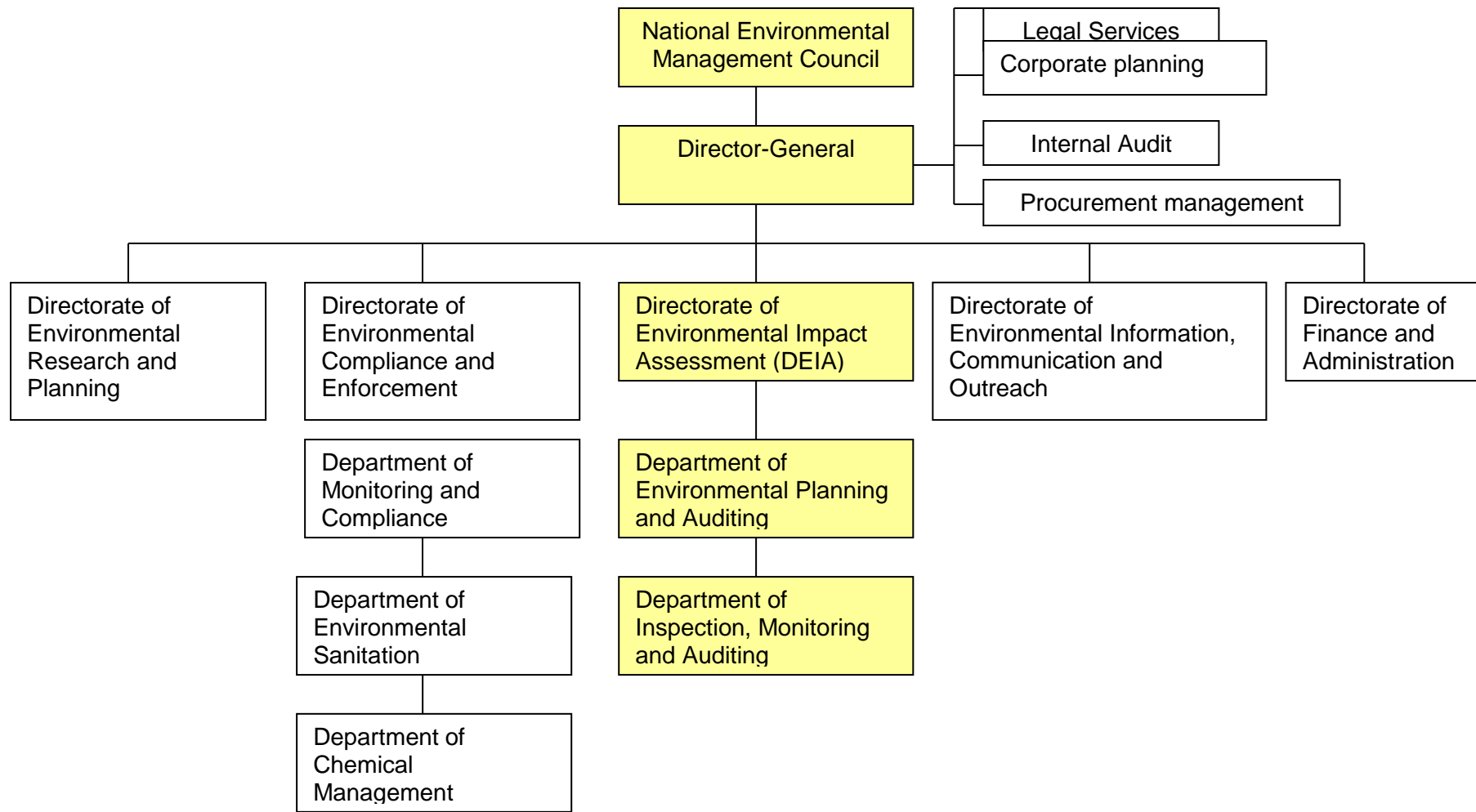


Figure 24.1: Organisational chart of the National Environmental Management Council

The Directorate is responsible for:

- Reviewing and approving 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 and verification visits
- Managing the EIA database and network development
- Conducting environmental monitoring and auditing⁴

24.2.5 Local government and inter-sectoral cooperation

The President's Office Regional Administration and Local Government is responsible for coordinating the implementation of all governing policies, acts, and regulations regarding environmental conservation at the level of local government authorities (LGAs), and monitoring the performance of LGAs. Sector ministries are responsible for ensuring that all activities are carried out in an environmentally sustainable manner⁵. The implementation of the EMA requires the support and actions of all levels of government.

Inter-sectoral cooperation is achieved through the establishment of an environmental section in each line ministry, headed by a Sector Environmental Coordinator.⁶ Each Environmental Coordinator is responsible for:

- Ensuring the line ministry's compliance 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 cooperation and shared responsibility for environmental governance.

Of specific relevance to the administration of EIA, the sector ministries and local authorities must do the following:

- Provide relevant policies, regulations, legislation and other project-related information to a proponent
- Collaborate in the evaluation of registration forms and Project Briefs
- Participate in the identification of important issues in the scoping process
- Collaborate in the review of the Terms of Reference, consultations during the EIA study, and 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 implementation⁷

⁴ www.nemctan.org

⁵ World Bank 2019

⁶ Section 33(1) of the EMA.

⁷ EIA Guidelines

Furthermore, in terms of section 87(2) of the EMA, the NEMC may set up a cross-sectoral Technical Advisory Committee (TAC) to participate in reviews of the EIS. The TAC comprises representatives from NEMC and those sector ministries affected by the project under review.

24.3 Policy and legal framework for EIA

24.3.1 National Environmental Action Plan

In 1994, the then Ministry of Tourism, Natural Resources and Environment (Tanzania) took the first step towards incorporating environmental concerns into national planning and development in Tanzania, with the publication of the National Environmental Action Plan (NEAP).⁸ The NEAP identified the following six major national issues in need of urgent attention on the Tanzanian mainland:

- Land degradation
- Access to good quality water
- Pollution
- Loss of wildlife habitats and biodiversity
- Deterioration of marine and freshwater systems
- Deforestation

The NEAP laid the foundation for the National Environmental Policy to be formulated for the Tanzanian mainland.

24.3.2 National Environmental Policy

The National Environmental Policy⁹, adopted in 1997, seeks to provide the framework for making the fundamental changes required in order to incorporate environmental considerations into the mainstream of decision-making.¹⁰ It provides guidance and planning strategies to determine how actions should be prioritised, and requires 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 National Environmental Policy are as follows:

- 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
- Prevent and control the degradation of land, water, vegetation and air, which constitute the country's life support systems
- Conserve and enhance the country's natural and manmade heritage, including the biological diversity of Tanzania's unique ecosystems

⁸ Republic of Tanzania, 1994. *National Environmental Action Plan: A first step*. Dar es Salaam: Ministry of Tourism, Natural Resources and Environment.

⁹ Currently under revision (World Bank 2019)

¹⁰ Republic of Tanzania, 1997. *National Environmental Policy*. Dar es Salaam: Office of the Vice-President.

- 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
- Raise public awareness and understanding of the essential links between the environment and development, to promote individual and community participation in environmental action
- Promote international cooperation on the environment agenda, and expand participation in, and contribution to, the relevant bilateral, sub-regional, regional and global organisations and programmes, including the implementation of treaties

24.3.3 Climate change policies, plans and programmes

One of the functions of the DoE is to coordinate all climate change issues, including their adaptation and mitigation. Reducing emissions from deforestation and forest degradation (REDD) is one of the mitigation options to address the impacts of climate change.

The United Nations Development Programme (UNDP) is supporting Government in finalising a National Climate Change Response Strategy and initiating the development of the Tanzania National Adaptation Plan. UNDP has also initiated a number of projects to address climate change including: **Supporting Government in mainstreaming climate change into national development plans and strengthening capacity for climate change governance.** These initiatives aim to strengthen the capacity of the Government of Tanzania to improve the level of information available and awareness among the general public and rural communities on climate change impacts and adaptation strategies.

UNDP is also supporting the Government in the **REDD (Reduction of Emissions, Deforestation and Degradation)** initiative which is about the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The energy sector has quite a significant impact on the performance of the economy. However, Tanzania has serious energy problems even though it is endowed with diverse energy resources including biomass, natural gas, hydro, coal, geothermal, solar, wind and uranium, much of which is untapped. Wood-fuel accounts for up to 90% of total national energy consumption, with about 2% from electricity and 8% from petroleum products. Solar, wind and other renewable energy sources account for only 0.5% of total energy consumption.

UNDP is supporting Government in promoting implementation of **low-carbon and efficient energy strategies**, including the utilisation of renewable energy technologies in rural areas. In addition UNDP facilitated a process for developing an ambitious programme (2013-2015) for scaling-up the adoption of renewable energy technologies in Tanzania, including solar, biogas, mini-hydro, geothermal energy etc.

The **Sustainable Energy for All initiative (SE4ALL)** is a major opportunity for Tanzania to receive further support from development partners for improving the energy sector. In this initiative, UNDP is already playing a key coordination and technical assistance role around the three goals of the SE4ALL, namely, energy access, renewable energy and energy efficiency.¹¹

¹¹ http://www.tz.undp.org/content/tanzania/en/home/ourwork/climatechange&energy/in_depth/

In addition, there are climate relevant sector specific strategies which include:

- National Guidelines for Mainstreaming Gender into Climate Change Related Policies, Plans, Strategies
- Tanzania Climate Change Gender Action Plan
- Tanzania Agriculture Climate Resilience Plan, 2014–2019
- The National Climate Change Communication Strategy
- Guidelines for Integrating Climate Change into National Sector Policies, Plans and Guidelines, 2013
- The Disaster Management Act 1990

While the policies on climate change are in place, challenges remain on the commitment to implement actions with the necessary institutional coordination and inter-sectoral co-operation.¹² Since 2015 climate change policy has taken a back seat in Tanzania's political agenda. Instead, the Government has prioritised rapid industrialisation and infrastructure development. Governance challenges impede Tanzania's ability to integrate its responses to climate-related issues into national and sectoral policies, and to design, implement and enforce the policies. There is weak coordination between peers and levels of government, limited scientific and policy information, and insufficient capacity and resources. Tanzania needs to take further action in order to address climate change adequately. Adopting a narrative of 'green growth' may be a more effective way to advance resilience, and eventually support a transition to a low-carbon and climate-resilient economy, while increasing access to electricity.¹³

24.3.4 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. This culminated in the promulgation of the new Environmental Management Act (EMA) in 2004 (No. 20 of 2004).¹⁴ The 2004 EMA repeals the National Environmental Management Act of 1983.

The 2004 EMA 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 arrangements |

¹² <https://www.irishaid.ie/media/irishaid/allwebsitemedia/30whatwedo/climatechange/Tanzania-Country-Climate-Action-Report-2016.pdf>

¹³ <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/10/Climate-change-governance-in-Tanzania-challenges-and-opportunities.pdf>

¹⁴ The EMA is undergoing a review and has not yet been fully developed (secondary legislation is still required for its full implementation, including regulations, rules, notices, orders, guidelines, and environmental quality standards). (Source: World Bank 2019)

Part IV:	Environmental planning
Part V:	Environmental management
Part VI:	Environmental impact assessment
Part VII:	Strategic Environmental Assessment
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

At the time, one of the aims of the Act was to legalise environmental policy and harmonise the legislation. Of specific interest for EIA practitioners are Parts VI, VII and XIV. The EIA procedures that have to be followed in terms of this Act are described in more detail in section 24.4 of this chapter.

The EMA defines the term 'environment' as being *"the surroundings of human beings including air, land, water, climate, sound, light, odour, taste, micro-organisms, the biological factors of animals and plants, cultural resources and the social economic factor [sic] of aesthetics and includes both the natural and the built environment and the way they interact."* This definition limits the scope of the interpretation of the term to the biophysical surroundings of the human being; the references to 'social' and 'economic' are made only in terms of aesthetics¹⁵ rather than in a broader interpretation of the socio-economic system in which human beings live and work. The final clause of the definition does attempt to bring together the natural and human environment, but only in terms of the built environment, rather than a dynamic system of human activity and interaction.

The EMA sets out several guiding principles, foremost of which is the right of every person in Tanzania to a clean, safe and healthy environment.¹⁶ In addition, it lists a further eight principles for sustainable development (section 5(3)):

- Precautionary principle
- Polluter pays principle
- Promotion of ecosystem integrity
- Public participation in the development of policies, plans and processes for the management of the environment
- Access to justice

¹⁵ Aesthetic factors include aspects of **perceived** environmental quality, e.g. a beautiful view or an ugly building, and reflect each person's subjective view of reality.

¹⁶ Section 4(1) of the EMA.

- Inter- and intra-generational equity
- International cooperation on the management of environmental resources shared by two or more states
- Common but differentiated responsibilities

While there is no specific reference to gender, the concepts of equity and justice intrinsically encompass the rights of all people to be heard and to participate in the EIA process, regardless of gender, religion or culture.

24.3.5 EIA and Audit Regulations

The EIA and Audit Regulations were published in terms of the EMA, 2004, in Government Notice No. 349 on 4 November 2005 and were amended by the EIA and Audit (Amendment) Regulations in Government Notice No. 474 of 31 August 2018. The 2004 Regulations (principal Regulations) are to be read together with the 2018 amended regulations. The Regulations are divided into 12 parts:

- Part I: Preliminary provisions
- Part II: General prohibition
- Part III: Project registration and screening
- Part IV: The EIA
- 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 four Schedules, as follows:

- First Schedule: Types of projects requiring an EIA (see Appendices 24-1 and 24-2)
- 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 summarised in section 24.4 of this chapter.

14.3.6 Permits and licences

An activity listed in the First Schedule of the EIA and Audit Regulations (see also Appendix 24-1 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 **EIA Certificate** from the NEMC. The EIA Certificate can be transferred from one holder to another should the ownership of the project change hands. However, the NEMC must be informed

of the transfer within 30 days¹⁷ and all the necessary forms must be completed (see Forms 7 and 8 in the Third Schedule of the Regulations). The developer must commence with his/her authorised development within three years; otherwise, s/he will have to re-register with the NEMC.

Developers are encouraged to consult the line ministry responsible for their sector project regarding other permitting and licensing requirements (see also Table 24.11).

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 24.1.

Table 24.1: Offences and penalties relating to EIA and environmental quality

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

24.3.8 Fees

The Regulations mention prescribed fees to accompany the various applications in the EIA process. Developers are requested to contact the NEMC for the latest information on the fees 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 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 major projects should be incorporated into the project approval process in Tanzania. They are in the form of a guidebook comprising three parts.¹⁸

Part I explains the procedures that apply to projects that fall within the scope of Schedule 1 (Type A projects requiring EIA and Type B projects that may require EIA). It also provides details of obligations and responsibilities in the EIA process.

Part II accounts for various stages in the EIA procedure and gives detailed guidelines for the following stages: registration, screening, scoping, EIA report writing, review and monitoring.

¹⁷ Section 84(2) of the EMA.

¹⁸ www.nemc.or.tz

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

- List of projects for which mandatory EIAs are required (see also Appendix 24-1 of this Handbook)
- A list of projects that may require an EIA (see Appendix 24-2)
- Model Terms of Reference 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, such as: roads, national parks, marine parks and reserves, mariculture development, coastal tourism and hazardous waste management.

14.3.10 Environmental standards

In terms of section 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, subsonic vibration, ionising and other radiation, soil quality, noxious smells, light pollution, electromagnetic waves and microwaves.

Preparing the different standards is the work of the Environmental Management Divisional Standards Committee (EMDC) of the TBS, which is a cross-section of various stakeholders chaired by the Vice-President's Office. According to the 2004 EMA, 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 the Committee are floated for public comments before their finalisation. The approval stage comes only after all public comments have been collated.

Because of the diversity of the various standards needed to manage the environment, the EMDC has formed several sub-committees, known as Technical Committees, to elaborate the work of drafting the various standards. These Technical Committees are normally chaired by the respective sectoral ministry or the relevant lead agency. The TBS provides the secretariat services.

The National Environmental Standards Compendium is a collection of various standards, divided into three parts. Part 1 comprises compulsory standards; these are categorised as generic or specific. Specific standards cover industries with particular effects on the environment, while other industries without a specific standard are regulated by generic standards. These standards are listed in Tables 24.2 to 24.10 below.

Part 2 of the Compendium contains standards that may be implemented on a voluntary basis. These include guideline standards, codes of practice, and other 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 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 to 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, noise and vibration. These are listed in Tables 24.2 to 24.10.

Table 24.2: Permissible limits for municipal and industrial wastewater (Tanzanian Standard 860:2006(E))

Parameter	Limit*
Biological oxygen demand at 20°C (BOD)	30
Chemical oxygen demand (COD)	60
Colour	300 TCU
pH range	6.5 – 8.5 units
Temperature range	20 – 35°C
Total suspended solids	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
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 ₃)	20
Phosphorus total (as P)	6
Selenium (Se)	1.0
Silver (Ag)	0.1
Sulphate (SO ₄)	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	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

Parameter	Limit*
Tetrachloroethylene	0.1
Tetrachloromethane	0.02
Trichloroethylene	0.3
Total coliform organisms	10 000 counts/100ml

* All units in mg/l except where indicated.

TCU: true colour unit; NTU: nephelometric turbidity unit

Table 14.3: Specific tolerances for effluents from various industries

Parameters	Tolerance limits*		
	Chrome tanning	Vegetable tanning	Fertiliser industry
Chlorides (as Cl), max.	1 000	1 000	–
Biochemical oxygen demand for 5 days at 20°C, max.	30	30 (up to 100)	–
Hexavalent chromium (as Cr), max.	0.1	–	–
pH	5.5 – 9.0 units	5.5 – 9.0 units	5.5 – 9.0 units
Suspended solids, max.	–	100	–
Colour and odour	–	Absent	–
Dissolved phosphate (as P), max.	–	–	5
Dissolved fluorides (as F), max.	–	–	15

* All units in mg/l except where indicated.

Recent standards have been developed for the sugar and textile industries.

Table 24.4: Drinking water standards (Tanzanian Standard 789:2003)

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 ₃)	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	2 000
Total hardness as CaCO ₃	500	600
Calcium (Ca)	75	300
Magnesium (Mg)	50	100
Magnesium + sodium	500	1 000
Sulphate (SO ₄)	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
Biological oxygen demand (5 days at 30°C)	6.0	6.0
Absorbed oxygen (as KMNO ₄)	10	20
Ammonium, (NH ₃ + NH ₄)	2.0	2.0
Total nitrogen (excluding NO ₃)	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

Parameter	Lower limit*	Upper limit*
Gross beta activity		0.1 Bq/l

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

TCU: true colour unit; NTU: nephelometric turbidity unit

Table 24.5: Ambient air quality standards (Tanzanian Standard 845:2012(E))

Pollutant	Guideline	Limit Level
Sulphur oxides, SO _x	Annual mean of 40 – 60 µg/Nm ³ (0.05 – 0.08 mg/kg) or 24-hour average 100 µg/Nm ³ (0.129 mg/kg)	Daily average of hourly values shall not exceed 0.1 mg/kg 0.5 mg/Nm ³ 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 ³ for periods not exceeding 15 minutes Time-weighted exposure at the following levels: <ul style="list-style-type: none"> • 100 mg/Nm³ for 15 minutes • 60 mg/Nm³ for 30 minutes • 10 mg/Nm³ for 8 hours or Daily average of hourly values 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 – 60 µg/Nm ³ (0.05 – 0.08 mg/kg) PM10: 60 – 90 µg/Nm ³ (0.05 – 0.116 mg/kg)	Daily average of hourly values shall not exceed 0.10 µg/Nm ³ and hourly values shall not exceed 0.20 µg/Nm ³
Nitrogen dioxide (NO _x)	Annual mean of 0.1 µg/Nm ³	150 µg/Nm ³ for 24-hour average value 120 µg/Nm ³ for 8 hours
Lead	Annual mean of 0.5 – 1.0 µg/Nm ³	1.5 µg/Nm ³ for 24-hour average value
Ozone	Annual mean of 10 – 100 µg/Nm ³	120 µg/Nm ³ for 8-hour average value

PM10: particulate matter smaller than about 10 micrometres

Table 24.6: Air quality emission limits

Pollutant	Guideline	Limit Level
Sulphur oxides, SO _x	LCP using <i>solid</i> fuel with thermal effect of: 50 – 100 MWth 100 – 300 MWth >300 MWth LCP using <i>liquid</i> fuel with thermal effect of: 50 – 100 MWth 100 – 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 ³ 200 mg/Nm ³ 200 mg/Nm ³ 850 mg/Nm ³ 400 – 200 mg/Nm ³ (linear decrease) 200 mg/Nm ³ 35 mg/Nm ³ 800 mg/Nm ³
Carbon monoxide, CO	<i>Liquid</i> fuel combustion with heat output exceeding 5 MW	Not to exceed 175 mg/Nm ³

Pollutant	Guideline	Limit Level
	<i>Solid</i> fuel combustion with the heat output exceeding 50 MW	Not to exceed 250 mg/Nm ³
Hydrocarbon (as total organic carbon)		Not to exceed 20 mg/Nm ³
Dust	Inert dust, including cement	Not to exceed 250 mg/Nm ³ (24-hour mean value)
Nitrogen oxides * (NO _x)	LCP using <i>solid</i> fuel with thermal effect of: 50 – 500 MWth >500 MWth LCP using <i>liquid</i> fuel with a thermal effect of: 50 – 500 MWth >500 MWth LCP using <i>gaseous</i> fuel with a thermal effect of: 50 – 500 MWth >500 MWth	Yearly average of: 600 mg/Nm ³ 500 mg/Nm ³ 450 mg/Nm ³ 400 mg/Nm ³ 300 mg/Nm ³ 200 mg/Nm ³
Lead		Not to exceed 5 tonnes/year of lead or lead compounds (measured as elemental lead) by a stationary source

LCP: large combustion plants

Table 24.7: Maximum permissible levels for general environmental noise

Facility	Noise limits (dB(A) (Leq))	
	Day	Night
Any building used as a hospital, convalescence home, home for the aged, sanatorium, learning institution, conference room, public library or environmental and recreational site	45	35
Residential buildings	50	35
Mixed residential (with some commercial and entertainment)	55	45
Residential and industry or small-scale production and commerce	60	50
Industrial areas	70	60

Table 24.8: Maximum permissible noise levels (continuous or intermittent noise) from a factory or workshop

Sound levels (Leq dBA)	Duration (daily)	Duration (weekly)
85	8 hours	40 hours
88	4 hours	20 hours
91	2 hours	10 hours
94	1 hours	5 hours
97	30 minutes	2 hours, 30 minutes
100	15 minutes	1 hours, 15 minutes
103	7 minutes, 30 seconds	37 minutes, 30 seconds
106	3 minutes, 45 seconds	18 minutes, 45 seconds
109	1 minute, 45 seconds	9 minutes, 45 seconds

Table 24.9: Maximum permissible noise levels for impact or impulsive noise

Sound level (dB(A) L _{max})	Permitted number of impulses or impacts per day
---------------------------------------	-------------------------------------------------

140	100
130	1,000
120	10,000

Table 24.10: Maximum permissible sound levels for mines and quarries

Facility	Limit value in dB
For any building used as a hospital, school, convalescence home, home for the aged or residential building	109 dB
For any building in an area used for residential and one or 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 dB

In 2018, the TBS introduced the Tolerance Limits for Environmental and Occupational Vibration (Tanzanian Standard 1471:2018(E)) which can be purchased from TBS.

24.3.11 Certification of consultants

Section 83 of the EMA makes provision for regulations to be made on 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 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 five years' experience in conducting EIAs
- Provide two abstracts of previous EIAs or audits conducted during the last three years
- Provide a curriculum vitae and at least three references, one of whom is registered in Mainland Tanzania
- 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 for local consultants applies, which is **60 days**.

Consulting firms may apply to be registered as Consulting Firms of Environmental Experts. To qualify, 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, it must make two separate applications. The 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 who 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. However, there are no specific requirements stating that the consultants have to be independent of the proponent, although the Code of Practice addresses the issue of conflict of interest.

NEMC is currently (mid 2019) in the process of updating its database of registered experts.

24.4 EIA procedural framework in Tanzania

The steps required to conduct an EIA are outlined in the following subsections and shown schematically in Figure 24.2.

24.4.1 EIA registration

The EIA registration form is designed to provide enough relevant information to enable the NEMC, environmental units of sector ministries and local authorities to set an appropriate level of assessment for a proposal referred to them. 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. 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).

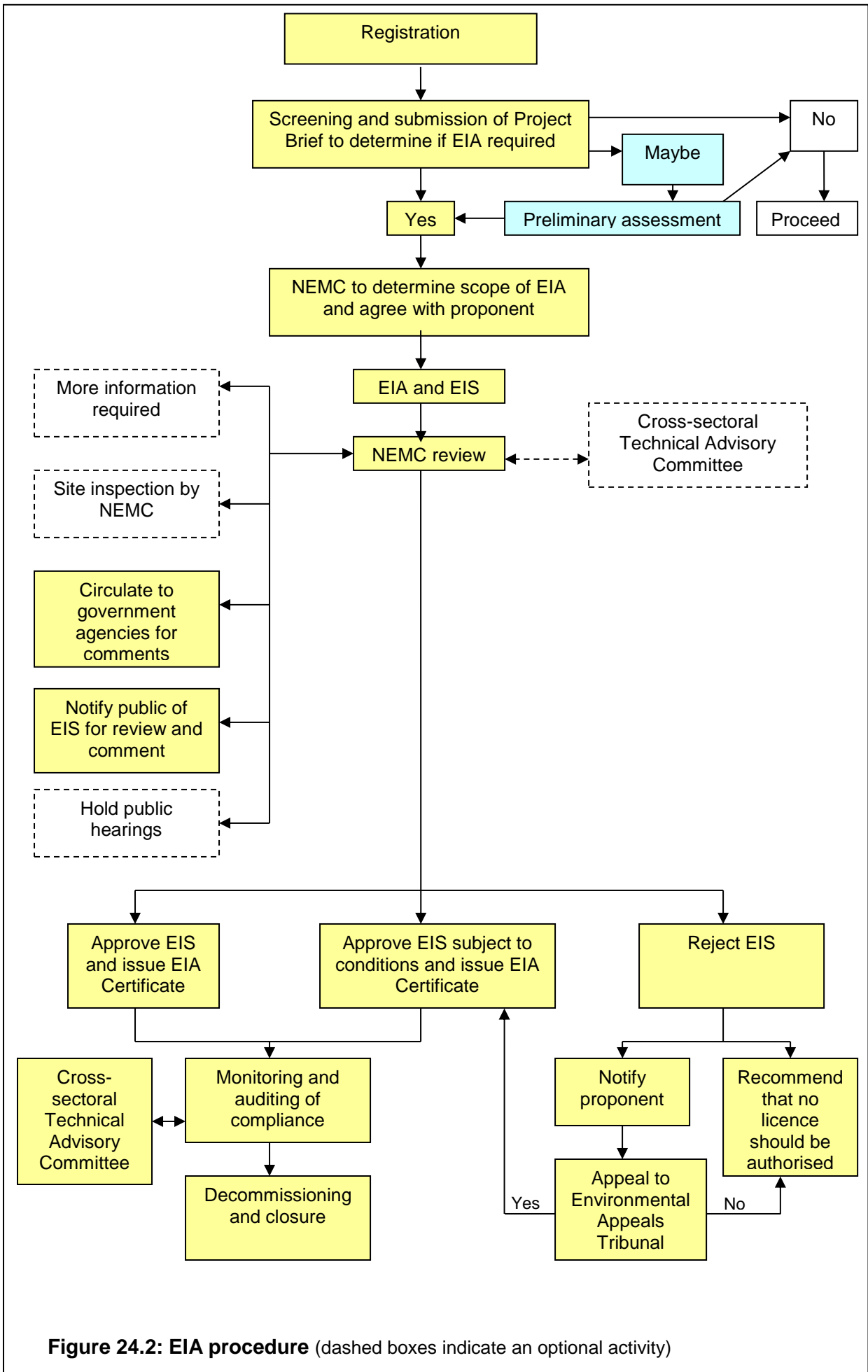


Figure 24.2: EIA procedure (dashed boxes indicate an optional activity)

24.4.2 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 of the impact assessment process after the registration of a project proposal. Screening is undertaken using information on the registration form and/or additional information provided in the submitted proposal.

The NEMC is responsible for screening projects. Projects of national interest or highly risky and contentious projects with potentially serious and multi-dimensional environmental concerns will be screened by the NEMC, while the more localised projects are screened by the local authority where the project is situated, under the guidance of the NEMC. No projects will be screened or subsequently reviewed by sector ministries, but these ministries can have representation on the cross-sectoral TAC (section 24.2.5).

The screening procedure (see Figure 24.2) will lead to one of the following decisions:

- An EIA is required where the project is known to have significant adverse environmental impacts (Type A projects – see Appendix 24-1)
- A preliminary environmental assessment is required where more information is needed in order to make a more informed screening decision (Type B projects – see Appendix 24-2)
- An EIA is not necessary where the project is unlikely to cause significant environmental impacts

An EIA is mandatory for projects that are known to have the potential for significant impacts on the environment. They are listed in the First Schedule of the EIA and Audit Regulations (see Appendix 24-1). An EIA is also mandatory for projects to be developed within or near environmentally sensitive and/or critical areas. These areas are known to be fragile or valuable environments that can easily be harmed by the effects of the development. A list of environmentally sensitive and/or critical areas is given in Appendix 24-3 of this Handbook and in the EIA Guidelines

The following criteria will be considered while conducting screening to determine whether an EIA is required: key project parameters, affected areas, the importance and scale of impacts on the environment, and the likely degree of public opposition. The EIA Guidelines provide guidance on each of these criteria.

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

24.4.3 Scoping and Terms of Reference

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

The proponent and his/her consultants have the final responsibility for scoping. The proponent may consult the NEMC for advice on the identification of a competent consultancy.

The objectives of scoping are as follows:

- Provide an opportunity for the proponent, his/her consultants, the relevant authorities and interested and affected parties in a project area to exchange information and express their views and concerns about the proposal before an EIA is undertaken
- Focus the study on reasonable alternatives and relevant issues to ensure that the resulting EIA is useful to decision-makers and addresses the concerns of interested and affected parties
- Facilitate an efficient assessment process that saves time and resources, and reduces costly delays that could arise where consultation had not taken place
- Determine the Terms of Reference (ToR) and boundaries of the EIA study

The proponent or his/her 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 EIA evaluation. The scoping report should at least indicate:

- How scoping was undertaken
- How the public was involved
- How the authorities and interested and affected parties were consulted, including dates and summaries of issues raised
- Alternatives that should be examined in the EIA
- The issues of concern
- The specific guidelines for undertaking and preparing the EIA

Following an identification of the main environmental issues of concern and how various stakeholders will be involved, the proponent or his/her consultant prepares the ToR for the EIA and submits 15 copies to NEMC. The ToR should be accompanied by the scoping report and provide formal guidance for experts on the range of issues that must be addressed in detail in the EIA process. They should also form a basis for the subsequent review process.

The ToR must indicate that the EIS should include the following:

- 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 to 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 the undertaking may have on the environment
- Proposed measures to prevent or mitigate all adverse impacts
- An evaluation of opportunities and constraints in the environment of the undertaking;
- A proposal for an environmental management programme to cover the construction, operational and decommissioning stages of the undertaking
- A proposal for environmental monitoring

- A proposed programme for public information

The ToR should be submitted to the NEMC for approval. Where necessary, a visit to the site(s) will be made (Figure 24.2). The outcome of the review of the ToR should be communicated to the proponent within a period not exceeding **30 days**. A model EIA Terms of Reference is provided in Appendix 3 of the EIA Guidelines. Upon approval of the Terms of Reference, the environmental investigation and preparation of an EIS can follow immediately.

24.4.4 Environmental Impact Statement

The EIS is to be prepared in accordance with Part VI of the EMA, 2004, and Parts IV and V of the EIA and Audit Regulations. Before submitting the EIS to the NEMC, the proponent shall consult the relevant authorities, agencies or organisations listed in Table 24.11 below.

Table 24.11: Relevant authorities to be consulted when preparing the EIS

Description of development	Consultee
Development likely to affect land in cities, municipalities and towns or 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	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	Ministry of Health and Social Welfare Chief Government Chemist
Development likely to result in a material increase in the volume of traffic or a material change in its character	Ministry of Transport Ministry of Home Affairs
Development likely to result in a material increase in the volume of traffic or a material change in the character of traffic entering or leaving a classified or proposed road	Ministry of Works Tanzania Roads Authority Ministry of Home Affairs
Development likely to prejudice the improvement or construction of a classified or proposed road	Ministry of Works Tanzania Roads Authority
Development involving the formation, laying out or alteration by any means of access to a highway (other than a trunk road)	The local authority concerned
Development involving or including mining operations	Ministry of Minerals
Development of land in urban areas, involving the demolition in whole or part or the material alteration of a listed building	Ministry of Natural Resources and Tourism The urban authority concerned
Development involving the carrying out of works or operations in the bed or on the banks of a river or stream	Ministry of Water The local authority concerned
Development for the purpose of refining or storing mineral oils and their derivatives	Ministry of Energy
Development involving the use of land for the disposal of refuse or waste	The urban authorities concerned in the case of urban land, or the local authorities concerned in the case of rural land
Development relating to the 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, Ministry of Water
Development relating to the use of land as a cemetery	The local authority concerned
Development in an area of special scientific interest	Ministry of Communications, Science and Technology Ministry of Health and Social Welfare National Scientific Council

Description of development	Consultee
Development that 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 that is for the time being used (or was last used) for agricultural purposes; or (ii) Loss of a substantial amount of agricultural land that is for the time being used (or was last used) for agricultural purposes, in circumstances in which development is likely to lead to a further substantial loss of agricultural land	Ministry of Lands, Housing and Human Settlements The local authority concerned Ministry of Agriculture, Food Security and Co-operatives Land Use Planning Commission
Development within 250 m of land that is or has, at any time in 30 years before the relevant application, been used for the deposition of refuse or waste	The local authority concerned Ministry of Health and Social Welfare

The EIS must address all aspects listed in the ToR and 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 and the 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, including the 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 with all supporting documentation, including details of the public participation process

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

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

24.4.5 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 24.2 in solid and dashed boxes respectively.

In conducting its review, the Council may:

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

Mandatory tasks of the Council include the following (section 89(2))

- Circulate 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)
- Notify the public of the availability of the EIS for 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 the Regulations (section 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, based on 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
- Any other factors that may be considered important

24.4.6 Appeals

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

24.4.7 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 from 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 (Figure 24.2). 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 that may have occurred because of such non-compliance.¹⁹ The monitoring requirements and the form and frequency of monitoring reports are set out in detail in Part XI of the EIA and Audit Regulations.

24.4.8 Environmental audits

The NEMC is also responsible for carrying out environmental audits of the development or commissioning qualified auditors to do so (Figure 24.2). The audit may include an inspection of all documentation relating to, *inter alia*, monitoring data, sampling results and specialist reports, 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.²⁰ 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 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 is then sent for review by the cross-sectoral TAC (see Figure 24.2).

24.4.9 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. The environmental performance bond, deposited in terms of section 227 of the EMA, will not be released until the proponent has fulfilled all the environmental obligations of closure.

24.4.10 Strategic Environmental Assessment

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

- When preparing a parliamentary bill that is likely to influence the management, conservation and enhancement of the environment or the sustainable management of natural resources
- When promulgating regulations, policies, programmes and development plans
- When any major mineral or petroleum resource is identified or when a major hydroelectric power station or water project is being planned

¹⁹ Sections 99 and 100 of the EMA.

²⁰ Section 101 of the EMA.

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 plan²¹

The responsible sector ministry must undertake the SEA for a major mining or petroleum project, hydroelectric power station or water development. The assessment 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 areas²²

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

24.4.11 Trans-boundary impacts

Tanzania is situated in East Africa on the coast of the Indian Ocean. It shares a border with 8 other countries: Kenya and Uganda to the north, Rwanda, Burundi and the Democratic Republic of Congo to the west, and Zambia, Malawi and Mozambique to the south.

Section 180 of the EMA makes provision for the Minister to initiate discussions with the relevant authorities of neighbouring countries on environmental management programmes and measures to avoid and minimise any trans-boundary environmental impacts that may currently occur or could arise from the development of a new project.

²¹ Section 104(3) of the EMA.

²² Section 105(2) of the EMA.

24.5 Other relevant environmental legislation in Tanzania

Environmental issues cut across a range of sectors; numerous pieces of legislation in the Tanzania Mainland have a bearing on the environment and should be considered in EIA decision-making. A summary of the sectors, titles of the legislative instruments and selected Acts, and the purpose of the legislation are provided in Table 24.12.

Table 24.12: Other potentially applicable sectoral requirements

Sector	Primary agency	Title and date of document	Purpose
Agriculture	Ministry of Agriculture, Food Security and Co-operatives	Plant Protection Act, No. 13 of 1997	Makes provision for the consolidation of the Plant Protection Act, prevents the introduction and spread of harmful organisms, ensures sustainable plant and environment protection, controls the importation and use of plant protection substances, regulates the export and import of plants and plant products, ensures the fulfilment of international commitments and entrusts all plant protection regulatory functions to the Government.
Land	Ministry of Lands, Housing and Human Settlements	Land Act, No. 4 of 1999	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).
	Ministry of Natural Resources and Tourism	National Parks Ordinance (Cap. 412) 1959	Establishes the mechanism whereby the President can declare, with the consent of Parliament, a National Park.
Forestry	Ministry of Natural Resources and Tourism	Forestry Policy, 1993	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.
	Tanzania Forest Services Agency	Forest Act, No. 14 of 2002	Provides for the management of forests and repeals certain laws relating to forests.
		Management Plan for the Mangrove Ecosystem in Tanzania, 1991	Provides for the sustainable management of the mangrove ecosystem in Tanzania
Water	Ministry of Water	Water Resources Management Act, 2009	The Act 'provides the institutional and legal framework for the sustainable management and development of water resources'. It further introduces measures to control and prevent the pollution of water resources and provides for public participation in the implementation of the National Water Policy.
		Water Supply and Sanitation Act, 2009	The Act aims to enforce sustainable management, adequate operation and

Sector	Primary agency	Title and date of document	Purpose
			transparent regulation of water supply and sanitation services.
		Water Utilization (Control and Regulation) Act, No. 42 of 1974 (as amended)	The Act establishes temporary standards for receiving waters, as well as effluent discharge standards.
		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
		Waterworks Ordinance, Chapter 281	The Ordinance specifies that the pollution of water supplies constitutes a punishable offence.
		Public Health, Sewerage and Drainage Ordinance, Chapter 336	The Ordinance prohibits the discharge of certain substances into sewers. Violation of the Ordinance is an offence, and penalties may be imposed on offenders.
Terrestrial wildlife and tourism	Ministry of Natural Resources and Tourism	Animal Welfare Act, No. 19 of 2008	Provides for the humane treatment of animals, establishment of the Animal Welfare Advisory Council, monitoring and mitigation of animal abuse and promoting awareness on the importance of animal welfare.
	Ministry Livestock and Fisheries Development	Wildlife Conservation Act, 2009, repeals the Act of 1974	The objective of the Act is to protect and manage areas with high or important biodiversity, as well as contribute to and benefit from international efforts to preserve global biodiversity. It further guides the conservation and management of wildlife resources and makes provision for the formation of the Wildlife Authority, which is an autonomous body under the control of the Director of Wildlife.
		Natural Resources Ordinance	This ordinance creates the Natural Resources Board, which is charged with the responsibility of supervising the use and/or exploitation of natural resources.
		The Tourism Act, 2008	Section 3(c) of the Act stipulates that 'the Act shall strive to promote eco-tourism, cultural tourism or any other forms of tourism that provides better sectoral linkages, create employment and foster sustainable development'.
Coastal affairs, fisheries and marine resources	Ministry Livestock and Fisheries Development	Marine Parks and Reserves Act, No. 27 of 1994 (includes provisions for EIA)	Provides for the establishment, management and monitoring of marine parks and reserves, establishes a Park and Marine Reserves Unit, and repeals certain provisions of existing legislation.
		National Fisheries Sector Policy and Strategy Statement, 1997.	Provides policy direction and strategy for the fisheries sector. Emphasises the need to manage, conserve and develop fisheries resources for the benefit of all Tanzanians

Sector	Primary agency	Title and date of document	Purpose
		Fisheries Act, No. 22 of 2003	Repeals and replaces the Fisheries Act, 1970, makes provision for sustainable development, protection, conservation, aquaculture development, regulation and control of fish, fish products, aquatic flora and its products.
		Territorial Sea and Exclusive Economic Zone Act, 1989	Makes provision for the implementation of the Law of the Sea Convention, establishes the territorial sea, establishes an exclusive economic zone, of Tanzania adjacent to the territorial sea, makes provision for the exploration, exploitation and conservation and management, of the resources of the sea.
		Deep Sea Fishing Authority Act, CAP 388, 1998 (as amended)	Establishes a Deep Sea Fishing Authority, regulates deep sea fishing in the Exclusive Economic Zone.
Planning and urban development	Ministry of Lands, Housing and Human Settlements	Town and Country Planning Ordinance, 1966 (Cap. 378)	The Ordinance was intended to establish a land use planning scheme for designated areas. The National Land Use Planning Commission was established to advise the government on land conservation and development.
		National Land Use Planning Commission Act, No. 3 of 1984	Provides for the establishment of a National Land Use Planning Commission and provides for its functions.
		Land Act, No. 4 of 1999	Provides for the basic law in relation to land other than the village land, the management of land and settlement of disputes.
		Village Land Act, No. 5 of 1999	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). Each Village Land Council is to maintain a Register of Communal Land (section 13(6)) and land cannot be allocated to individuals, families or groups for private ownership (section 12(1)(a)).
		Regional Administration Act, 1997	Aims to strengthen and promote the local government system through the creation of local administration at the regional and district level. This law provides for the establishment of government administration offices at regional level and prescribes the functions of a regional commissioner.
		Local (District and Urban) Authorities Act, No. 7 of 1982	Local authorities are empowered to make bylaws regarding the protection of soil, agriculture, water supplies and other natural resources. The Act contains provisions to protect human health and regulate pollution problems.)
Maritime zone and transport	Ministry of Transport	Merchant Shipping Act, No. 21 of 2003	Atmospheric pollution is addressed only minimally in Tanzanian legislation. The Act

Sector	Primary agency	Title and date of document	Purpose
			prohibits the emission of dark smoke from ships for more than five minutes in any hour within the limits of a port.
Mining	Ministry of Minerals	Mining Act, No. 14 of 2010	The Act 're-enacts with substantial amendments' the Mining Act, No. 5 of 1998. Amendments are particularly for provisions relating to prospecting for minerals, mining processing and dealing in minerals. It further amends the law relating to the granting, renewal and termination of mineral rights, as well as payment of royalties and mining fees
		Mining Act, No. 5 of 1998, and Regulations of 1999	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.
		Explosives Act, No. 56 of 1963	Provides for the control, manufacture, import, export, purchase, sale, possession and use of explosives and repeals the Explosives Ordinance.
Waste	Ministry of Natural Resources and Tourism	Regulations on the Prohibition of Plastic Carrier Bags (2019)	Provides for the control, import, export, manufacturing, sale, supply, storage and use of plastic carrier bags within Mainland Tanzania
Health	Ministry of Health and Social Welfare	Public Health Act, No. 1 of 2009	Provides for the promotion, preservation and maintenance of public health with a view to ensuring the provisions of comprehensive, functional and sustainable public health services to the general public.
Energy	Ministry of Energy	Electricity Act, No. 10 of 2008	Provides for the facilitation and regulation of generation, transmission, transformation, distribution, supply and use of electric energy, provides for cross-border trade in electricity and the planning and regulation of rural electrification.
Archaeology, history and culture	Ministry of Natural Resources and Tourism	Antiquities Act, 1964 (as amended)	Provides for the protection of heritage resources.
Labour employment and occupational health	Ministry of Labour and Employment	Employment and Labour Relations Act 2004	Provides for core labour rights, establishes basic employment standards, provides a framework for collective bargaining and provides for the prevention and settlement of disputes.

Appendix 24-1: 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 monoculture
 - 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. Zoos and sanctuaries

6 Tourism and recreational development

- i. Construction of resort facilities or hotels along the shorelines of lakes, rivers, islands and the ocean
- ii. Hilltop resort or hotel development
- iii. Development of 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 and nuclear
- iv. Hydroelectric 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. Fishmeal 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 or upgrading of roads, harbours, shipyards, fishing harbours, airfields and ports, railways and pipelines
 - iv. Developments on beach fronts
- 15 Chemical Industries**
 - i. Manufacture, transportation, use, 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 offsite recovery plants
 - iii. Construction of wastewater 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 and recycling plant
 - iv. Construction of municipal solid waste landfill facility
- c) Municipal sewage
 - i. Construction of wastewater 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 watercourses
- 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 or relocation of people and animals, e.g. establishment of refugee camps
- ii. Development or expansion of industrial estates
- iii. Establishment of estates for residential or 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 24-2: 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. Zoos and sanctuaries
- xii. Tie 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 24-3: Environmentally sensitive areas and ecosystems

1. Areas prone to natural disasters

Geological hazards, floods, rainstorms, earthquakes, landslides, volcanic activity, etc.

2. Wetlands

- Water bodies (flood plains, swamps, lakes, rivers, etc.) characterised 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 characterised by one or any combination of the following conditions:

- With primary pristine and dense growth
- Adjoining the 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
- Beachfronts, etc.
- Intertidal 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 catchment areas and recharge areas of aquifers

13. Areas classified as prime agricultural lands or rangelands

14. Green belts or public open spaces in urban areas

15. Burial sites and graves

Acronyms

dB(A)	average decibels
DEIA	Directorate of Environmental Impact Assessment
DoE	Division of the Environment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMA	Environmental Management Act
EMDC	Environmental Management Divisional Standards Committee
LGA	Local Government Authority
NEAP	National Environmental Action Plan
NEMC	National Environmental Management Council
REDD	Reducing Emissions from Deforestation and Forest Degradation
SEA	Strategic Environmental Assessment
TAC	Technical Advisory Committee
TBS	Tanzanian Bureau of Standards
ToR	Terms of Reference
TZS	Tanzanian Shilling
UNDP	United Nations Development Programme

Useful contacts

Department	Ministry	Telephone	Fax	Website
Directorate of Environmental Impact Assessment	National Environment Management Council PO Box 63154 Dar es Salaam Tanzania	+255-22-277-4852 +255-22-277-4889 +255-741-608930 Mobile - 0713608930	+255-22-2774901	www.nemc.or.tz
Institute of Resource Assessment	University of Dar es Salaam	+255-22-2410144	+255-22-2410393	www.ira.udsm.ac.tz