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MAURITIUS

CHAPTER 16: MAURITIUS

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16 MAURITIUS

16.1 National vision for environmental protection in Mauritius

Though the Constitution of Mauritius has no clause that specifically ensures the protection of the environment and promotes the concept of sustainable development, it does ensure the right to life and the right to health.¹ However, commitment to the environment and sustainable development has been expressed at the highest level. The then Prime Minister, Sir Aneerood Jugnauth, reaffirmed this commitment in his foreword to the 'State of the Environment in Mauritius',² prepared for the 1992 United Nations Conference on Environment and Development in Rio de Janeiro:

*"My government is committed: (a) to care for the natural environment; (b) to protect the health and welfare of Mauritians; and (c) to preserve the quality of our national and international commons ... Mauritians, by their nature as well as because of their cultural heritage, have a greater appreciation of the linkages between environment, economic development, quality of life, social and cultural values, economic, commercial, business and governmental decision-making. It is for this purpose that we must work together to achieve sustainable development, and prepare for a prosperous future based on a healthy environment."*³

More recently, 'Vision 2020: The national long-term perspective study'⁴ further strengthened this commitment to the vision of sustainable development, by observing that:

*"Our physical environment sets the boundaries in which we live. In Mauritius its quality is high – but vulnerable. We need to protect and enhance it, both for ourselves and for generations to come."*⁵

¹ Boucherville Baissac, P, 2003. Country Chapter: Mauritius. In: SAIEA (Southern African Institute for Environmental Assessment), *EIA in southern Africa*. Windhoek: SAIEA, pp. 109–24.

² Ministry of Environment and Quality of Life, 1991. *State of the environment in Mauritius*. Report presented at the United Nations Conference on the Environment and Development, Rio de Janeiro.

³ Boucherville Baissac, P, 2003.

⁴ Ministry of Economic Development and Regional Cooperation, 1997. *Vision 2020: The national long-term perspective study*. Port Louis: Government of Mauritius.

⁵ Boucherville Baissac, P, 2003.

16.2 Institutional and administrative structure for environmental impact assessment in Mauritius

16.2.1 Ministry of Social Security, National Solidarity, and Environment and Sustainable Development

The Ministry of Environment was created in 1992, following the promulgation of the first EPA in 1991.⁶ Recently, the Ministry changed its name to the Ministry of Social Security, National Solidarity, and Environment and Sustainable Development (the Ministry).

The following statutory bodies have been established within the Ministry under the EPA of 2002 to ensure effective coordination and collaboration among the stakeholders (see Figure 16.1):

- The National Environment Commission, a high-level inter-ministerial commission chaired by the Prime Minister where environmental policy decisions are taken;
- The Environment Coordination Committee⁷ comprising high-level officials from various ministries and authorities, which advises the Minister on the protection and management of the environment (including national environmental standards, the process of application for an Environmental Impact Assessment (EIA) Licence, review of the EIA) and enforces compliance with EIA legislation.⁸
- The Department of Environment (DoE), the technical arm of the Ministry, which is administered by a Director with powers to implement policy and enforce environmental laws. The Environment Assessment Division (EAD) of the DoE is responsible for EIAs (see sub-sections below and Figure 16.1);
- The Environmental Police (seconded police officers from the police force), who provide assistance to the Director on the enforcement of environmental laws;
- The National Network for Sustainable Development, a forum for discussion comprising several stakeholders, including non-governmental organisations and civil society, and chaired by the Minister responsible for environmental matters;
- The Integrated Coastal Zone Management Committee, comprising the Director of Environment and representatives of ministries, departments, organisations such as the University of Mauritius, and six non-governmental organisations. Its mandate is to make recommendations to the Minister on the management and protection of the coastal zone; and

⁶ UNEP-GEF (United Nations Environment Programme Global Environment Facility), 2006. *Nairobi Convention on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region: Draft report on the legal, regulatory and institutional framework for Mauritius*. Unpublished report.

⁷ Members are the Permanent Secretary of the Ministry of Environment (Chairperson); the Director (Vice-Chairperson); the Permanent Secretaries, Executive Directors or their representatives from the enforcing agencies; the Environmental Liaison Officer; and other public officers or officers of statutory bodies designated by the Minister.

⁸ Boucherville Baissac, P, 2003.

- Various technical committees and the Technical Advisory Committee are set up as and when required, pursuant to specific sections of the EPA (2002), on matters pertaining to the scientific and technical aspects of environmental protection and management.

The institutional structure upon which the implementation of the environmental strategy is based enables the Ministry to play its role as stimulator and coordinator, while the implementation is done by many other agencies, both governmental and non-governmental according to the programmes contained in the National Environmental Policy (see s. 16.3.2)

16.2.2 Department of the Environment

The Vision of the Department of Environment (DoE) is to achieve a “*cleaner, greener and safer Mauritius*” in a sustainable manner, through protection and management of environmental assets, mainstreaming sustainable development principles in different sectors of the economy, solid and hazardous waste management, enhanced resilience to disasters, and conservation and rehabilitation of beaches. In order to achieve this Vision, the DoE’s mandate is to:

- Devise an appropriate legal and policy framework regarding environment-related issues such as climate change, solid and hazardous waste management, disaster risk reduction and beach management to effectively respond to emerging challenges;
- Incorporate climate change adaptation and mitigation measures to ensure sustainable development initiatives;
- Preserve the country’s beaches through integrated coastal zone management;
- Devise an effective waste management policy to minimise the negative impacts of solid and hazardous wastes.⁹
- Ensure effective disaster preparedness and response to enhance the safety and security of the citizens.¹⁰

16.2.3 Environmental Assessment Division

As shown in Figure 16.1, the Environmental Assessment Division (EAD) is one of eight units falling under the DoE. The EAD plays a key role in the control of development and ensures that environmental impacts of major development projects, as listed under the Fifth Schedule of the Environment Protection Act (EPA), are foreseen and addressed from the inception stage through the EIA mechanism. The EAD also ascertains that appropriate measures are taken to mitigate adverse environmental impacts, enhance the positive impacts and promote sustainable development. To that effect, the EAD processes applications for EIA Licences and Preliminary Environmental Report (PER)

⁹ <http://environment.govmu.org>

¹⁰ <http://environment.govmu.org>

approvals within the time frames stipulated in the EPA (see s. 16.4 for more details on the EIA process).

A well-established mechanism is in place for the processing of EIA and PER applications. As the EIA process is multidisciplinary in nature, several environmental issues have to be taken into consideration. The Division accordingly works in close collaboration with technical line ministries and institutions to seek their expert views, prior to the examination of the applications by the EIA Committee. Public comments received are duly considered during the examination of the applications.¹¹

16.2.4 EIA Committee

As noted above, the EIA process requires significant inter-ministerial collaboration and information sharing and, therefore, provision is made in section 22 of the EPA for the establishment of an EIA Committee.¹² This Committee comprises the Director or his/her representatives (Chairperson), representatives of each of the ministries specified in the Sixth Schedule of the EPA Amendment Act (2008), one or more officers of the department designated by the Director (one of whom shall be the secretary to the Committee), an officer of the Environmental Police, and the Chief Executive Officer of the relevant local authority in the jurisdiction of the project concerned.¹³ The EIA Committee is required to examine applications for an EIA Licence referred to it after review by the Director and must make recommendations regarding the application under consideration (see Figure 16.1).

16.2.5 Inter-sectoral cooperation

Responsibility for the enforcement of the EPA is dispersed across a number of different ministries, which has the potential of being very effective in resolving the many institutional and enforcement issues that arise. However, the institutional and procedural mechanisms for ensuring coordination and consistency in enforcement of the EPA appear to be ineffective, and the institutions established by the EPA (such as those listed in s. 16.2.1) appear to lack high-level support and significant influence. The 2002 EPA also provides for other relevant ministries to enforce the law in relation to an environmental medium or pollutant for which those ministries already had responsibility under their respective legislation before the enactment of the EPA. The roles of the various enforcing agencies for pollution control under the EPA are summarised in Table 16.1.

¹¹ <http://environment.govmu.org>

¹² Members are the Permanent Secretary of the Ministry of Environment (Chairperson), the Director of the Department of Environment (no vote), the Permanent Secretaries or their representatives of the Ministries of Agriculture, Fisheries and Marine Resources, Health, Industry, Local Government, and Public Infrastructure, and representatives of the Town and Country Planning, Water Resources, and Wastewater Management authorities.

¹³ The Ministries are listed in the Sixth Schedule to the EPA and include: Agriculture, Fisheries and Marine Resources, Health, Industry, Local Government, Public Infrastructure, Town and Country Planning, Water Resources, and Wastewater.

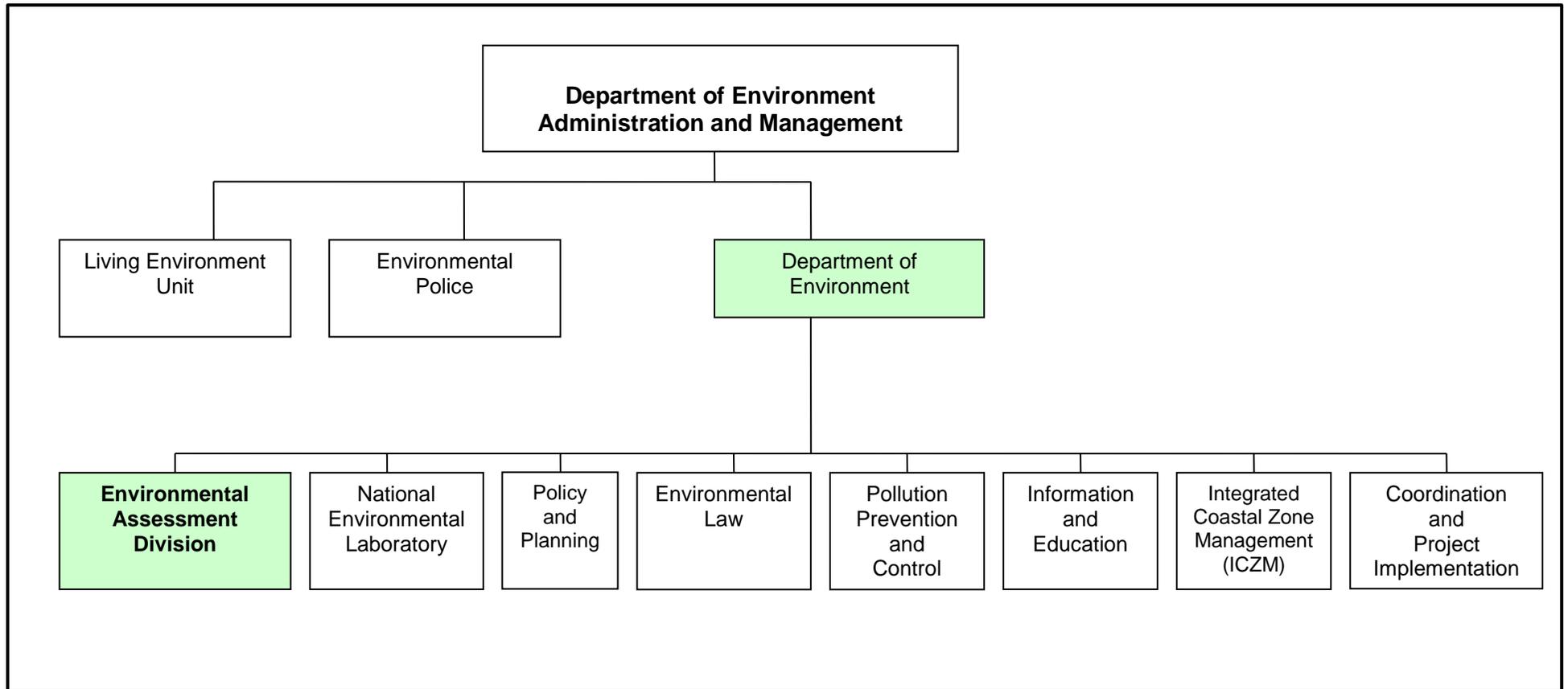


Figure 16.1: Organisational diagram of the technical units of the Department of Environment

Table 16.1: Division of responsibility for pollution control

Medium/pollutant	Enforcing agency
Noise, quality control of drinking water, and odour	Ministry of Health and Quality of Life
Inland waters and effluents	Ministry of Energy and Public Utilities
Solid wastes and hazardous wastes	Ministry of Local Government and Outer Islands
Pesticide residues	Ministry of Agro-Industry and Food Security (Agro-Industry Division)
Waters in a zone other than waters in the port	Ministry of Agro-Industry and Food Security (Fisheries Division)
Waters in the port	Port Master
Air and any of the above media or pollutants	Director of Environment

Under section 13 of the 2002 EPA, the enforcing agencies for environmental management within the different sectors are as set out in Table 16.2.

Table 16.2: Division of responsibility for environmental management

Environmental aspect	Enforcing agency
Land management	Ministry of Agro-Industry and Food Security (Land Use Division)
Water management	Ministry of Energy and Public Utilities (Water Resources Unit)
Air quality management	Department of Environment
Integrated coastal zone management	Department of Environment
Biodiversity	National Parks and Conservation Service
Integrated solid waste management	Ministry of Local Government and Outer Islands
Industrial management	Ministry of Industry, Commerce and Consumer Protection
Tourism management	Ministry of Tourism and Leisure
Agricultural management	Ministry of Agro-Industry and Food Security
Transport management	Ministry of Public Infrastructure, National Development Unit, Land Transport and Shipping

16.3 Policy and legal framework for EIA

16.3.1 National Environmental Action Plan

A National Environment Action Plan for Mauritius (NEAP I) was prepared for 1990–2000, followed by another, NEAP II, which set out the national environment strategy for the period 2000–2010. This led to several measures, including strengthening the Ministry of the Environment; replacing the Environment Protection Act (EPA), No. 34 of 1991, with the EPA, No. 19 of 2002; and improving the enforcement of the EPA through the creation of the Environmental Police (Police de l'Environnement). NEAP III has not been developed but a new National Environmental Policy was published in 2007.

16.3.2 Environmental, climate change and other policies

The National Environment Policy of 2007 is anchored in the concept of sustainable development, incorporating the relevant recommendations of the 1992 Rio Earth Summit, the 2000 Millennium Development Summit, the 2002 Johannesburg World Summit and the 2005 Mauritius International Meeting on Small Island Developing States.¹⁴

The mission of the National Environment Policy is to *“enable the Republic of Mauritius to attain the highest level of environmental quality as a means to enhance the quality of life of all citizens, preserve the natural environment and advance global competitiveness. This is to be achieved through continued innovation and vibrant partnerships with all stakeholders.”*¹⁵

The objectives of the policy are as follows:

- To protect and conserve critical ecological systems and resources and invaluable natural and manmade heritage, which are essential for life support, livelihoods, economic growth and a broad conception of human wellbeing.;
- To ensure equitable access to environmental resources and quality for all sections of society, and in particular for poor communities, as well as taking into consideration gender equity;
- To ensure judicious use of environmental resources to meet the needs and aspirations of present and future generations;
- To integrate environmental concerns into policies, plans, programmes and projects for economic and social development;
- To adopt sustainable consumption and production patterns, ensure efficient use of energy and environmental resources, and achieve a recycling-based society. To make optimum use of renewable energy sources, such as bagasse, ethanol, solar and wind energy, biomass and agricultural wastes;

¹⁴ The Ministry & NDU, 2007.

¹⁵ The Ministry & NDU, 2007.

- To have a built-up environment characterised by good landscaping and architectural designs.;
- Cooperation and partnership across all sectors is crucial to meet sustainability challenges and to build an environmentally sustainable Mauritius for generations to come;
- To inculcate environmental stewardship in society for the responsible care of the environment; and
- To develop a policy dialogue culture at all levels with stakeholders in order to ensure the effective participation of citizens.

The policy is based on the following guiding principles, which underpin the different strategies and action plans in environmental management:

- Human beings at the centre of environmental sustainability;
- Environmental stewardship;
- Maintaining basic ecological integrity;
- Sustainability;
- Precautionary principle;
- Polluter pays principle;
- Use of appropriate technology;
- Preventive approach;
- Science and knowledge;
- Partnerships;
- Decentralisation;
- Environmental education and awareness;
- Environmental governance and accountability; and
- Global code of conduct.

The Policy recognises the need to specifically address gender related considerations as part of social and cultural factors. However, cross-cutting issues which are not explicitly addressed in the Policy include resettlement and community health.

As a result of the National Environment Policy, NEAP II and the National Development Strategy, a number of policies, action plans and strategies have been developed to address a range of environmental issues. These are listed in Table 16.3.

Table 16.3: Existing and emerging policies on the environment and land use

Policy, Strategy or Action Plan	Responsible agency	Status	Brief description
National Solid Waste Management Strategy	Ministry of Local Government	Adopted	The National Solid Waste Management Strategy aims at reducing the generation of waste and the environmental impacts associated with its disposal, as well as ensuring that the socio-economic development

Policy, Strategy or Action Plan	Responsible agency	Status	Brief description
			of the country, the health of its people, and the quality of its environmental resources are not affected by an uncontrolled and uncoordinated waste disposal system.
National Sewerage Master Plan, 1994	Ministry of Public Utilities	Adopted	The Plan provides a complete scheme for the development of the wastewater sector in Mauritius. On the completion of the Plan, most of the existing effluent will be disposed of to sewers, before treatment. Furthermore, standards for treated wastewater for use in irrigation are now in force.
National Climate Change Action Plan, 1998	Meteorological Services	Adopted	Programmes are ongoing to reduce the negative impacts of climate change, covering adverse impacts, measures for abatement and enhancing sinks for greenhouse gases, policy options for monitoring systems and for strategies to respond to the impact of climate change, and policy frameworks for implementing adaptation measures and response strategies.
National Climate Change Adaptation Policy Framework 2012	Ministry responsible for the environment	Adopted	The main goal of the document is to integrate and mainstream climate change adaptation into the core development policies, strategies and plans of Mauritius. More specifically, this report contains (1) a National Climate Change Adaptation Policy (time frame: 20 years), (2) a Climate Change Adaptation Strategy and Action Plan (time frame: 10 years), (3) a Climate Change Adaptation Investment Plan (time frame: 3 years), and (4) selected Project Concepts.
National Biodiversity Strategy and Action Plan (2017–2025)	Ministry of Agro-Industry and Food Security	Adopted	This action plan addresses Mauritius' obligations under Article 6a of the Convention on Biological Diversity. The action plan has 5 strategic goals: a) addressing the underlying causes of biodiversity, b) reducing direct pressures on biodiversity, c) improving the status of biodiversity by safeguarding ecosystems and species diversity, d) enhancing the benefits to all from biodiversity and ecosystem services, and e) enhancing implementation through participatory planning, knowledge management and capacity building.
National Oil Spill Contingency Plan	Ministry responsible for the environment	Adopted	Mauritius has strengthened its institutional and legislative framework to control oil pollution. In line with the provisions of the Environment Protection Act of 2002, Mauritius has prepared a contingency plan with the support of the Indian Ocean Commission in order to respond to oil spills. It includes a data directory and a coastal sensitivity atlas of Mauritius.
Mauritius Strategy, 1994	Government of Mauritius	Adopted	The Mauritius Strategy involves the adoption of a proactive strategy for the further implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The Mauritius Declaration focuses on the full commitment of all stakeholders to support the efforts of Small Island Developing States to implement sustainable strategies.

16.3.3 Environment Protection Act, 2002 (amended 2008)

The first EPA was promulgated in 1991. Part IV of this Act, which sets out formal procedures for EIA, only came into force in 1993. The 1991 EPA was repealed and replaced by the EPA, No. 19 of 2002, which aimed to consolidate and reinforce the legal framework for environmental management, particularly the proper implementation of government policies and enforcement provisions. The 2002 Act was amended by Act No. 6 of 2008. The 2002 EPA (as amended) provides for a licensing regime that requires either preliminary environmental report (PER) approval or an EIA Licence for various activities, ranging from minor activities to strategic developments.¹⁶

The major provisions set out in the 2002 EPA include the following:¹⁷

- The concept of environmental stewardship (section 2);
- The requirement for EIAs for major scheduled undertakings;
- The establishment of standards and guidelines relating to air, water, noise, odour, effluent, waste (including hazardous waste) and pesticide residues in raw food commodities;
- The protection of natural resources and biodiversity conservation;
- Greater transparency and public participation in the EIA mechanism (section 20);
- Streamlining of the EIA procedure (section 21);
- The duty to report to the Director of Environment and to take prompt action when accidental spills of a pollutant occur;
- The establishment of liabilities regarding the rehabilitation of environmental quality;
- The responsibilities of the various enforcing agencies in the enforcement of environmental laws;¹⁸ and
- A revised list of undertakings requiring different levels of assessment.

The term 'environment' is defined in the Act as meaning:

- 'a) land, air, water or any combination of these media;*
- b) all living organisms; and*
- c) any built-up environment".*

This definition seems to focus on the biophysical environment only and does not appear to include human, health, societal, cultural or economic systems as part of the broader environment. This is at odds with the National Environment Policy of 2007, which takes a far more holistic approach to the environment (section 16.3). Note that the required contents of an

¹⁶ Boucherville Baissac, P, 2003.

¹⁷ UNEP-GEF, 2006.

¹⁸ Under Government Notice 57/2005, other legislation has been declared environmental laws.

EIA report include the consideration of a much broader interpretation of the term, addressing impacts on the 'environment, people and society' (section 16.4.3).

16.3.4 Regulations

There are no Regulations dealing with EIA at present. However, numerous Regulations exist for other aspects of environmental protection (see also Table 16.13):

- The Environment Protection (Standard for Effluent Discharge) Regulations, 2003, amended in 2004;
- The Environment Protection (Effluent Discharge Permit) Regulations, 2003, amended in 2004;
- The Environment Protection (Standard for Effluent Use in Irrigation) Regulations, 2003
- The Environment Protection (Standard for Effluent Discharged into the Ocean) Regulations, 2003;
- Environment Protection (Drinking Water Standards) Regulations, 1996
- Groundwater Regulations, 1973;
- Environment Protection (Standards for Air) Regulations, 1998;
- Environment Protection (Hazardous Waste) Regulations, 2002;
- Environment Protection (Standards for Hazardous Wastes) Regulations, 2001;
- Waste Audit Regulations, (draft);
- Local Government (Dumping and Waste Carriers) Regulations, 1997;
- Public Health Act (Disposal of Refuse) Regulations, 1984;
- Environment Protection (Standards for Noise) Regulations, 1997;
- Various regulations relating to fisheries, coral and wildlife protection;
- Environment Protection (Collection, Storage, Treatment, Use and Disposal of Used Oil) Regulations, 2005; and
- Environment Protection (Control of Noise) Regulations, 2008.

16.3.5 Permits and licences

The Director of the DoE issues EIA Licences and PER Approvals, following the approval of the application by the Minister. This is done in consultation with the sectoral or stakeholder ministries, the EAD, the EIA Committee, as well as with the local authorities concerned.

The local authorities are empowered under the Town and Country Planning Act of 1954 to grant Development Permits for the development of any land. Development permits are granted under the guidance of the National Physical Development Plan and Outline Schemes.¹⁹ However, a

¹⁹ Outline Schemes provide the local authorities with a guide for implementing the strategies and policies of the National Physical Development Plan – a strategic plan that defines the broad objectives, strategies and policies for the physical development of the country – at regional and local level.

developer also needs to secure a number of other permits (see Table 16.4), including a PER Approval, for undertakings listed in Part A of the Fifth Schedule and an EIA Licence, for undertakings listed in Part B of the Fifth Schedule of the EPA (Appendices 16-1 and 16-2 of this Chapter). This can result in the same information being considered and the same issues being assessed and adjudicated by different authorities.²⁰

Table 16.4: Development permits and issuing authority

Type of permit	Issuing authority
EIA Licence	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development
Effluent Discharge Permit	Wastewater Management Authority
Development Permit	Local authority and/or Ministry of Public Infrastructure
Trade Licence	Local authority
Land Conversion Permit	Ministry of Agro-Industry and Food Security
Zoning/Rezoning Certificate	Town and Country Planning Board
Hotel Development Certificate	Ministry of Tourism and Leisure
Pleasure Craft Permit	Ministry of Tourism and Leisure

Although there is some duplication of procedure, the Ministry believes that this process does not lead to conflict, since EIAs account for less than 1% of development permits granted annually. The processing of development permits, particularly for those projects that are not scheduled (see Appendices 16-1 and 16-2), is based on the Outline Schemes, site location and building plans, with no in-depth consideration of the environmental impacts associated with the development.

16.3.6 Offences and penalties

Section 85 of the EPA sets out the penalties for various offences that may be committed in terms of the Act. Those related to EIA and environmental pollution are summarised in Table 16.5.

Table 16.5: Offences and penalties

Offence	Penalty
General offences under the Act, other than those specified below	On first conviction, a fine not exceeding Rs50,000 and imprisonment for a term not exceeding 2 years. On second or subsequent conviction, a fine not exceeding Rs100,000 and imprisonment for a term not exceeding 8 years.
Section 15: Unauthorised commencement of a listed undertaking	On first conviction, a fine of between Rs50,000 and Rs100,000 and imprisonment for a term not exceeding 2 years.

²⁰ Boucherville Baissac, P, 2003.

Offence	Penalty
Section 25: Failure to submit a fresh EIA when directed to do so Section 52: Unauthorised dumping in the coastal zone Section 56: Failure to comply with any decision, order, directive or notice handed down by the Environment Appeal Tribunal Section 71: Failure to comply with an Enforcement Notice Section 72: Failure to comply with a Prohibition Notice	On a second or subsequent conviction, a fine between Rs100,000 and Rs500,000 and imprisonment for a term of 6 to 12 years.
Section 24: Failure to comply with a directive from the Minister with regard to: the method of execution of an undertaking; actions required to mitigate adverse effects of the undertaking on the environment, people and society; research and monitoring programmes; and environmental reporting Section 26: Failure to notify the Director of the transfer of an EIA Licence S84: Failure to conduct compliance monitoring as directed and to submit reports as required to the Director	On first conviction, a fine of between Rs10,000 and Rs25,000 and imprisonment for a term not exceeding 4 years. On a second or subsequent conviction, a fine between Rs50,000 and Rs250,000 and imprisonment for a term of 6 to 8 years.
Schedule 9 (section 88(1)) offences: Discarding, placing, throwing, leaving behind or causing to be dropped any litter or waste generated from any trade, business, industry, office or any service provider in any:	Lake, reservoir, stream or watercourse or upon the bank of any of any of the same or beach or any part of sea: Rs10,000. Canal, drain or public place: Rs6,000.
(2) Discarding, placing, throwing, leaving behind or causing to be dropped any litter, waste or any other article generated other than from a trade, business, industry, office or any service provider in any:	Lake, reservoir, stream or watercourse or upon the bank of any of the same or beach or any part of sea: Rs3,000. Canal, drain or public place: Rs2,000.

16.3.7 Fees

The EPA does not prescribe fees for EIA application or review. However, designated establishments are required to pay a monthly 'environmental protection fee' as prescribed in section 66 of the EPA. The class of designated establishments and the applicable fees are set out in Eighth Schedule of the Act and shown in Table 16.6.

Table 16.6: Designated establishment environment protection fees

Designated establishment	Fee payable	Date payable
Hotels	0.85% of monthly turnover	Within 20 days after the end of every month
Guest houses of more than 4 bedrooms	0.85% of monthly turnover	Within 20 days after the end of every month
Enterprise engaged in stone crushing or in the manufacture or processing of aggregates, concrete blocks, precast units, coral sand, rock sand or basalt sand	0.75% of monthly turnover	Within 20 days after the end of every month

Premises used in connection with an enterprise engaged in the manufacture, assembly, or importation of— (a) mobile phones; (b) batteries for vehicles except for motorcycles, electric bicycles and electric wheelchairs; (c) pneumatic tyres, except those used for motorcycles, bicycles and wheelchairs.	50 rupees per unit	Within 20 days after the end of every month
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16.3.8 Guidelines

The EAD uses a general guideline for EIAs and sectoral checklists to review EIAs in the different sectors: land parcelling (subdivision), coastal development, housing, poultry and livestock rearing, industrial development, and so forth.²¹

The Ministry has prepared general guidelines for the contents of the Preliminary Environmental Report (PER) and EIA reports, as well as for several sectors:²²

- PER Guideline for proposed food processing industrial activities (excluding small and medium enterprises);
- PER Guideline for Proposed Poultry Projects (above 5,000 heads);
- PER Guideline for proposed discotheque or nightclub;
- PER Guideline for the proposed rearing of livestock (more than 20 head of cattle, 50 head of goat and 50 head of sheep);
- EIA Guideline for the Proposed Construction of Marinas;
- EIA Guidelines for Proposed Desalination Plants;
- EIA Guidelines for Proposed Stone Crushing Plants;
- EIA Guideline for Proposed Residential Subdivision Projects (under review);
- EIA Guideline for Proposed Coastal Hotel Projects (under review);
- EIA Guidelines for Fish Farming in the Sea;
- A Guide for Proponents on the Preliminary Environmental Report (2009);
- A Proponent's Guide to EIA;
- Guideline on Public Participation (2010);
- Guideline on Alternatives (2010);
- Guideline on Involving Specialists (2010).

The Fifth Schedule of the 2002 EPA, which provides a list of undertakings requiring an EIA or PER, was reviewed and amended in October 2006 to exclude certain undertakings. For those activities, environmental guidelines have been prepared to assist proponents to include

²¹ Boucherville Baissac, P, 2003.

²² <http://environment.govmu.org/English/eia/Pages/Environmental-Impact-Assessment.aspx>

environmental safeguards in the implementation of their projects. The guidelines developed for these activities are listed in Appendix 16-3.

16.3.9 Environmental standards

Part VI of the EPA provides for the issuing of standards and guidelines relating to water, effluent, air, noise, waste, pesticides, odour, radioactive emissions, built-up environments and landscape. Although the Director of the Department of Environment is given strong enforcement powers, environmental laws have only been promulgated in a few limited areas and, consequently, many harmful practices cannot be controlled. Also, some of the environmental standards are likely to be difficult to enforce because of overlapping responsibilities with other ministries and enforcing agencies.²³

Table 16.7: Drinking water quality standards

Parameter	Maximum allowable
Microbial	
<i>Escherichia coli</i>	Must not be detectable in any 100 ml sample
Coliform organisms	0 in 95% of samples examined throughout the year. In the case of quantities of water needed for distribution throughout the year, when not less than 50 samples are examined for each period of 30 days, three in an occasional sample, but not in consecutive samples
Physico-chemical	
pH	6.5 – 8.5
Total dissolved solids	1 000 mg/l
Turbidity	5 NTU
Organoleptic	
Colour	20 Pt-Co
Taste and odour	not objectionable
Trace metals	
Aluminium (Al)	0.2 mg/l
Arsenic (As)	0.01 mg/l
Cadmium (Cd)	0.003 mg/l
Copper (Cu)	1 mg/l
Lead (Pb)	0.01 mg/l
Mercury (Hg)	0.001 mg/l
Total chromium (Cr)	0.05 mg/l
Zinc (Zn)	3.0 mg/l
Nickel (Ni)	0.02 mg/l
Anions	

²³ Boucherville Baissac, P, 2003.

Parameter	Maximum allowable
Chloride (Cl)	250 mg/l
Fluoride (F)	1.5 mg/l
Sulphate (SO ₄)	250 mg/l
Nitrate (NO ₃)	50 mg/l
Nitrite (NO ₂)	3 mg/l
Pesticides	
Aldrin and dieldrin	0.03 µg/l
DDT	2 µg/l
Lindane	2 µg/l
HCB	1 µg/l
Methoxychlor	20 µg/l
Heptachlor and heptachlor oxide	0.03 µg/l

NTU: nephelometric turbidity units

DDT: dichlorodiphenyltrichloroethane

HCB: hexachlorobenzene

Table 16.8: List of parameters for each industrial activity

Industrial activity	Parameters
Beverages industries	Temperature, pH, COD, BOD, TSS, sodium, zinc, detergents
Breweries and distilleries	Temperature, pH, COD, BOD, TSS, nitrate as N, selenium, zinc, oil and grease, detergents, ammonia as NH ₄
Canning and food processing	Temperature, pH, COD, BOD ₅ , free chlorine, TSS, chloride, nitrate as N, TKN, sodium, oil and grease, total coliforms
Dairy processing	Temperature, pH, COD, BOD, TSS, selenium, oil and grease, detergents, ammonia as NH ₄
Dye houses and washing units in the textile sector	Colour, temperature, pH, COD, BOD, reactive phosphorus, free chlorine, TSS, chloride, sulphate, sulphide, ammonia as NH ₄ , nitrate as N, detergents, cadmium, total chromium, cobalt, copper, molybdenum, sodium, zinc, oil and grease, total pesticides, total organic halides
Edible oil refining	Temperature, pH, COD, BOD, TSS, chloride, sodium, oil and grease, total organic halides, phenols, detergents
Industrial slaughtering	Temperature, pH, COD, BOD, TSS, chloride, nitrate as N, TKN, oil and grease, total coliforms, <i>Escherichia coli</i>
Laundry processes	Temperature, pH, COD, BOD ₅ , reactive phosphorus, free chlorine, TSS, nitrate as N, oil and grease, total organic halides, detergents
Livestock breeding	pH, COD, BOD ₅ , reactive phosphorus, TSS, nitrate as N, TKN, total coliforms, <i>Escherichia coli</i> , ammonia as NH ₄ .
Manufacture of chemical fertilisers	Temperature, pH, COD, BOD, reactive phosphorus, TSS, sulphate, oil and grease, ammonia as NH ₄ .

Industrial activity	Parameters
Manufacture of soaps and detergents and bulk storage of raw materials	Temperature, pH, COD, BOD ₅ , reactive phosphorus, free chlorine, TSS, oil and grease, total organic halides, detergents, ammonia as NH ₄
Mechanical workshop	pH, COD, BOD ₅ , oil and grease, total chromium, lead, manganese, zinc
Metal plating and galvanising	Temperature, pH, COD, free chlorine, TSS, chloride, sulphate, sulphide, nitrate as N, cyanide, cadmium, total chromium, cobalt, copper, iron, lead, nickel, zinc, oil and grease, total organic halides
Paint manufacturing	Colour, temperature, pH, COD, BOD ₅ , TSS, chloride, sulphate, sulphide, aluminium, cadmium, total chromium, cobalt, copper, lead, mercury, molybdenum, zinc, oil and grease, total organic halides
Tanning	Colour, temperature, pH, COD, BOD ₅ , reactive phosphorus, TSS, sulphate, sulphide, nitrate as nitrogen, cadmium, total chromium, mercury, oil and grease, total organic halides, total coliforms, <i>Escherichia coli</i> , ammonia as NH ₄ .
Thermal power plant	Temperature, pH, TSS, oil and grease, total chromium, copper, iron, zinc

COD: chemical oxygen demand

BOD: biological oxygen demand

TSS: total suspended solids

TKN: total Kjeldahl nitrogen

Table 16.9: Effluent discharge standards (Schedule 2)

Parameter	Unit	Maximum permissible limit	
		Land/ underground	Surface watercourses
Total coliforms	Count per 100 ml	–	<400
<i>Escherichia coli</i>	Count per 100 ml	<1 000	<200
Free chlorine	mg/l	–	0.5
Total suspended solids	mg/l	45	35
Reactive phosphorus	mg/l	10	1
Colour	-	Not objectionable	
Temperature	°C	40	
pH	-	5 – 9	
Chemical oxygen demand (COD)	mg/l	120	
Biochemical oxygen demand (BOD)	mg/l	40	
Chloride (Cl)	mg/l	750	
Sulphate (SO ₄)	mg/l	750	
Sulphide (SO ₂)	mg/l	0.002	
Ammonia (NH ₄)	mg/l	1	

Parameter	Unit	Maximum permissible limit
Nitrate (NO ₃)	mg/l	10
Total Kjeldahl nitrogen (as N)	mg/l	25
Nitrite (NO ₂)	mg/l	1
Aluminium (Al)	mg/l	5
Arsenic (As)	mg/l	0.1
Beryllium (Be)	mg/l	0.1
Boron (B)	mg/l	0.75
Cadmium (Cd)	mg/l	0.01
Cobalt (Co)	mg/l	0.05
Copper (Cu)	mg/l	0.5
Iron (Fe)	mg/l	2.0
Lead (Pb)	mg/l	0.05
Lithium (Li)	mg/l	2.5
Manganese (Mn)	mg/l	0.2
Mercury (Hg)	mg/l	0.005
Molybdenum (Mo)	mg/l	0.01
Nickel (Ni)	mg/l	0.1
Selenium (Se)	mg/l	0.02
Sodium (Na)	mg/l	200
Total chromium (Cr)	mg/l	0.05
Vanadium (V)	mg/l	0.1
Zinc (Zn)	mg/l	2
Oil and grease	mg/l	10
Total pesticides	mg/l	0.025
Total organic halides	mg/l	1
Cyanide (as CN ⁻) or free cyanide	mg/l	0.1
Phenols	mg/l	0.5
Detergents (as LAS)	mg/l	15

LAS: linear alkylate sulphonate

Note that any industry that existed before the promulgation of the Environment Protection (Standard for Effluent Discharge) Regulations of 2003 and that is within 200 m from the high-water mark of the sea must comply with the permissible limits set out in Schedule 3 of the Regulations.

Table 16.10: Atmospheric emission standards

Pollutant	Applicable to	Standard (maximum limit)
Smoke	All stationary fuel-burning sources	Ringelmann no. 2 or equivalent opacity (not to exceed more than 5 minutes in any period of an hour)
Particulates	(a) Any trade, industry, process, industrial plant or fuel-burning equipment	200 mg/m ³
	(b) Any existing trade, industry process or industrial plant using bagasse as fuel	400 mg/m ³
Sulphuric acid mist or sulphur trioxide	(a) Any trade, industry or process (other than combustion processes and plants for the manufacture of sulphuric acid)	120 mg/m ³ as sulphur trioxide
	(b) Any trade, industry or process in which sulphuric acid is manufactured	30,000 mg/m ³ as sulphur trioxide
Fluorine compounds	Any trade, industry or process in the operation of which fluorine, hydrofluoric acid or any inorganic fluorine compounds are emitted	100 mg/m ³ as hydrofluoric acid
Hydrogen chloride	Any trade, industry or process	200 mg/m ³ as hydrogen chloride
Chlorine	Any trade, industry or process	100 mg/m ³ as chlorine
Hydrogen sulphide	Any trade, industry or process	5 ppm as hydrogen sulphide gas
Nitric acid or oxides of nitrogen	Any trade, industry or process in which the manufacture of nitric acid is carried out	2,000 mg/m ³ as nitrogen dioxide
Nitric acid or oxides of nitrogen	Any trade, industry or process other than nitric acid plant	1,000 mg/m ³ as nitrogen dioxide
Carbon monoxide	Any trade, industry or process	1,000 mg/m ³ as carbon monoxide

ppm: parts per million

Table 16.11: Ambient air quality standards

Ambient pollutant	Averaging time	Standards (µg/m ³)	ppb or ppm
Total suspended solids	24-hour	150	–
	Annual average	50	–
Dust (PM ₁₀)	24-hour	100	–
Sulphur dioxide	1-hour	350	122 ppb

Ambient pollutant	Averaging time	Standards ($\mu\text{g}/\text{m}^3$)	ppb or ppm
	24-hour	200	70 ppb
	Annual average	50	17 ppb
Nitrogen dioxide	24-hour	200	98 ppb
Carbon monoxide	1-hour	25,000	20 ppm
	8-hour	10,000	8 ppm
Ozone	1-hour	100	47 ppb
Lead	3-month average	1.5	–

ppb: parts per billion

ppm: parts per million

PM₁₀: particulate matter less than 10 microns in size

Table 16.12: Noise exposure limits

Noise type	Hours	Limit Decibels (dB(A) Leq)
Industrial noise	07h00 – 21h00	60*
	21h00 – 07h00	55*
Neighbourhood noise	07h00 – 18h00	60
	18h00 – 21h00	55
	21h00 – 07h00	50
Power station noise in residential area	07h00 – 21h00	60
	21h00 – 07h00	55
Power station noise in any other area	At any time	70

* Apply a tonal character adjustment of +5 dB(A) to the measured value where the noise has a definite continuous note, such as a whine or hiss.

16.3.10 Certification of environmental consultants

There is no formal requirement for EIA consultants to be certified in Mauritius. However, the Director will specify in the Terms of Reference (ToR) the nature of specialist studies to be undertaken and the level of expertise and qualifications of the consultant who will be signing off the EIA report. The EIA report must also contain the names, addresses and qualifications of the consultants who prepared the EIA.

16.4 EIA procedural framework in Mauritius

The EIA process, as legislated in the EPA, requires the following steps to be followed:

- At the inception stage, or at least three months before submitting the application for an EIA Licence, the project developer must inform the Director of the DoE by means of a

brief document outlining the proposed undertaking, including the location, nature and scope of the project (project outline document) (see Figure 16.2);

- Though not specifically required in the EPA, a copy of the project outline document is sent to all ministries likely to be involved in evaluating the project;
- Though not specifically required in the EPA, the Ministry arranges a joint site visit with the EIA Committee, the consultants and the project developers;
- The Director then imposes the ToR for the EIA report, the fields of study that must be covered, and the levels of expertise and the qualifications of the consultants to sign the report;
- The EIA report is submitted to the DoE and made available for public inspection;
- The DoE requests any additional information from the developer, if necessary;
- The Director may solicit comments from other government departments, enforcing agencies or non-governmental organisations; and
- The Director of Environment reviews the application and makes a recommendation to the EIA Committee, which reviews the documents and advises the Minister whether to grant an EIA Licence and what conditions to attach.²⁴

Once the Minister responsible for the environment receives all the relevant information from the EIA Committee, s/he can take the decision to grant the EIA Licence. The notice of the decision has to be published in the Government Gazette and in the daily newspapers. If however, the Minister is unable to reach a decision, the EIA report can be referred to a Technical Advisory Committee (section 23(3) of the EPA) for comment (see section 16.2.1).

If the Director is of the opinion that there is insufficient local expertise or technical knowledge to review the EIA report adequately, consideration can be given to using an external reviewer to assist with the review process.

The detailed steps of the process are described in the following subsections, and the process is shown schematically in Figure 16.2.

16.4.1 Screening

The Act identifies (in Part A of Schedule 5) categories of minor activities – for example, common undertakings such as poultry rearing and land parcelling (subdivision) – that require a PER, which is a simplified, short form of an EIA. The list of activities in Part A has been revised and the latest version is presented in Appendix 16-1 of this Handbook. Major undertakings, such as coastal hotels, marinas and jetties, which may have a significant impact on the environment

²⁴ Boucherville Baissac, P, 2003.

(specified in Part B of Schedule 5), require a full impact assessment and an EIA Licence. The list of activities in Part B is presented in Appendix 16-2 of this Handbook.

All other activities and projects not on the list are exempt, though the Minister may request the person carrying out or proposing to carry out a project or activity to submit a PER or an application for an EIA Licence.²⁵ The Ministry has, in fact, developed environmental guidelines for a variety of common, small undertakings, listed in Appendix 16-3.

Only new activities are subject to EIA and existing activities continue to operate without being subject to equivalent controls. Also, the list of activities subject to EIA is not comprehensive enough to cover all potentially environmentally harmful activities. However, the Director of the DoE may serve a prohibition notice on any enterprise or activity if it presents a serious pollution risk, irrespective of whether it has a licence or permit issued under any environmental law or any other enactment. In such cases, the Minister may issue a directive to the operator of the enterprise to submit an EIA. This may also occur if there have been substantial changes to the enterprise or in the manner in which it is being operated.

16.4.2 Preliminary Environmental Report

The PER is a rapid procedure provided for Part A (Fifth Schedule) projects by the Act, based on automatic project approval; this shifts the burden of rejecting a project onto the Ministry. If no response on a project proposal is forthcoming from the Ministry within 45 days of submission, it is deemed that the proposal has been approved. However, the report may only be approved under conditions that the Minister responsible for the environment deems appropriate, and s/he may request a full EIA to be carried out.²⁶

The PER must contain a description of the undertaking, including information on:

- (a) Its location and its surroundings;
- (b) Its process, design and size;
- (c) Any data or information necessary to identify and assess the likely effects of the undertaking on the environment, people and society;
- (d) The measures that the proponent proposes to take to avoid, reduce and, where possible, remedy any significant effect of the undertaking on the environment; and
- (e) Such other aspects of the undertaking as the Director may require.²⁷

The PER must be submitted to the DoE together with:

- (a) A site plan indicating the location of the undertaking;

²⁵ Boucherville Baissac, P, 2003.

²⁶ Boucherville Baissac, P, 2003.

²⁷ Section 16(2) of EPA.

- (b) A non-technical summary, where the report is prepared by a consultant; and
- (c) A certificate issued by a notary expressing his/her opinion as to the ownership of the land on which the undertaking is to be executed.²⁸

²⁸ Section 16(3) of EPA.

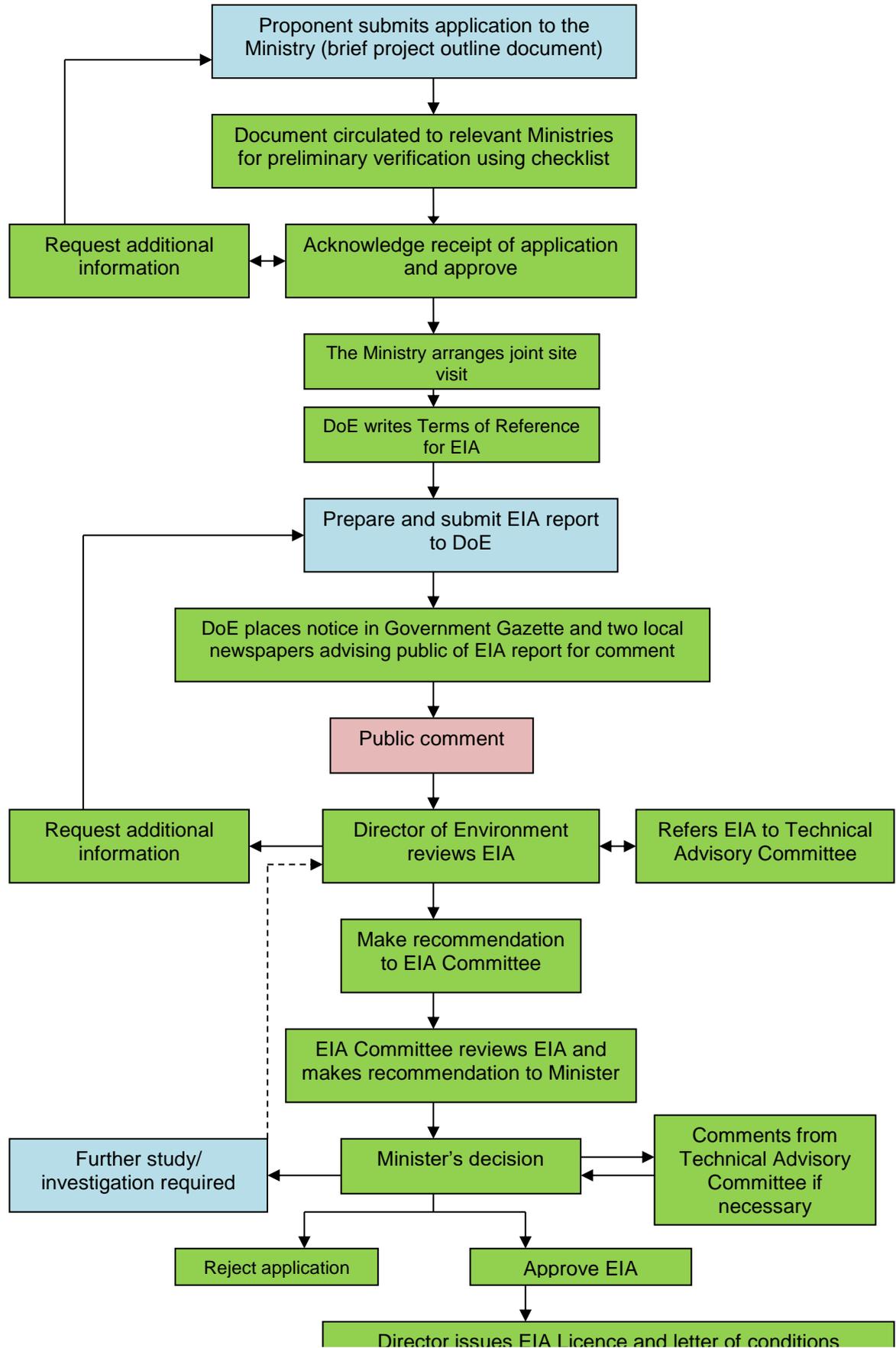


Figure 16.2: EIA process flow diagram

There is no defined scoping phase within the environmental assessment process laid out in the EPA. However, the Minister after reviewing a PER may request the submission of an application for an EIA Licence. In this instance, the PER would function as a scoping report, having identified key environmental impacts which would require more detailed assessment.

16.4.3 Environmental impact assessment

At least three months before submitting an application for an EIA Licence, a proponent must furnish the Director with an outline of the proposed undertaking, including its location, nature and scope. On the basis of this outline, the Director will develop ToR for the EIA report, including a list of specialist studies to be conducted and the levels of expertise and the qualifications of the lead consultants (Figure 16.2).²⁹

Section 18(2) of the EPA provides guidelines on the contents of an EIA report, which are summarised below:

- The name and address of the proponent;
- The ownership of the undertaking and of the land on which it is being conducted;
- The name, address and qualifications of the consultant who prepared the EIA;
- The precise location and surroundings of the undertaking, the zoning of the site, and the number of similar undertakings in the area;
- The principle, concept and purpose of the undertaking;
- The direct or indirect effects that the undertaking is likely to have on the environment;
- An assessment of the social, economic and cultural effects that the undertaking is likely to have on people and society;
- Any actions or measures that the proponent proposes to take to avoid, prevent, change, mitigate or remedy, as far as possible, the likely effects of the undertaking on the environment;
- An assessment of the inevitable adverse environmental effects that the undertaking is likely to have on the environment, people and society, where it is implemented in the manner proposed by the proponent;
- An accurate assessment of the irreversible and irretrievable commitment of resources that will be involved in the undertaking, where it is implemented in the manner proposed by the proponent;
- Any alternative manner or process by which the undertaking may be carried out so as to cause less harm to the environment;
- An environmental monitoring plan;

²⁹ Section 15 (3) and 15 (4) of EPA.

- Information pertaining to the decommissioning of the project at the end of its life and associated impacts, proposed measures to return the site as far as possible to its former state, or rehabilitation measures;
- In the case of a new infrastructure proposal, an environmental management plan to be implemented during the construction phase; and
- Such other information as may be necessary for a proper assessment and review of the potential impact of the undertaking on the environment, people and society.

Section 19(1)(b) of the EPA requires the proponent or the EIA consultant to include all relevant particulars relating to the public consultation process in the EIA report.

Once the EIA report has been completed, the proponent must submit 15 hard copies and one electronic copy of the EIA report to the Director. The reports have to be signed by the developer and all the principal consultants who prepared the report (section 19(1)). The report also has to be accompanied by:

- Proof of ownership of the undertaking;
- A site plan signed by a land surveyor;
- An executive summary of the report; and
- A certificate issued by a notary regarding the ownership of the land.³⁰

The Act also clarifies the position regarding the provision for exempt activities. This provision (section 17(1)) allows the Minister to request a proponent to submit an EIA in respect of any activity that, although unlisted, is likely to have a major impact on the environment. Finally, the Act stipulates that any EIA Licence will lapse if the project is not implemented within two years from the date of issue.

Once the EIA has been submitted, it is open for public inspection at the DoE and at the municipal offices for the area in which the proposed development will take place. The Director places notices to this effect in two issues of the Government Gazette and two daily newspapers, with an interval of seven days between each publication. The notice must include a summary description of the project, the project location, the location where the EIA report may be inspected, and the closing date for public comment. Section 20(3)(d) allows a period of not less than 10 days and not more than 21 days from the date of first publication for public comment, but the Director can extend this time if necessary (section 20(4)). The Director may also publish all or part of the EIA report on the Internet.

³⁰ Section 18(1)(c) of EPA.

16.4.4 Review and approval of the EIA report

Once the Director receives the EIA report, s/he must review it and send it together with any comments to the EIA Committee no later than 42 days after the expiry date for public comments.

The Director may also make use of any of the following:

- Request observations and comments on the EIA in writing from any public department, enforcing agency or non-governmental organisation.
- Set up a technical committee to advise him/her on any aspect of the undertaking and EIA.
- Ask the proponent to carry out further studies or submit additional information to ensure that the EIA is as comprehensive as possible (see Figure 16.2).

Once the Director has received all comments, s/he will pass the EIA Licence application and all related documentation to the EIA Committee, which will examine the application and make recommendations to the Minister within 14 days of receiving the documentation from the Director.

The Minister will make a decision on the application within 7 days of the receipt of the recommendations from the EIA Committee (section 23(1)). The Minister may then do one of the following:

- Approve the issuing of an EIA Licence with terms and conditions as required.
- Reject the application.
- In the event that s/he cannot make a decision and requires additional advice on the EIA, refer the EIA to a technical advisory committee, set up as provided for in section 12. This technical advisory committee should submit their advice to the Minister within 14 days of receiving an instruction from the Minister to do so. The Minister should then make his/her decision within 14 days of receiving the advice from the technical advisory committee (Figure 16.2).

In considering the approval of an EIA, the Minister and his/her advisors will take into account (section 24(1)):

- Such policy or environmental guidance as may be published in respect of an undertaking;
- The environmental factors considered in the EIA;
- The measures proposed to avoid or minimise adverse effects on the environment, people or society;
- The alternatives proposed in the EIA; and
- Other matters that may be relevant in weighing the significance or insignificance of the potential environmental impact of the undertaking.

16.4.5 Monitoring and enforcement

The lack of enforcement of environmental laws has historically been a problem. This has been due to a shortage of staff, as well as a lack of awareness and a sense of urgency on the part of the enforcing institutions. To remedy this situation, the Ministry, in collaboration with the Mauritius Police Force, created the Environmental Police on 1 December 2000. This unit is composed of police officers under an inspector. Its mission is the protection of the environment through the enforcement of environment legislation and assisting the Ministry and other enforcing agencies in their work.

A post EIA Monitoring Unit has been established in terms of the Act, which is responsible for among other activities, setting up monitoring programmes to follow up progress after the granting of an EIA Licence or PER Approval. Furthermore, section 84 empowers the Director of the DoE to carry out or cause to be carried out environmental quality monitoring. The Director may request a proponent to carry out environmental quality monitoring and provide records of such monitoring.

16.4.6 Appeals

In terms of section 54(2) of the EPA, an appeal can be lodged by a person with the Environment and Land Use Appeal Tribunal (created under the Environment and Land Use Appeal Tribunal Act, 5 of 2012) against any of the Minister's decisions relating to the granting or refusal of an EIA Licence, conditions relating to these, and the enforcement of PERs and EIAs, if such a person is aggrieved by the Minister's decision. The appeal should be lodged within 30 days of the decision being published in the Government Gazette. The Tribunal consists of a Chairman, a barrister at law of not less than ten years' standing and appointed by the Public Service Commission, as well as other members appointed by the Minister, with at least three years' experience in a field related to the protection and management of the environment. The decision taken by the Tribunal will be communicated to the Minister. In addition, if any objection on a point of law does exist in the judgment of the Tribunal, an appeal can be made through the Supreme Court.³¹

16.4.7 Strategic environmental assessment

The concept of strategic environmental assessment (SEA) was introduced in the Act, although it was only alluded to in Schedule 1.³² No further mention of SEA is made in the body of the Act, thus leaving considerable room for interpretation. However, Schedule 1 of the Act lists the activities that require a SEA as being major plans and programmes, such as master plans, solid waste management plans, water management plans, and the National Physical Development

³¹ Boucherville Baissac, P, 2003.

³² SEA was defined in the 2002 EPA, but this definition was deleted in the 2008 amendment Act

Plan. However, there is a concern that with no further elaboration, regulations or guidelines on the topic, SEA will not be utilised to its fullest extent.

16.4.8 Trans-boundary impacts

The legislation makes no mention of trans-boundary impacts. As an island state, Mauritius shares no physical borders with any other country. It does, however, need to consider shared international waters and the impacts of its activities on these waters. The country is a signatory to the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and, therefore has international obligations regarding its impact on shared marine and coastal systems.

16.5 Other relevant environmental legislation in Mauritius

Environmental issues cut across a variety of sectors, and numerous pieces of legislation in Mauritius 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 16.13.

Table 16.13: Other potentially applicable sectoral requirements

Sector	Primary agency	Title and date of document	Purpose
Water resources (use of)	Ministry of Housing and Lands	Water Supply for Domestic Purposes Regulation, 1992, of Act No. 4 of 1985	
	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development	Environment Protection (Drinking Water Standards) Regulations, Government Notice No. 55 of 1996	The Regulations relate to drinking water quality.
		Groundwater Act, 1982, and Regulations, 1973	
Effluent disposal	Ministry of Energy and Public Utilities Waste Water Management Authority	Wastewater Management Authority Act, 2000	The Act sets up the Wastewater Management Authority.
	Ministry of Social Security, National Solidarity, and Environment and	Various Regulations (see section 16.3.3)	Several Regulations have been made about the discharge of effluent into inland water bodies and the ocean.
		Rivers and Canals Act, 1863	The Act prohibits the pollution of rivers, streams and canals. It is outdated and needs revision.

Sector	Primary agency	Title and date of document	Purpose
	Sustainable Development	Marine Pollution Bill, 2004	The Bill incorporates the obligations under the International Convention for the Prevention of Pollution from Ships; the International Convention on Civil Liability for Oil Pollution; the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage; the International Convention on Oil Pollution Preparedness, Response and Co-operation; and the United Nations Convention on the Law of the Sea. The final draft of the Bill is at the Attorney General's office for vetting.
Noise	Ministry of Local Government and Outer Islands	Noise Prevention Act, 1988	The Act sets out provisions for noise control.
	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development	Environment Protection (Standards for Noise) Regulations, 1997	The Regulations relate to noise emissions and standards.
Waste	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development	Waste Audit Regulations (draft)	The Regulations will cover waste inventories and the development and implementation of environmental management plans. It will also establish design criteria for waste disposal sites.
	Ministry of Health and Quality of Life	Public Health Act (Disposal of Refuse) Regulations, 1984	The Act covers the disposal of refuse and hazardous waste.
	Ministry of Local Government and Outer Islands or local authorities	Local Government Act, 1989, and associated Regulations, 1997	These relate to solid waste disposal, other than hazardous waste.
	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development	Hazardous Waste, Regulations, 2002	The Regulations relate to hazardous waste not covered by the Pesticides Control Act of 1925.
Air quality	Ministry of Health and Quality of Life and the Director of Environment	Environment Protection (Standards for Air) Regulations, 1998	The Regulations set up national environmental standards for the emission of pollutants into the atmosphere. All factories in Mauritius have to comply with the standards.
Radiation		Radiation Protection Act, 1992	The Act controls radiation sources, radioactive substances, their importation into the country, and the storage of radioactive materials.

Sector	Primary agency	Title and date of document	Purpose
Planning and zoning	Local authority and/or Ministry of Public Infrastructure, Land Transport	National Physical Development Plan and Outline Schemes ³³	A Development Permit is required in terms of the National Physical Development Plan. Development is defined as building operations, change in the use of land or buildings, or the subdivision of land.
	Town and Country Planning Board (of the Ministry of Housing and Lands)	Town and Country Planning Act, No. 6 of 1954	A Zoning/Rezoning Certificate is required in terms of the Act.
Conservation	Ministry of Agro Industry and Food Security	Wildlife and National Parks Act, No. 13 of 1993	The Act contains regulations for the protection of Mauritian native fauna and flora and the creation of national parks.
		Wildlife Regulations, 1998	Permits are required to sell, export, import and exhibit any listed wildlife species.
	Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping	Fisheries and Marine Resources Act, 1999, as amended by Act No. 21 of 2002 and Act No. 10 of 2005	This Act gives power to the Minister to prescribe measures for the protection and management of fisheries and marine resources, including fishing by certain means, in certain areas, and during certain times of the year.
		Fisheries Regulations	Regulations have been made relating to gill net prohibition, reserved access on Rodrigues, toxic fish, vessel monitoring, etc.
		Maritime Zone Act, 2005	The Act defines the maritime zone and Mauritian rights to marine resources.
	Ministry of Social Security, National Solidarity, and Environment and Sustainable Development	Wetland Bill	The Bill provides for the application of the principles of the Ramsar Convention, the wise use of wetlands, and the prohibition of activities that may be detrimental to wetlands. It also makes provision for lists of threatened wetlands and catchments.
National Parks and Conservation Service			
Agricultural and land	Ministry of Agro Industry and Food Security	Pesticides Control Act, 1972 (repealed, see below) and Pesticides Control (Restricted Pesticides) Regulations, 1982	

³³ As noted, Outline Schemes provide the local authorities with a guide for implementing the strategies and policies of the National Physical Development Plan – a strategic plan that defines the broad objectives, strategies and policies for the physical development of the country – at regional and local level.

Sector	Primary agency	Title and date of document	Purpose
		Dangerous Chemicals Control Act, 2004 (repeals Pesticides Control Act, 1972)	The Act controls and regulates dangerous chemicals and emissions, sets up a regulatory board, and establishes enforcing agencies.
		Chemical Fertilisers Control Act of 1981	The Act controls the sale, use and composition of fertilisers.
Tourism	Ministry of Tourism	Tourism Act, 2004	The objective of the Act is to optimise the social, economic and environmental benefits of tourism in Mauritius.
Labour employment and occupational health	Ministry of Labour, Industrial Relations, Employment and Training	Labour Act 1975 No. 50 of 1975	Addresses matters pertaining to remuneration, work conditions and establishes the Labour Advisory Board

Appendix 16-1: List of undertakings requiring a Preliminary Environmental Report

As per Fifth Schedule, [sections 15(2), 16(1), 17(1), and (2), 18(1) and 28]

Part A

1. Construction of helipads;
2. Coral crushing and processing;
3. Creation of bathing areas by mechanical means;
4. Depot for 50 buses or more;
5. Discotheque and nightclub;
6. Food processing industry, excluding small and medium enterprises;
7. Foundry, smelting plant or metallurgical work;
8. Galvanising industry;
9. Industrial-scale laundry and dry-cleaning within 1 km from high-water mark;
10. Land reclamation and backfilling;
11. Manufacture of animal feed;
12. Manufacture of ceramics ;
13. Manufacture of paint, pigment and varnish;
14. Manufacture of photographic films;
15. Manufacture of plastics and plastic products;
16. Manufacture of rubber products;
17. Mechanical removal of marine flora, such as sea grasses and marine algae;
18. Parcelling out of land above 5 ha for agricultural purposes involving infrastructural work;
19. Quarantine station for livestock;
20. Ready-mix concrete plant;
21. Rearing of livestock, including cattle, goats, pigs and sheep;
22. Rearing of poultry above 5,000 heads;
23. Recycling plant;
24. Rendering plant ;
25. Sawmill;
26. Slaughter house;
27. Textile industry associated with washing, bleaching and printing; and
28. Timber treatment plant

Appendix 16-2: List of undertakings requiring an EIA

As per Fifth Schedule, [sections 15(2), 16(1), 17(1), and (2), 18(1) and 28]

Part B

1. Asphalt plant, other than an asphalt plant set up temporarily for the purposes of a project by a public department;
2. Assembly of motor vehicles;
3. Block-making plant manufacturing above 10 000 blocks per day;
4. Bulk processing, storage and handling of petroleum products, liquefied gas, coal and petrochemical products;
5. Clinic and hospital, including animal hospital;
6. Construction of airports and runways;
7. Construction of breakwaters, groins, jetties, revetments and seawalls;
8. Construction of dams and dykes;
9. Construction of marinas;
10. Conversion of forest land to any other land use;
11. Creation of and/or development on lagoons;
12. Desalination plant;
13. Distillery;
14. Dye house;
- 14A. Fish farm in the fish farming zones under section 8A of the Fisheries and Marine Resources Act;
15. Fishing port;
16. Golf course;
17. Harbour dredging operation, construction and development;
18. Highway and mass transit system;
19. Hotel and integrated resort scheme, including extension, with first boundary within 1 km from high-water mark;
20. Housing project and apartments above 50 units within 1 km from high-water mark;
21. Incineration of municipal solid waste, quarantine waste, medical and clinical wastes;
22. Industrial manufacture of beer, wine and spirit;
23. Lagoon dredging and reprofiling of sea beds;
24. Land clearing and development, including installation of high-tension lines in environmentally sensitive areas, such as water catchment areas, waterlogged areas, wetlands, mountain slopes and islets;
25. Landfill;
26. Manufacture of batteries;
27. Manufacture of dangerous chemicals, chemical fertilisers and pesticides;
28. Manufacture of lime;
29. Manufacture and packing of cement;

30. Manufacture of pharmaceutical products;
31. Modification of existing coastline such as beach reprofiling, coastal protection works and removal of basaltic and beach rock;
32. Municipal wastewater treatment plant;
33. Offshore sand mining;
34. Parcelling out of land above 5 ha:
 - (a) Other than by way of division in kind among heirs;
 - (b) To be allocated to persons other than such persons as may be approved by the Minister responsible for the subject of agriculture and who are:
 - (i) Occupiers of housing units forming part of sugar estate camps owned by sugar millers or sugarcane planters;
 - (ii) Occupiers of housing units forming part of tea estate camps;
 - (iii) Workers affected by the closure of a sugar factory; or
 - (iv) Workers opting for the Voluntary Retirement Scheme
35. Petroleum refinery;
36. Power generation plants;
37. Pulp and paper manufacture;
38. Rearing of monkeys;
39. Rock quarrying;
40. Sea outfall;
41. Shipyard and dry dock;
42. Stone crushing plant, other than a stone crushing plant set up temporarily for the purposes of a project by a public department;
43. Sugar factory or refinery;
44. Tannery and leather finishing;
45. Transfer station for solid waste; and
46. Used or waste oil treatment and disposal

Appendix 16-3: List of environmental guidelines for non-scheduled undertakings under the EPA, 2002³⁴

1. Poultry rearing below 5,000 heads;
2. Assembly of batteries;
3. Cold rooms and refrigeration plants;
4. Bus depot of less than 50 buses;
5. Bakery;
6. Demolition of buildings;
7. Multi-purpose hall, including wedding hall;
8. Filling station;
9. Inland hotel;
10. Food processing for small and medium enterprises;
11. Food canning industry;
12. Mirror manufacture;
13. Processing, bottling and canning of beverages, syrup and water;
14. Pesticides formulation and packing;
15. Refining and processing of edible oils and fats;
16. Wastewater treatment plant;
17. Re-treading of tyres;
18. Traffic centre;
19. Residential care home;
20. Manufacture of polyurethane foam;
21. Nautical centre;
22. Block-making plant manufacturing up to 10,000 blocks per day;
23. Undersea walk;
24. Electroplating;
25. Bulk storage of pesticides and dangerous chemicals;
26. Manufacture of soap and detergents;
27. Timber warehousing;
28. Decommissioning of wastewater treatment plant;
29. Livestock rearing including cattle, goat and sheep (up to 20 cattle heads, 50 goat heads and 50 sheep heads);
30. Stone crushing plant set up temporarily for the purpose of a project; and
31. Asphalt plant set up temporarily for the purpose of a project by a public department

³⁴ <http://environment.govmu.org/English/legislations/Pages/Environmental-Guidelines.aspx>

Acronyms

DoE	Department of Environment
EAD	Environmental Assessment Division
EIA	environmental impact assessment
EPA	Environment Protection Act
NEAP	National Environment Action Plan
PER	Preliminary Environmental Report
Rs	Mauritian Rupees
SEA	strategic environmental assessment
ToR	terms of reference

Useful contacts

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