

3 ENVIRONMENTAL POLICY, INSTITUTIONAL AND LEGAL FRAMEWORK IN MAURITIUS

3.1 The Environmental Protection Act 2002

3.1.1 The Act

The Environment Protection Act 2002, as amended, provides for the protection and management of the environmental assets of Mauritius so that their capacity to sustain the society and its development remains unimpaired and to foster harmony between quality of life, environmental protection and sustainable development for the present and future generations; more specifically to provide for the legal framework and the mechanism to protect the natural environment, to plan for environmental management and to co-ordinate the inter-relations of environmental issues, and to ensure the proper implementation of governmental policies and enforcement provisions necessary for the protection of human health and the environment of Mauritius.

Part IV of the EPA2002, sets out the legal framework for the Environmental Impact Assessment, a tool for sound decision-making; a formal process for ensuring that potential environmental impacts are considered in major project approval.

The Environment Protection (amendment of Schedule) Regulations 2006, lists

- in Part B, “*Undertakings Requiring an Environmental Impact Assessment*”, and includes *inter alia*:- “**Harbour dredging operation, construction and development**”.
- In part A, “*Undertakings requiring a Preliminary Environmental Report*”, and includes *inter alia*:- “**Land reclamation and backfilling**”

In accordance with section 18 of the EPA 2002, an application for an EIA Licence is being filed to the EIA Division of the Ministry of Environment & Sustainable Development.

3.1.2 The Requirement for Environmental Impact Assessment (EIA)

Section 18 of the EPA2002 sets out procedures for Application for an EIA licence, namely:

- (1) A proponent applying for an EIA licence in respect of an undertaking specified in Part B and Part C of the First Schedule, or in accordance with a request under section 16(6)(c) or 17(1), shall submit to the Director an EIA report –
- a) in electronic form, and in 15 printed copies, and such additional copies as may reasonably be required by the Director;
 - b) signed by the proponent or his duly appointed legal representative and countersigned by the consultant referred to in section 19 who prepared the report;
 - c) accompanied by-
 - i. satisfactory proof of ownership of the undertaking;
 - ii. a site plan prepared and signed by a land surveyor;
 - iii. a non-technical summary of the report;
 - iv. a certificate issued by a notary expressing his opinion as to the ownership of the land on which the undertaking is to be executed, or where the proponent is not the owner of the land, by a written evidence of the permission of the owner, and a certificate issued by a notary expressing his opinion as to the owner's title.
- (2) The EIA report shall contain a true and fair statement and description of the undertaking as proposed to be carried out by the proponent, and shall include –
- a) the name and address of the proponent;
 - b) the ownership of the undertaking and of the land on which it is being conducted;
 - c) the name, address and qualifications of the consultant who prepared the EIA;
 - d) the precise location and surroundings of the undertaking, the zoning of the site and the number of similar undertakings in the area;
 - e) the principle, concept and purpose of the undertaking;
 - f) the direct or indirect effects that the undertaking is likely to have on the environment;
 - g) an assessment of the social, economic and cultural effects which the undertaking is likely to have on the people and society;
 - h) any actions or measures which 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;
 - i) 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;

- j) an accurate assessment of the irreversible and irretrievable commitment of resources which will be involved in the undertaking, where it is implemented in the manner proposed by the proponent;
- k) any alternative manner or process in which the undertaking may be carried out so as to cause less harm to the environment;
- l) an environmental monitoring plan;
- m) information pertaining to the decommissioning of the project at the end of its life cycle and associated impacts, proposed measures to return the site as far as possible to its former state, or rehabilitation measures;
- n) in the case of a new infrastructure proposal, an environmental management plan to be implemented during the construction phase; and
- o) 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.

3.1.3 Environmental Protection Standards and Guidelines

The following Mauritian Environmental Protection Standards and Guidelines have been adopted to assess the environmental performance of the project:

- Environment Protection (Environmental Standards for Noise) Regulations 1997
- Environment Protection (Standards for Air) Regulations 1998
- Guidelines for Coastal Water Quality (Department of Environment, Ministry of Local Government and Environment, 1999).
- Environmental Protection (Standards for effluent discharge into the ocean) Regulations 2003

In the absence of Mauritian Standards or Guidelines for sediment quality of dredged material, the guidelines from the London Convention as well as the action levels for dredged material in common use internationally have been adopted.

3.2 Other Main Applicable Legislation and Policies

3.2.1 National Environmental Strategies

Mauritius has now its second National Environmental Strategies (NES). This is the Mauritian blueprint for sustainable development and contains many recommendations, which are in line with Agenda 21 of the Rio Conference. As such, the NES shall contribute enormously to address most of the environmental problems faced by the country.

The NES comprises several reports and it includes:

- The National Environment Action Plan II (NEAP II)
- The Environment Investment Programme II (EIP II)
- The Review of Legal and Institutional Framework for Environmental Management in Mauritius

The NES carries forward and extends the substantial achievements of the first National Environmental Action Plan (NEAP1) initiated in 1988. At that time Mauritius was among the first few African countries that developed such a strategy plan. The NES presents an environmental strategy and action plan for the period yr. 2000 to 2010.

It contains a number of strategic thrusts including:

- Control pollution;
- Promote clean technology;
- Educate people to be environmentally conscious;
- Conserve resources;
- Protect the local environment;
- Protect the global environment.

3.2.2 The National Biodiversity Strategic and Action Plan (2006-2015)

This document meets Mauritian obligations under Article 6a of the Convention on Biological Diversity (CBD) by setting out a National Biodiversity Strategy and Action Plan (NBSAP) that reflects and aims to meet the measures of the CBD. This document has been divided into two parts. Part I deals with Mauritius only and part II with Rodrigues so as to reflect the semi-autonomous nature of Rodrigues' governance and the distinct biogeography of the island.

Chapter 3 of the document deals with Freshwater, Coastal and Marine Biodiversity.

3.2.3 The Planning and Development Act 2004

The Planning and Development Act 2004 is an Act to modernise town and country planning and make comprehensive provision with respect to land use planning and development in Mauritius.

In accordance with the Second Schedule (Section 24) of the Act, Harbour dredging operation, construction and development are classified as State Significant Developments, i.e. major/strategic projects having national or cross-boundary significance should be processed at central Government level.

3.2.4 The National Development Strategy 2003 & Planning Policy Guidance 2004

The National Development Strategy (NDS) was developed in 2003 in replacement of the 1993/1994 National Physical Development Plan.

The NDS volume 1 (NDS1) deals with Development Strategy and Policies; the NDS volume 2 (NDS2) deals with the Institutional and Legislative Aspects

The National Development Strategy, Ministry of Housing and Land, seeks to improve the environment by adapting the following measures:

- To safeguard valued elements of the natural and built environments
- To use natural resources in a sensitive and sustainable manner
- To promote land and property development and management practices which will benefit the environment and all Mauritians, and
- To ensure that development makes a positive contribution to the environment

This overall strategy is considered relevant and appropriate and should be the overall strategy for environmental policies.

The main policy of NDS1 relevant to the project is as follows:

Policy P1 – Ports

Long term sustainable development of the port (including strategic road access) should be supported for international deep sea and short sea shipping.

Justification: Development strategies should identify and safeguard interchange facilities and access improvements to ports, together with appropriate sites for port and wharf use needed to meet changing market requirements.

Appendix 1 of the NDS2 deals with the State Significant Projects listed in the Planning and Development Act 2004.

3.2.5 The Ports Act 1998 and Regulations

An Act to provide for the establishment and management of the Mauritius Ports Authority which shall be a body corporate, shall be the sole national port authority to regulate and control the port sector and provide marine services.

Some key sections of Part IV of the Act deals are reproduced below, namely:

Section 27. Power to construct works

The Authority may lay down, maintain and operate in a port such tasks and equipment as are required for or in connection with any of its fractions.

Section 28. Control of development

- 1) All development in a port shall be in accordance with such rules, regulations and procedures as the Authority may make or lay down.
- 2) No person other than the Authority shall carry out any development within a port unless he has been duly authorised by the Authority.
- 3) The Authority may, upon such terms and conditions as it thinks fit, grant to any person appropriate authorisation to carry out development within a port.
- 4) In this section, “development” includes construction, placing, alteration renewal or extension of any building, structure or works in, on, over or under any land or waters.

Section 29. Power to allocate facilities for exclusive or preferential use

The Authority may allocate and set apart any part of a port for the exclusive use of any particular vessel or class of vessel or traffic.

Section 30. Protection of the environment

- 1) In discharging any of its functions, the Authority shall, so far as is consistent with the proper and efficient discharge of those functions—
 - a) have regard to protection of the environment; and

- b) endeavour to achieve a reasonable balance between that consideration and any other considerations to which it is required to have regard.
- 2) The Authority shall have power to take such action as it considers necessary or desirable for the performance of any function relating to the protection of the environment which may be conferred or imposed upon it by or under any enactment.

Section 233(a) of the Ports (Operations & Safety) Regulations 2005 stipulates that no person shall fish within the limits of a port.

3.2.6 The Port Master Plan 2002

Port development has been carried out in accordance with the recommendations contained in the previous Port Master Plans. With the completion of the major projects recommended in the 1996 Master Plan and following changes brought about in the corporate objectives of the MPA after the promulgation of the Ports Act 1998, it was felt that the Authority should have at its disposal a consistent development plan valid at least up to the horizon year 2025.

3.2.7 The Port Master Plan 2009

The objectives of the Port Master Plan 2009 are reproduced below:

- To review the cargo traffic trend at Port Louis Harbour and in the region and prepare a realistic traffic forecast for the next 20 years in the light of the changing world trade environment and its effect on the Mauritian economy.
- To review shipping trends in the region as to the type and vessel size including calling pattern at Port Louis Harbour.
- To review land use plan made in earlier Port Master Plan studies.
- To assess the impact of ongoing port development projects and other infrastructures development in the country on the Port and port activities.
- To make recommendations for future port infrastructure requirements in the light of the most realistic traffic forecast scenario, identification of their possible locations, definition of the scope of works and the submission of preliminary layout plans and specifications for the proposed infrastructures including budgetary cost estimates.
- To carry out wave model studies for the whole Port with the present Port configurations and with all the proposed infrastructure developments recommended in the present master plan study.

- To assess the requirement of the Port for land space and identify alternative land use scenarios and propose a land use plan for the next 20 years.

In terms of infrastructure at Mauritius Container Terminal, the Port Master Plan 2009 recommended that the MCT quay be extended by 440m to accommodate three 8000 TEU vessels at any one time and to have the channel and berth dredged to -16m Chart Datum (CD) and subsequently to -18m CD.

Accordingly, and following detail design, it is intended to proceed with the container terminal expansion in phases and undertake the extension of the berth by about 240m and to undertake the dredging to -16.5m CD.

3.2.8 The Maritime Zone Act 2005

The Maritime Zones Act 2005 provides for the conservation and management of natural resources (Section 15.2.d) in the exclusive economic zone of Mauritius.

3.2.9 The Fisheries and Marine Resources Act 2007

An Act to amend and consolidate the law relating to the management, conservation, protection of fisheries and marine resources and protection of the marine ecosystems.

The Protection of the aquatic ecosystem is regulated by Section 69 of the Fisheries and Marine Resources Act 200, as follows:

- (1) No person shall place, throw, discharge or cause to be placed, thrown or discharged into the maritime zones or into a river, lake, pond, canal, stream, tributary or wetland any poisonous substance.
- (2) No person shall –
 - (a) except with the written approval of the Permanent Secretary, cut, take or remove;
 - (b) damage,
a mangrove plant.

- (3) (a) No person shall place, construct or cause to be placed or constructed any structure within the territorial sea or internal waters, as defined in the Maritime Zones Act 2005, except with the written authorisation of the Permanent Secretary.
- (b) The Permanent Secretary may, on granting an approval under paragraph (a) impose such terms and conditions as he may deem fit.

3.2.10 Occupational Safety & Health Act 2005

OSHA provides for the duties and responsibilities of the employer regarding safety, health and welfare towards his employees and other persons who may be affected by his activities as well as registration requirements of the same.

3.2.11 Central Water Authority Act 1991

The Central Water Authority is responsible for the control, development and conservation of water resources. The Authority shall be the sole undertaker for the supply of water for domestic, commercial, and industrial purposes throughout Mauritius.

3.2.12 Waste Water Authority Act 2000

The Waste Water Authority Act, 2000 places restrictions on wastewater effluent disposal. Section 3 of the Act established the Wastewater Authority represented by the Permanent Secretary which is empowered to monitor, supervise, manage and carry out waste water works to levy taxes and charge expenses.

Section 7 of the Act states that:

- (1) No person shall:
- a. cause effluent to overflow along any gutter, canal or surface
 - b. construct or alter any house sewer, treatment plant or disposal system
 - c. cause rainwater, surface water or sub-soil water to enter any house sewer
 - d. Construct or install any treatment plant or any assembly meant for the collection, conveyance, treatment or disposal of effluent, without prior approval of the authority
 - e. Use a garbage grinder or similar appliance, which is connected to a house sewer.

- (2) No person shall allow water from prises, taps or other outlets, whether they are defective or not, to run freely and in such manner or quantity as to be likely to find its way into any wastewater system.
- (3) No person shall put or allow to be put into any water-closet, trap, gully or other inlet to the waste water system, any matter which is likely to cause or tend to cause an obstruction in the sewage system or the free flow of effluent.
- (4) No person shall put or allow to be put in the wastewater system any matter which is likely to affect the system or to be prejudicial to health unless:
 - a. Special agreement has been entered into with the Authority
 - b. The effluent is of a type specified by the Authority; and
 - c. Such fees as determined by the Authority have been paid.

3.3 International Treaties and Agreements

Mauritius is signatory to a number of international treaties and agreements on environmental protection and conservation as shown on Table 2 below:

<u>ENVIRONMENTAL LAW</u>	
Convention on International Trade in endangered species of Wild Flora and Fauna (CITES)	Ratified on 28.04.75
United Nations Framework Convention on Climate Change	Ratified on 17.8.92
Convention on Biological Diversity	Ratified on 17.8.92
Vienna Convention for the Protection of the Ozone Layer	Acceded on 18.8.92
Montreal Protocol on Substances that Deplete the Ozone Layer	Acceded on 18.8.92
London Amendment to the Montreal Protocol (1990)	Acceded on 20.10.92
Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa	Ratified on 29.10.92
Basel Convention on the Control of Transboundary	Ratified on 24.11.92

Movements of Hazardous Wastes	
Copenhagen Amendment to the Montreal Protocol (1992)	Ratified on 30.11.93
International Convention to Combat Drought and Desertification	Acceded on 11.1.96
Convention for the Protection, Management and Development of the Marine and Coastal Environment in the Eastern African Region and Related Protocols (Nairobi Convention)	Ratified on 3.07.2010
1992 Civil Liability Convention CLC and Fund Convention	Acceded on 06.12.2000
The Kyoto Protocol to the Convention on Climate Change	Ratified on 9.05.01
The Stockholm Convention on Persistent Organic Pollutants	Ratified on 05.07.04
Ramsar Convention on Wetlands of International Importance (Ramsar)	Ratified on 25.05.01
Cartagena Protocol on Biosafety	Ratified on 9.05.01
Montreal (1997) and Beijing (1999) Amendments to the Montreal Protocol on substances that Deplete the Ozone Layer	Accepted on 03.03.03
<u>MARINE POLLUTION</u>	
International Convention for the Prevention of Pollution from Ships (MARPOL), 1973 as amended by the Protocol, 1978	Acceded on 06.04.95
International Convention on Oil Pollution Preparedness, Responses and Cooperation (OPRC) 1990	Acceded on 02.03.2000
The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972, commonly called the "London Convention" or "LC '72"	1972

Table 2: Relevant International Treaties and Agreements signed by Mauritius

The most relevant International Convention to the Project is the Ramsar Convention on Wetlands of International Importance (Ramsar).

The annotated Ramsar list of Wetlands of International Importance (www.ramsar.org) classifies the Rivulet Terre Rouge Estuary Bird Sanctuary (Ramsar site No. 1094) as a protected reserve listed as Ramsar wetland types:

- F) Estuarine
- A) Shallow marine waters and
- G) Intertidal mud, sand or salt flats, internationally important for 14 regularly visiting migratory birds, as well as for three species of endemic plants.

Situated in close proximity to the capital, Port Louis, the site has protected area status and a visitors' centre has been established. Access to adjacent fishing facilities and unrelated recreational uses have been provided for nearby. Port-related activities present a chronic risk, but oil spill contingency plans are in place; agricultural effluents are present but plans are in place to minimize their adverse effects. As an ex-dumping ground, leachates are detected, but a rehabilitation plan is under study. Invasive species of flora are being removed, and a management plan has been prepared. Preparations for this accession were assisted by the Swiss Grant for Africa.

Mauritius is a signatory to the Nairobi Convention for the Protection and Management and Development of the Marine and Coastal Environment of the Eastern African Region, 2010.

Article 6 of the Convention requires:

"The Contracting Parties shall take all appropriate measures to prevent, reduce and combat pollution of the Convention area caused by dumping of wastes and other matter at sea from ships, aircraft, or manmade structures at sea, taking into account applicable international rules and standards and recommended practices and procedures."

Mauritius does not have specific standards or guidelines for the assessment of sediment quality. However, *Environmental Protection Act, 2002* (Mauritius) requires "an assessment of the inevitable adverse environmental effects that the undertaking is likely to have on the environment, people and society". In the absence of Mauritian standards or guidelines, obligations and general assessment guidelines from the London Convention and Protocol, which give direction for dealing with the dumping of dredged material at sea, as well as

specific sediment chemical quality action levels for dredged material in common use internationally have been used as a guide.