

## 4 BOTSWANA

### 4.1 Constitutional Requirement for Environmental Protection in Botswana

Botswana's commitment to the sustainable management of natural resources is supported by various policies and legislation as well as by *Vision 2016*, which states that:

*By the year 2016, economic growth and development in Botswana will be sustainable. Renewable resources will be used at a rate that is in balance with their regeneration capacity ... The wildlife of Botswana will be managed for the sustainable benefit of the local communities, and in the interests of the environment as a whole ... By the year 2016, Botswana will have taken strong measures to limit pollution that would otherwise have resulted from rapid industrialisation.<sup>1</sup>*

Sustainable development is one of the four principles which guide the national development planning process, the other three being rapid economic growth, economic independence and social justice. An environmental audit of the current National Development Plan was done in 1999<sup>2</sup> and, for the first time, the National Development Plan published in 2003 has a specific chapter dedicated to environmental issues.

### 4.2 Institutional and Administrative Structure for EIA in Botswana

#### 4.2.1 Ministry of Environment, Wildlife and Tourism

The overall responsibility for the environment lies with the Ministry of Environment, Wildlife and Tourism (MEWT)<sup>3</sup>. The following statutory authorities are also supervised by the ministry and other organisations with portfolio responsibilities related to it (Figure 4.1):

- Department of Environmental Affairs
- Department of Waste Management and Pollution Control

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<sup>1</sup> Presidential Task Group 1997

<sup>2</sup> National Conservation Strategy Co-ordinating Agency and Ministry of Finance and Development Planning, 2001: Environmental Keynote Paper, Discussion Draft for Seminar 3, Gaborone.

<sup>3</sup> Formerly the Ministry of Environment, Wildlife and Tourism

- Department of Forestry and Range Resources
- Department of Wildlife and National Parks
- Department of Tourism and the Tourism Board
- Department of Meteorology

#### 4.2.2 Department of Environmental Affairs

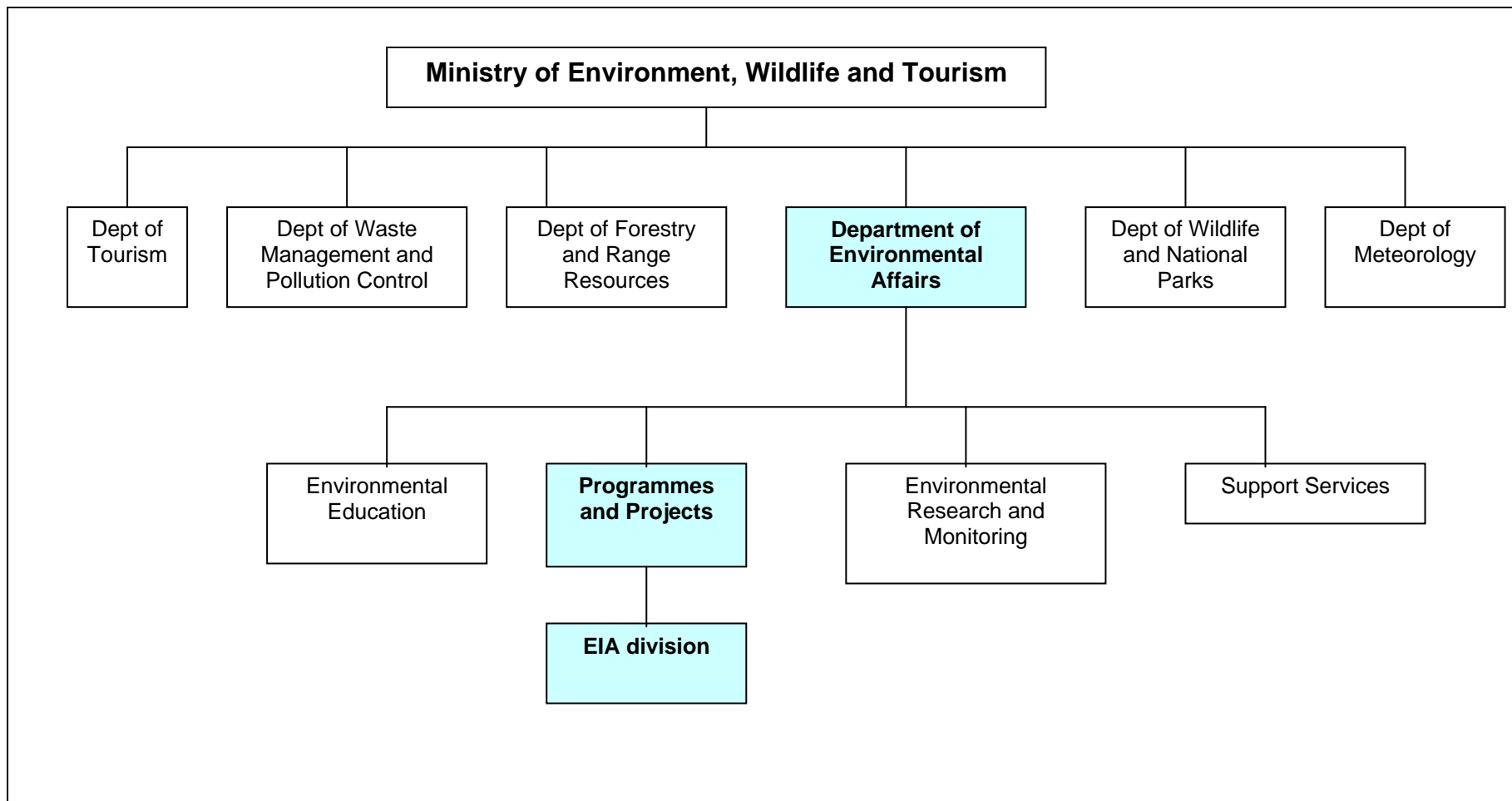
The EIA Act of 2005 defines the Department of Environment and Conservation as the Competent Authority that is responsible for administering and controlling EIA activities in Botswana, however, this department has been renamed as the **Department of Environmental Affairs** (DEA) and the functions previously assigned to the National Conservation Strategy Agency (NCSA) relating to EIA in the country have been assimilated into the DEA. The overall objective of the Department of Environment is to foster the pursuit of sustainable development by coordinating the protection of the country's environment and the conservation of its natural resources.

More specifically the Department of Environmental Affairs aims at:

- a) Coordinating the formulation, and implementation of environment friendly policies, legislation, programmes and projects to ensure that both the short, medium and long-term impacts upon the natural resources and environmental capital of the country are at least neutral and at best highly beneficial.
- b) Ensuring that due regard is given to environmental considerations in the National Development Planning process.
- c) Providing its clients and stakeholders with sound, objective and impartial advice, guidance and coordination, covering all activities involved in the planning, design, use and management of natural resources and environmental services.
- d) Acting as the Secretariat to the Environmental Affairs Council and providing all appropriate services required by the Council to enable it to function both effectively and efficiently.
- e) Installing effective strategies for promotion of the National Policy on Natural Resources Conservation and Development (the National Conservation Strategy) and the National Conservation Strategy Action Plan throughout Botswana and for publishing its achievements with a view to changing public attitudes and perceptions towards natural resource conservation for development.
- f) Ensuring that the country's environment and natural resources are managed according to nationally and internationally acceptable scientific principles.

- g) Coordinating Environmental Research and Development efforts between all interested parties and the initiation of new research and demonstration projects where gaps exist.

**FIGURE 4.1: ORGANISATIONAL STRUCTURE OF THE MINISTRY OF ENVIRONMENT, WILDLIFE AND TOURISM**



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- h) Initiating and coordinating the drafting of a Research Strategy for the Department and promoting the development of a unified and consolidated Environmental Research Strategy for the country.
  - i) Introducing and promoting the use of modern and appropriate technology to improve information management and establish a national environmental data storage and retrieval system.
  - j) Preparing and updating the State of the Environment Review on a regular basis.
  - k) Promoting, institutionalizing and coordinating an Environmental Education programme at all levels of Botswana society.
  - l) Promoting Environmental Education through public awareness programmes and other relevant means and thereby helping Botswana become an environment friendly and conscious nation.
  - m) Developing effective public relations services regarding Botswana's environmental and natural resources policies, legislation, programmes and projects.
  - n) Coordinating the fulfilment of Botswana's obligations under international Environmental Conventions, Agreements and Protocols including acting as the national focal point.
  - o) Ensuring that the Department is efficiently managed and provided with the necessary resources and further ensuring that all resources allocated to the Department are effectively and optimally utilized.<sup>4</sup>

To perform its duties, the DEA has three professional divisions, namely Environmental Education (EE), Environmental Research and Monitoring (ERM), and Programmes and Projects (PP). An additional division is the Administrative Support Services division (see Figure 4.1). All activities relating to environmental impact assessment fall under the Programmes and Projects Division and the DEA's roles and responsibilities in this regard are as follows:

- a) Require and ensure that policies, programmes and development projects be accompanied by professionally prepared and approved environmental impact assessments.
- b) Examine the terms of reference and evaluate and endorse the Environmental Impact Assessments of development policies, programmes and projects.
- c) Implement the provisions of any appropriate environmental impact assessment legislation.
- d) Provide objective and impartial environmental assessment services in compliance with the requirements specified in the appropriate legislation.

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<sup>4</sup> Ministry of Lands, Housing and Environment. Department of Environment: Statement of Objectives and Functions (accessed from DEA website: [www.envirobotswana.gov](http://www.envirobotswana.gov))

- e) Prepare manuals and guidelines for the preparation of Environmental Impact Assessment (EIA) and assist in the development of sectoral EIA guidelines.
- f) Examine the terms of reference and evaluate environmental impact assessment reports of all development policies, programmes and projects.
- g) Monitor the environmental implications of national policies, programmes and projects and recommend mitigation measures.
- h) Undertake Environmental Audits in accordance with the appropriate legislation.
- i) Monitor the implementation of approved Environmental Impact Assessments.
- j) Provide professional advice to Central Government, Local Authorities and the public on the preparation of Environmental Impact Assessments.<sup>5</sup>

### 4.2.3 Inter-sectoral Co-operation

The natural resource base in Botswana, like everywhere else in the world, is an integrated functional system. Its utilisation, administration and management is however organised along separate but inter-related development and conservation processes, for administrative expediency. All ministries in central Government have portfolio responsibility for some aspect(s) of development. Some Ministries also have responsibility for certain aspects of conservation. A number of statutory and non-statutory Boards have also been established to administer, manage and control some aspects of natural resources, their products and services. Key Ministries include:

- Agriculture;
- Minerals, Energy and Water Resources;
- Trade and Industry;
- Works and Transport;
- Local Government;
- Lands and Housing.

An array of legislative provisions also exist to enable the various Ministries and departments to enforce conservation practices in their fields. For example, the Agricultural Resources Conservation Act gives the Agricultural Resources Board extensive powers over the protection of agricultural resources, including soils, water and plant life.

There are certain institutional shortcomings in the current arrangement, which include the following:

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<sup>5</sup> Op. Cit. Footnote 4.

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- Gaps in environmental policy formulation;
  - Inadequate integration of management;
  - Inadequate monitoring capability;
  - Inadequate co-ordination;
  - Lack of capacity to resolve differences;
  - Inadequate response capability.<sup>6</sup>

It has also been observed that the enforcement of the various legislative provisions has been inadequate. A number of reasons have been given and they include the following:

- a) the externality of the law;
- b) the poor and /or inadequate communication of the law;
- c) administrative and institutional irrationality and deficiency;
- d) dualistic assignments to enforcing agencies;
- e) reliance on criminal sanction as a primary sanction, instead of it being seen as a last resort;
- f) the inadequacy of licensing as an instrument of administrative control.
- g) non-availability of viable alternatives to prohibited activities; and
- h) the command and control posture of the law.

In the forgoing context, the National Conservation Strategy (NCS) was formulated and approved to streamline the administration of use and the conservation of natural resources.<sup>7</sup>

#### **4.2.4 Environmental Liaison Officers**

Environmental Liaison Officers (ELOs) have been designated within each of the sectoral ministries/departments and the local authorities. These are responsible for ensuring that their organisation comply with the National Policy on Natural Resource Conservation and Development and for liaising closely with DEA.

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<sup>6</sup> Larsson, J (1998). Review of the National Policy on Natural Resources Conservation and Development. Swedforest International AB January 1998.

<sup>7</sup> Op. Cit. Footnote 2.

## 4.3 Policy and Legal Framework for EIA in Botswana

### 4.3.1 National Policy on Natural Resource Conservation and Development, 1990

In 1983 the Government of Botswana accepted the need for the preparation of a National Conservation Strategy (NCS). This need emerged from close co-operation between the Government and UNEP in the preparation of the Clearing House Mission Report. That Report reflected the importance attached to identifying policies and other measures, which would ensure, whenever and wherever possible, the sustainability of all future development. There is clear evidence that many of these resources are under pressure. In some cases, this has given rise to concern about the ability of the resources to sustain the needs of future generations.<sup>8</sup> The impacts of these development pressures are manifest by:

- Pressure on water resources;
- Degradation of rangeland pasture resources;
- Depletion of wood resources;
- Exploitation of veld products;
- Pollution;
- Resource pressure due to growth in human population;
- Depletion and conservation of wildlife resources;
- The need to improve environmental awareness.

Thus, in order to achieve sustainable development as envisaged in the National Development Plan, the primary goals in formulating the Strategy were to develop policies and measures which:

- a) increase the effectiveness with which natural resources are used and managed, so that beneficial interactions are optimised and harmful environmental side-effects are minimized;
- b) integrate the work of the many sectoral Ministries and interest groups throughout Botswana, thereby improving the development of natural resources through conservation, *visa versa*.

A series of detailed Strategy goals has also been identified by Government. These specifically cover development goals such as:

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<sup>8</sup> Government of the Republic of Botswana, 1990. National Policy on Natural Resources Conservation and Development. Government Paper No 1 of 1990. Government Printer, Gaborone.

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- i. the development of new and better natural resources uses, which are sustainable;
  - ii. the optimization of the existing uses which are made of all natural resources;
  - iii. the development of multiple, rather than single purpose, natural resource uses;
  - iv. the diversification of the rural economy so as to generate new jobs;
  - v. the increased education of, and participation by, all members of society in improving the environment;
  - vi. the development of links with neighbouring countries in conserving resources;
  - vii. the establishment of a balance between population growth and the supply of natural resources.<sup>9</sup>

And conservation goals, namely:

- i. the conservation of all main ecosystems, wildlife and cultural resources;
- ii. the protection of endangered species;
- iii. the maintenance of stocks of renewable resources (e.g. veld products), whilst increasing their sustainable yields;
- iv. the control of the depletion of exhaustible resources (e.g. minerals) at optimal rates;
- v. the distribution of incomes and rewards more equitably, in the interests of conserving natural resources;
- vi. the cost-effective restoration of degraded renewable natural resources, including improved capacity for regeneration of the veld;
- vii. the prevention and control of pollution.<sup>10</sup>

Fulfilment of these detailed goals entails designing development so as to minimize environmental costs and to enhance the quality of the environment. It likewise requires that, when 'trade-offs' have to be made involving the use of natural resources, full account is taken of the environmental and social costs as well as the economic costs.<sup>11</sup> It was thus recognized at an early date that specific legislation was required to ensure that impacts would be systematically assessed and appropriate mitigation plans put into place for each development.

The draft Environmental management Bill will contain an updated version of the national Environmental Action Plan (NEAP). This Bill is an over-arching environmental management instrument which is currently being drafted and which is expected to be made available for public comment in late 2009.

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<sup>9</sup> [www.envirobotswana.gov.bw](http://www.envirobotswana.gov.bw)

<sup>10</sup> Op. Cit. Footnote 4.

<sup>11</sup> Op. Cit. Footnote 4.

### 4.3.2 Environmental Impact Assessment Act, No 6 of 2005

The Botswana EIA Act was passed in 2005, and an EIA is now mandatory for specified projects. This legislation strengthens the effect of EIAs in decision-making by providing for the assessment of policies, programmes and projects before their approval. The Act includes methods for assessing impacts and alternatives (Part II), the review and authorisation process (Parts III and IV) and requirements for monitoring for compliance with prescribed mitigation measures (Part V). The legislation also includes the right of appeal. An amendment to the EIA Act is in the process of being drafted and it is expected that the Amendment Bill will be approved by parliament before the end of 2009.

Botswana is one of the few countries in SADC to specify the need for Strategic Environmental Assessment (SEA) for certain policies, plans and programmes.<sup>12</sup> The list of those requiring an SEA will likely appear in the regulations.

The Act is also unique in the region in that it specifically addresses trans-boundary issues. Section 28 states that where a proposed activity is likely to have a significant adverse environmental impact in another country, the Ministers of Environment and Foreign Affairs must be informed, and the latter will send the ToR and the EIS to his/her counterpart in the potentially affected country.

### 4.3.3 Regulations

The legislation (through the regulations) will include a list of mandatory projects to be subjected to EIAs and a list of ecologically sensitive areas. The regulations accompanying the Act were drafted in late 2006 but were not published at the time of writing this document, because they are still going through the consultative process.

### 4.3.4 Permits and Licences

No person can undertake or implement a listed activity unless the environmental impact of the proposed activity is fully taken into account according to the provisions of the Act and an **Environmental Authorisation** has been issued in terms of section 14 of the Act (see Section 4.4.4 of this handbook).

The Environmental Authorisation will be valid for the period stipulated and must be renewed at the end of the validity period.<sup>13</sup> The competent authority i.e. the Department of Environmental Affairs (DEA) may revoke the Authorisation at any time subject to the requirements of section 17(2) of the EIA Act, if:

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<sup>12</sup> S. 6(1)(b) of the EIA Act.

<sup>13</sup> S. 16 of the EIA Act.

- There is an unanticipated, irreversible adverse environmental impact;
- A developer fails to comply with any of the terms and conditions listed on the Authorisation.

Written consent from DEA is required to transfer the Environmental Authorisation to another person or entity.<sup>14</sup>

Some activities will need a permit in addition to the Environmental Authorisation e.g. a quarry or mine will require a permit to operate from the Department of Mines.

### 4.3.5 Penalties

The EIA Act specifies clearly what is considered to be an offence and penalties are specified for each offence. These are summarised in Table 4.1 below.

**Table 4.1: Penalties and Offences in Terms of the EIA Act**

Offence	Penalty
s.4(2): Unauthorised activity i.e. without an Environmental Authorisation.	P100,000 or a maximum 2 years in prison or both
s.4(5): Failure to rehabilitate an area affected by an unauthorised development. s.18(2): Unauthorised transfer of an Environmental Authorisation to a third party. S26(3): Wilful obstruction or the provision of false information to a DEA official. s.29: Any other offence under the Act.	P15,000 or a maximum 2 years in prison or both. Continued offences: P2,000 per day of continued offence.
s.9(4): Failure to prepare and submit and EIS within the time period prescribed in the approved ToR.	P100,000 or a maximum of 5 years in prison or both.

### 4.3.6 Fees

At present, no fees are charged for making an application for an environmental authorisation or for the review of EIA reports, but provision has been made for such fees in the draft EIA Regulations.

### 4.3.7 Guidelines

The EIA Act makes provision for regulations to be made regarding guidelines for various stages of the EIA process, the content of the EIA report, the review process etc. EIA Guidelines are currently being developed.

<sup>14</sup> S 18 of the EIA Act.

In spite of this, the Department of Water Affairs, which has been at the forefront of EIA application in Botswana, has established procedures developed through practice in preparing EIAs. The National Water Master Plan has also identified topics that should be included in environmental assessments of water development projects.<sup>15</sup> These are hydrology, plant ecology, faunal studies, archaeology, medico-ecological aspects, sociological aspects, changes in land use, and tourism and recreation. Similarly, the Department of Roads, in conjunction with the DEA, has prepared guidelines for undertaking EIAs for road projects.

#### 4.3.8 Environmental Standards

The Keynote Paper prepared for the National Development Plan 9 identified the urgent need for Botswana to develop environmental quality and emission standards. This was set as a task under the Ministry of Health in the NDP9.<sup>16</sup> Although, non-numerical air quality regulations are found in the Atmospheric Pollution (Prevention) Act of 1998, it is expected that WHO standards for air quality will be used as a reference until local standards are adopted. At present, Botswana also has no numerical noise standards nor waste disposal standards. Again, it is expected that WHO standards will be used as a reference until local standards are adopted – expected to be included in the NDP10 process. Non-numerical waste disposal regulations are found in the Waste Management Act of 1998 and in the Guidelines for Disposal of Waste by Landfill.<sup>17</sup>

Botswana's water quality standards are as summarized in Table 4.2, below.

**Table 4.2: Water Quality Standards in Botswana**

Physical And Organoleptic Requirements (note 1)		
Determinants	Units	Class III- Max allowable
Colour	TCU	50
Conductivity at 25°C	mS/m	310
Dissolved solids	mg/l	2000
Odour		Not objectionable
pH value at 25°C	Units	5.0-10.0
Taste		Not objectionable
Turbidity	TDU	10

Recommended Effluent Discharge Standards for Rivers in Botswana (note 2)		
Parameter	Maximum Allowable Discharge Into:	
	Perennial Stream	Ephemeral Streams
Temperature	35°C	35°C
pH	6.5-9.0 units	5.5-9.0 units
Dissolved oxygen	75	75
BOD	20	30

<sup>15</sup> Government of the Republic of Botswana, 1992. National Water Master Plan. Government Printer, Gaborone.

<sup>16</sup> Jansen, R and JW Arntzen (Eds) 2002. Environmental Keynote Paper for National Development Plan IX, National Conservation Strategy Agency, Government of Botswana, Gaborone.

<sup>17</sup> Southern African Power Pool, 2006. EIA Guidelines for Hydropower Development Projects in SADC. Unpublished Report.

Recommended Effluent Discharge Standards for Rivers in Botswana (note 2)		
Parameter	Maximum Allowable Discharge Into:	
	Perennial Stream	Ephemeral Streams
COD	30	75
Ammonia	1.0	10.0
Nitrate	2.0	-
Total phosphorous	1.05	-
Colour	30	50
Total coliform	5000	20000
Faecal coliform	100	500
Arsenic	0.1	0.5
Boron	0.5	1.0
Zinc	5.0	5.0
Copper	1.0	1.0
Phenols	0.005	0.01
Lead	0.05	0.05
Cyanide	0.1	0.1
Chromium	0.05	0.5
Cadmium	0.005	0.05
Mercury	0.001	0.02
Selenium	0.01	0.05
Iron	1.0	1.0
Manganese	0.1	0.5
Sodium	400	600
Sulphate	400	600
Chloride	600	1000
Fluoride	1.5	2.5
TDS	1000	2000
Oil and scum	0	0
Chemical Requirements: Inorganic Macro-Determinants (note 3)		
N- Ammonia	2.0	
Ca- Calcium	200	
Cl- Chloride	600	
Cl residual chlorine	1.0	
F- Fluoride	1.5	
Ca CO <sub>3</sub> - hardness	500	
Mg- Magnesium	100	
NO <sub>3</sub> - Nitrate	45	
NO <sub>2</sub> - Nitrite	3.0	
K- Potassium	100	
Na-Sodium	400	
SO <sub>4</sub> - Sulphate	400	
Zn-Zinc	10.0	
Chemical Requirements: Inorganic Micro Determinants (note 3)		
Al- Aluminium	200	
Sb- Antimony	5	
As- Arsenic	10	
Cd- Cadmium	3	
Cr- Chromium	50	
Co- Cobalt	1000	
Cu- Copper	1000	
CN-free cyanide	70	
CN- recoverable cyanide	70	
Fe- Iron	2000	

Recommended Effluent Discharge Standards for Rivers in Botswana (note 2)				
Parameter	Maximum Allowable Discharge Into:			
	Perennial Stream		Ephemeral Streams	
Pb- Lead	10			
Mn- Manganese	500			
Hg- Mercury	1			
Ni- Nickel	20			
Se- Selenium	10			
Chemical Requirements: Organic Determinants (note 4)				
Total organic carbon	8			
Total trihalomethanes	1000			
Phenols	10			
Chloroform	30			
Total pesticides	5			
Pesticides	1			
Poly-aromatic hydrocarbons	100			
Toluene	700			
Xylene	500			
Ethyl benzene	300			
Microbiological Requirements (note 5)				
Determinants	Units	Allowable Compliance Contribution		
		95% min.	45% max	15 max.
Upper Limits				
Total coliform	Count/100ml	Not detected	10	100
Faecal coliform	Count/100ml	Not detected	1	10
Faecal streptococci	Count/100ml	Not detected	10	100

Note 1- If any coliform bacteria are found in a sample, take a second sample immediately after the tests on the first sample have been completed. This must be free from coliform bacteria; and

Note 2- Not more than 5% of the total number of water samples (from any one reticulation system) tested per year may contain coliform bacteria.

The allowable compliance contribution shall be at least 95% to the limits indicated in column 3, with a maximum of 4% and 1% respectively, to the limits indicated in columns 4 and 5. The objective of disinfection should, nevertheless, be to attain 100% compliance to the limits indicated in column 3.

- (1) Botswana Bureau of Standards. Water Quality - Specification. BOS 32:2000. All measurements as mg/L unless otherwise specified
- (2) Department of Water Affairs: Water Reuse and Discharge Guidelines: Guideline no.2. All measurements as mg/L unless otherwise specified
- (3) (4) (5) Botswana Bureau of Standards. Water Quality - Specification. BOS 32:2000. All measurements as mg/L unless otherwise specified

#### 4.3.9 Certification of EIA Consultants

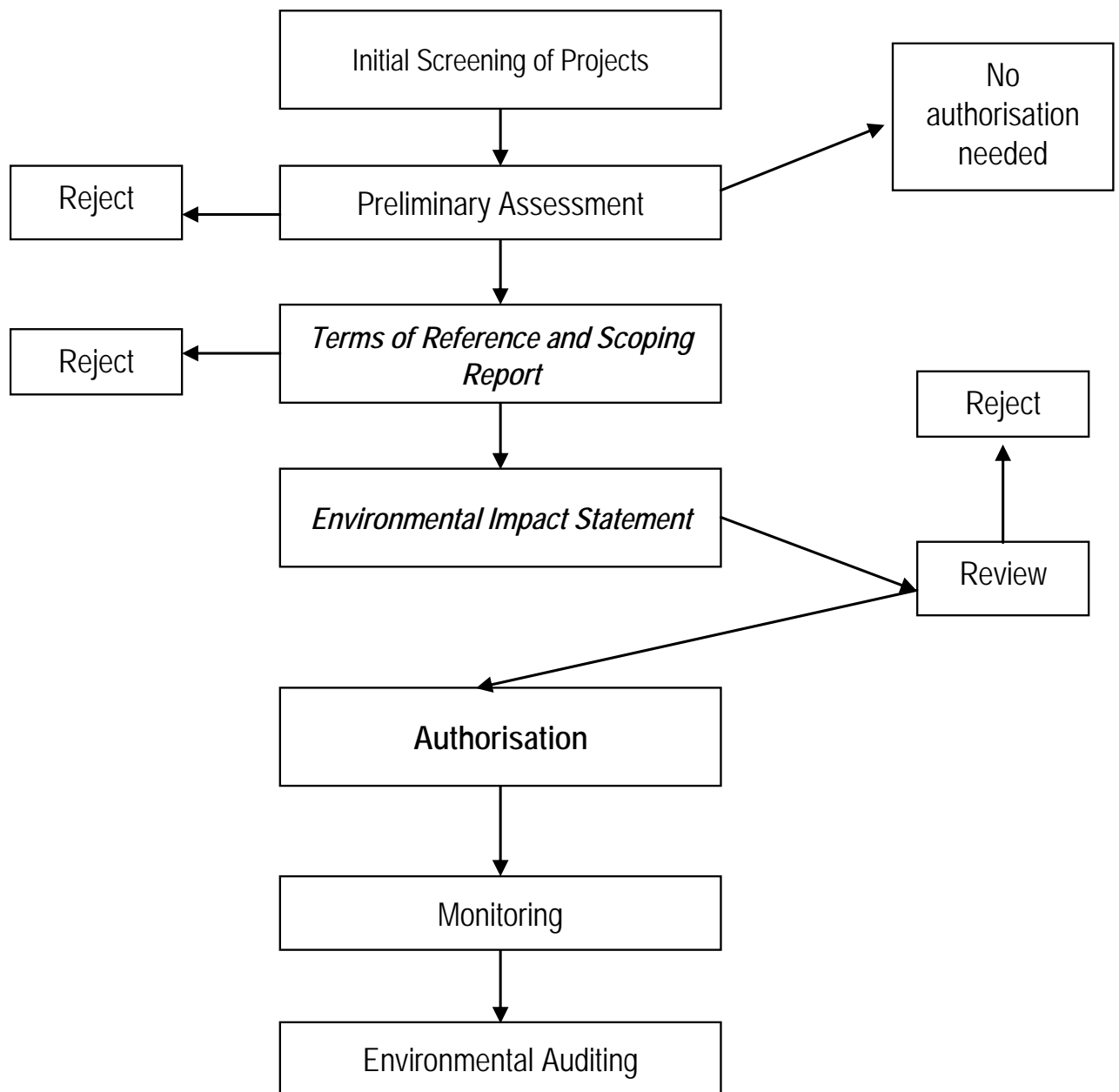
As it stands at present, Section 11 of the EIA Act requires consultants to be registered. Anyone applying to be registered has to satisfy the Minister that:

- They have a degree in a prescribed discipline (not yet specified);
- They have at least 2 years experience in undertaking EIAs as part of a team; and
- They have knowledge of the basic processes of the EIA procedure and of international guidelines on the preparation of ToRs and environmental impact statements.

However, this is about to change in the latter half of 2009 with the expected promulgation of the EIA Amendment Bill. Legislation regarding the establishment of the Botswana Environmental Assessment Practitioners Association (BEAPA) will be included in the Amendment Act. All environmental assessment practitioners (EAPs), including the competent authorities, will be required to register in terms of BEAPA and will need to be certified to practice as an EAP. The proposed Amendment Bill will also prescribe a range of professional fees that can be charged by each category of certified EAP.

#### 4.4 EIA Procedural Framework in Botswana

The EIA process is set out in the EIA Act and shown schematically in Figure 4.2. The following sub-sections provide a summary of each step in the process.



**FIGURE 4.2: EIA PROCESS IN BOTSWANA**

#### 4.4.1 Screening

In Botswana, the term 'screening' means an initial stage in the EIA process where the Minister determines whether an activity should be subjected to an EIA or not.

Under the Act, Category A projects require a full EIA, Category B projects require a partial EIA, and projects falling in Category C do not require any EIA. The Act does not specify what activities fall into which category, leaving this to be clarified in the regulations, which have yet to be published.

#### 4.4.2 Preliminary Environmental Impact Assessment

Every application for an Environmental Authorisation for a **project** must be accompanied by a Preliminary Environmental Impact Assessment (PEIA), and the formulation of **policies and programmes** must be accompanied by a Strategic Environmental Assessment (SEA).

The PEIA or SEA must include the views and opinions of interested and affected parties, and to this end, the Act requires the applicant (proponent) to:

- Publicise the proposed activity, its effects and benefits in the mass media for a period of at least 21 days; and
- Hold meetings with the affected people or communities.<sup>18</sup>

If the DEA is satisfied that the application contains all the relevant information and that the proposed project or policy will not have an adverse impact on the environment, they will authorise the implementation of the activity. However the DEA may request the applicant to submit more information if required to make an informed decision.

If the proposed project is likely to have adverse impacts on the environment, the DEA will decide that an EIA is required and will direct the applicant to prepare Terms of Reference (ToR) for the EIA in a form yet to be prescribed. In considering the ToR, the DEA may carry out its own investigations and/or request more detail in the ToR before it can approve them.

#### 4.4.3 Environmental Impact Assessment and Statement

Section 9 of the Act states that the "EIA [report] shall identify and evaluate the environmental impact of an activity with particular reference to the:

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<sup>18</sup> S.7 of the EIA Act.

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- Health, safety or quality of life of people;
  - Archaeological, aesthetic, cultural or sanitary conditions of the environment; and
  - Configuration, quality and diversity of natural resources.”

Section 10 of the Act specifies the following format for an EIA report:

- Name of applicant;
- Non-technical summary;
- Description of proposed activity and its purpose;
- An outline of alternatives to the proposed activity including the non-action alternative;
- Description and assessment of likely impacts (including trans-boundary) on the local environment, including socio-economic consequences;
- The assessment must consider the time period for which impacts are predicted, the extent and distribution of predicted impacts, the mitigation measures proposed to minimise or eliminate the predicted impacts and a description of the resultant residual impacts;
- An assessment of the lost opportunity costs and land uses as a result of the proposed activity;
- An Environmental Management Plan (EMP) including the proposed monitoring and evaluation programme.

Section 12 of the EIA Act requires the DEA to place a notification in the Government Gazette and specified newspapers for a period of **4 weeks** inviting comments and objections from the interested and affected parties (I&APs). The notice must contain at least the following information:

- Nature and magnitude of the proposed activity;
- Location of the activity;
- Anticipated environmental impact of the proposed activity; and
- The proposed mitigation measures to minimise the negative impacts.

The comments or objections raised by the public during this period must be considered by the DEA in their decision making process. However, if the project is considered to be contentious, the DEA may hold a public hearing.<sup>19</sup> The procedure for holding a public hearing has not yet been prescribed.

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<sup>19</sup> S.13 of the EIA Act.

An important component of the Act is that any Terms of Reference, statement, report, decision or any other document produced under this Act shall be accessible to the public.<sup>20</sup>

#### 4.4.4 Review of EIA Statements

Section 12 of the Act gives the Department of Environment and Conservation **60 days** in which to review the Environmental Impact Statement (EIS). After their review, the DEA may invite public comment and once they are satisfied that the report is adequate and that the proposed mitigation measures will be “effective and sufficient”, they may:

- Grant Environmental Authorisation with conditions; or
- Reject the EIS in writing, giving reasons for the decision.<sup>21</sup>

Botswana has not developed guidelines for a formal review process, but section 19 requires the competent authority (DEA) to take into consideration the following:

- The contents of the ToR;
- The EIS;
- The recommendations of other government departments and local authorities;
- The comments and objections made by the I&APs.

A person aggrieved by the decision may appeal to the High Court within 30 days of receiving the decision.<sup>22</sup>

#### 4.4.5 Environmental monitoring and assurance

Section 20 of the EIA Act requires the authorities to monitor for compliance with the agreed mitigation measures, whilst section 21 makes provision for Environmental Audits. Also, the DEA is authorized to demand reports from proponents that show their progress with regards to the implementation of environmental safeguards.

## 4.5 Other Relevant Environmental Legislation in Botswana

Existing environmental legislation is found within a wide range of acts (Table 4.3) and subsidiary legislation. Some clauses in the Mines, Quarries, Works and Machinery Act (Chapter 44:02) of

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<sup>20</sup> S.23 of the EIA Act.

<sup>21</sup> S.14 of the EIA Act.

<sup>22</sup> S.15 of the EIA Act.

1971 and in the Monuments and Relics Act (No. 12 of 2001) suggest that EIAs and/or archaeological assessments should be done, but this is not mandatory and the process for doing so is not prescribed. Previous reviews of the laws have identified overlaps which need to be addressed through the introduction of framework legislation. A key feature of the existing environmental laws is that there is no provision for an individual to seek remedy for environmental damage unless they are personally affected.<sup>23</sup>

**Table 4.3: Other Potentially Applicable Sectoral Requirements**

Sector	Primary Agency	Title and Date of Document	Purpose
Water resources	Ministry of Minerals, Energy and Water Resources (MMEWR)	Botswana National Water Master Plan of 1992 (currently being revised)	Provides baseline for water resources planning and management
		Water Act of 1968 (Act to be revised)	Defines water rights, ownership and use of public water. It prohibits pollution, fouling, poisoning of water and prohibits the interference with or flow of a public water course.
		Waterworks Act of 1962	Provides for the prevention of the misuse and pollution of water through the enforcement of penalties.
		Aquatic Weeds (Control) Act of 1971	Allows for the control of aquatic weeds through the control of boat movements
Pollution and waste	MMEWR	Atmospheric Pollution (Prevention) Act of 1971	To control air pollution from primary sources
	Ministry of Local Government	Waste Management Act, No. 12 of 1998	Provides for the management of controlled and hazardous wastes. Requires the provision of waste management plans, identification of waste management sites and the control of groundwater pollution.  Responsible for planning, facilitation and implementation of the waste management strategy (1998), and the implementation of the Basel Convention
Conservation and forestry	Ministry of Environment, Wildlife and Tourism (MEWT)	Forest Act, of 1976	To provide for conservation of forestry reserves
		Wildlife Conservation and National Parks Act (1992, 2002)	Provide for wildlife management and conservation through gazettement of national parks, game reserves, wildlife management areas in which wildlife conservation and use is the primary land use
		Wildlife Conservation and Game Reserves regulations of 2001.	

<sup>23</sup> Mpotokwane, M and K Keatimilwe, 2003. Country Chapter on Botswana in "EIA in Southern Africa". Southern African Institute for Environmental Assessment, Windhoek, pp 45-61.

Sector	Primary Agency	Title and Date of Document	Purpose
	Ministry of Agriculture	Community Based Natural Resources Management Policy (forthcoming)	
Fisheries	Ministry of Agriculture	Fish Protection Act, 1975	Provides for the regulation, control, protection and improvement of fish and fishing
Tourism	Ministry of Trade and Industry	Tourism Act of 1992 Tourism Regulations of 1996 Botswana Tourism Board Act 2004 National Ecotourism Strategy (forthcoming)	Provides for the development of the tourism industry in Botswana
Health	Ministry of Health	Public Health Act of 1981	Compulsory notification of certain diseases, prevent introduction of diseases into the country, advertise and publicise venereal diseases, regulate sanitation and housing, protection of food stuffs and water supplies, regulate use of cemeteries, and general provision of public health (Chapter 63:01)
Planning and Zoning	Ministry of Lands and Housing Dept of Town and Regional Planning	Town and Country Planning Act of 1980  Tribal Land Act of 1970 and the Tribal Land (Amendment) Act of 1993	Provides for orderly development of rural and urban land and gives permission for development (Chapter 32:09)  Allows for the determination of land use zones. Land Boards may determine management plans for the use and development of these zones
Mining and Mineral Resources	MMEWR	Mines, Quarries, Works and Machinery Act of 1978  Mines and Minerals Act of 1999 Energy Policy and Master Plan Mining Policy	Safety, health and welfare of persons engaged in prospecting, mining, quarrying operations and provision for inspection of regulations of mines (Chapter 44:02). Includes sections on slimes dams, fuel and oil spills and effluent water  To make provision for the exploration for and development of mineral resources
Land	Ministry of Lands and Housing	State Land Act, of 1966 and Tribal Land Act of 1970, revised in 1993  Land Control Act of 1975	To provide for settlement, land allocation, land management and land use.  Control of transactions in agricultural land (Chapter 32:11)
Agriculture	Ministry of Agriculture	Agricultural Resources	To promote agricultural development

Sector	Primary Agency	Title and Date of Document	Purpose
		<p>Conservation Act of 1974</p> <p>Noxious Weeds Act of 1916</p> <p>Plant Diseases and Pests Act of 1959</p> <p>Fencing Act of 1962</p> <p>Diseases of Animals Act of 1977</p> <p>Agrochemicals Act, No. 18 of 1999 and Regulations of 2003</p>	<p>in Botswana and the conservation of Botswana's agricultural resources</p> <p>Eradication and destruction of noxious weeds (Chapter 35:04)</p> <p>Prevention of introduction and spread of plant disease and plant pests (Chapter 35:02)</p> <p>Provision for construction of fences dividing farms and for apportionment of the cost (Chapter 33:03)</p> <p>Prevention and control of animal diseases, regulate movement of animals into and within the country and provide for quarantine (Chapter 37:01)</p> <p>Registration and licensing of agrochemicals, to control their importation, manufacture, distribution, use and disposal and to limit pollution to the environment or harm to human, plant or animals</p>
Archaeological, Historical and Cultural	Botswana National Museum	National Monuments and Relics Act No. 12 of 2001	Protection, preservation and declaration of artefacts, monuments and heritage areas. Defines archaeological impact assessment and environmental impact assessment (EIA)

## ACRONYMS

<b>BEAPA</b>	Botswana Environmental Assessment Practitioners Association
<b>DEA</b>	Department of Environmental Affairs
<b>EAP</b>	Environmental Assessment Practitioner
<b>EIA</b>	Environmental Impact Assessment
<b>EIS</b>	Environmental Impact Statement or Study
<b>ELO</b>	Environmental Liaison Officer
<b>EMP</b>	Environmental Management Plan
<b>I&amp;APs</b>	Interested and Affected Parties
<b>MEWT</b>	Ministry of Environment, Wildlife and Tourism
<b>MFDP</b>	Ministry of Finance and Development Planning
<b>MMEWR</b>	Ministry of Minerals, Energy and Water Resources
<b>NCS</b>	National Conservation Strategy
<b>NCSA</b>	National Conservation Strategy Agency
<b>NDP</b>	National Development Plans
<b>NEAP</b>	National Environmental Action Plan
<b>NGO</b>	Non-Government Organisation
<b>PEIA</b>	Preliminary Environmental Impact Assessment
<b>SADC</b>	Southern African Development Community
<b>SEA</b>	Strategic Environmental Assessment
<b>TOR</b>	Terms of Reference
<b>UNEP</b>	United Nations Environment Programme
<b>WHO</b>	World Health Organisation

## USEFUL CONTACTS

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