

FINAL REPORT: CONSULTING ASSIGNMENT FOR THE DEVELOPMENT OF A CASE STUDY ON THE LEGAL AND ADMINISTRATIVE FRAMEWORK FOR THE MANAGEMENT OF INDUSTRIAL CHEMICALS IN BOTSWANA

EXECUTIVE SUMMARY

The Ministry of Health has commissioned Rantao Kewagamang Attorneys to conduct a consultancy for the development of a case study on the legal and administrative framework for the management of industrial chemicals in Botswana. This report presents the findings and recommendations on the consultancy.

1. BACKGROUND

Botswana has ratified a number of key conventions that relate to the production, use and disposal of chemicals that affect the populace, physical and trade environment in various ways. The country has also developed significantly in recent years with a higher GDP than most of the Sub-Saharan African countries. This development has brought economic activity that utilises chemicals as essential inputs and also as an output. This has necessitated the development of legislature to ensure safe use of chemicals. The increase in economic activity and the use of chemicals has also necessitated a review of legislative and administrative structures in place to ensure that appropriate response mechanisms are put in place to deal with fresh challenges brought about by the increase in the prevalence of industrial chemicals. Water, electricity, agriculture, mining and beef sectors form the back-bone of Botswana's economy. These key economic activities involve the use of chemicals, some of which have potentially long term harmful effects if left unchecked. The consultancy is expected to provide guidance on the development of administrative structures and laws geared towards effective administration of industrial chemicals and compliance with the country's obligation to the international community. It will highlight progress and achievements, implementation challenges and constraints in chemicals management, to promote a sound and effective management of chemicals for sustainable industrial development. Sound trade and environmental policies and laws would serve to expand trade and attract international markets for the country.

2. PROJECT OBJECTIVES

To address the challenges described briefly above, the consultancy has two key objectives.

1. A holistic and all encompassing review of the legislative, regulatory, and related structures relating to the management, use, trade and disposal of chemicals
2. To map out an implementation plan for the study.

The study is based on the Basel Convention on the Control of Trans-boundary movement of Hazardous wastes and their disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for certain Hazardous Chemicals and Pesticides in International Trade, and the Stockholm Convention on Persistent Organic Pollutants. The specific Terms of Reference (TORs) are detailed in the main report.

3. METHODOLOGY

The study adopted an integrated approach to the assignment and reviewed the extent of compliance and relevance of the domestic laws to Botswana's obligations with respect to all the MEAs. This was done to address the lack of an integrated legal and administrative framework in the general management of chemicals in Botswana which was identified as the main challenge in the implementation of the MEAs. This was done through the holding of consultative meetings with the Ministry of Health and review of relevant international, regional and domestic literature on the assignment.

A comparative analysis of five African countries was also done to draw parallels and lessons from Botswana's neighbours and trade partners. Ghana, Ethiopia, Lesotho, Liberia, which are party to at least one of the MEAs, are potential entry and export points for chemicals. Trade liberalization and the creation of free trade zones is an ongoing initiative across Africa. A harmonization of trade and environmental policies and laws across the continent is essential to this process. In this context, it is important to share lessons and benchmark with other countries to deal with risks posed by common developmental problems for Africa's developing economies.

4. SUMMARY OF THE MEAs AND KEY DOMESTIC LEGISLATION

The content, scope and object of the MEAs was reviewed and analysed. Key domestic legislation dealing with the general management of chemicals was also identified, analysed and compared, to assess its level of compliance to the provision of the MEAs. Some positive strides in the domestication of the MEAs to deal with general chemicals management were elicited through the study. Gaps in implementation were identified and relevant recommendation made to address such gaps. Basic concepts and principles relevant to environmental laws were also identified and enumerated.

The Agro-Chemicals Act, Atmospheric Pollution (Prevention) Act , Factories Act , Public Health Act , Mines, Quarries, Works and Machineries Act, Road Traffic Act, Environmental Impact Assessment Act, Water Act and the Waste Management Act are the key pieces of legislation reviewed and analysed. The Constitution was also assessed as the law from which all other legislation draws authority.

The administrative make up of the country dedicated to chemicals management was also scrutinised to identify key players in the chain of chemicals management and disposal. The role and efficacy of each administrative structure was assessed as well as areas of overlap.

5. CONCLUSIONS AND RECOMMENDATION

The review of the legal and administrative framework shows that whilst the country has partly incorporated the Basel Convention in the domestic law, a lot still needs to be done to domesticate the Rotterdam and Stockholm Conventions. The current legal environment is not sufficiently supportive of implementation objectives for all MEAs.

Challenges in the administrative framework mainly stem from lack of capacity and resources. Another challenge is also the fragmented approach to the management of the industrial chemicals which results in lack of effective management and coordination of activities geared

towards sound management of chemicals. Coordinated effort that fosters the involvement and cooperation of the public and private sectors, educational, technical and research facilities, are all imperative to the assessment and monitoring risks associated with chemicals. Prompt action is needed to address the sectoral approach to chemicals management, which continues. As recent as 2012, draft Regulations under the Environmental Impact Assessment were promulgated, promoting yet another mechanism for chemicals management, whilst this study was ongoing.

Legal and Administrative Study for the Management of Industrial Chemicals in Botswana

1. Introduction

The Ministry of Health engaged the consultants to review and develop the chemicals management legislation and regulations in Botswana. This report forms our findings and recommendations.

1.1 Project overview and context:

At over US\$7,000 per head in 2008, Botswana's Gross Domestic Product (GDP) is higher than the bulk of production, with the earlier averaging a contribution of 40.4%, and the latter 47.9% of GDP in the period between the years 2002-2008. Although highly dependent on Diamond revenue, the Botswana economy is slowly diversifying towards other industrial, agricultural and service activities. Mining, industry and agriculture all utilize chemicals as essential inputs and at various levels, as outputs as well. The usage well as the demand for chemicals has grown in parallel proportion to the socio-economic development and population growth. This has led, in recent years, to growing concern among the consuming public and the government of the potential harmful effects to Botswana of these chemicals. ¹Botswana, like other countries has attempted to develop technical, legal and administrative systems to ensure that economic productions, trade and consumption occur within safe environments. Local initiatives towards this purposes are also informed by Botswana's international relations, in particular, the country's participation in bilateral, regional and multilateral efforts aimed at ensuring the safe productions, use and trade in chemicals and other environmental issues.

2. Objective

The main objective of this study is to provide technical assistance (legal) to enable Botswana to domesticate and effectively implement its international obligations in the context of the management of chemicals.

2.1. Terms of Reference

The terms of reference for this study were as follows:

- *Undertake a desk study to review legislation, and regulation on general chemicals management, as well as occupational health and safety related infrastructure in the country.*
- *Elaboration of a step-by-step process for the implementation of the desk study is to be annexed to the report, to provide Botswana and other Parties, should they deem it appropriate or to the Rotterdam Convention with the opportunity to replicate the desk study in their countries in the future. A final report will be the primary deliverable with appendices.*

The relevant Multilateral Environmental Agreement (MEAs) for this desk study were:

- *The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal (the Basel Convention);*

¹. See. Executive Summary of Botswana's National Action Plan, Sub-regional consultation to identify elements of National Action Plan or strategies for the implementation of the Rotterdam Convention for Botswana, Lesotho and Malawi, Gaborone, 5-9 April 2010, Secretariat of the Rotterdam Convention.

- *The Rotterdam Convention on the Prior Informed consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention); and*
- *The Stockholm Convention on Persistent Pollutants (the Stockholm Convention).*

3. Methodology

The scope of this desk study was limited to those MEAs dealing with general management of chemicals, with a particular emphasis on the Rotterdam Convention. In this respect we adopted an integrated approach to designing the implementation of Botswana's obligations on general chemicals management. The consultants therefore tackled the Terms of Reference by concentrating not only on the Rotterdam Convention, but also on implementation obligations arising from the Stockholm and Basel Conventions. Currently Botswana does not have an integrated legal and administrative framework to deal with general chemicals management. This study is an opportunity for the country to make efficient gains by addressing the requirements of the Rotterdam, Stockholm and Basel Convention; because together, the three Conventions provide a more complete approach to chemicals management.

Kick-off Meetings: The consultants held number of meetings with the Ministry of Health officials to discuss the direction of the study as well as to get assistance with relevant documents and other pertinent information.

Literature Review: The consultants reviewing the actual texts of the three MEAs in order to obtain a clear understanding of the specific obligations to implement for Botswana. Further, utilizing key resource centres such as the website of the Secretariat of the Rotterdam Convention, the consultants identified and reviewed reports, reviews and academic articles related to the experiences of other countries in their attempts at the implementation of international chemicals management obligations. The purpose of this further literature review was to enable the consultants to gain insight on the best practices and guidelines on developing legislative and regulatory measures, establishing and empowering institutions and other framework for chemicals management.

Relevant country experiences

Under the literature review we also identified a sample of comparable countries to Botswana's development process in the context of chemicals management experiences. Our sample was limited to sub-Saharan African countries where information on one or more of the three MEAs was available. We then identified key lessons and challenges in this respect, regards being had to the fact that this study is also designed as a pilot to assist other sub-Saharan African countries to enhance their domestication of the Rotterdam Convention.

4. Scope of key MEAs

Below we provide a brief overview and context of the key MEAs that govern the management of chemicals at an international level, and which Botswana is committed to domesticate and implement.

Box Insert: 1 Basic Concepts and Principles relevant to Environmental Laws

Over the past 30 years, the international community has emphasised a number of themes, principles and concepts relevant to the development of policies and laws to protect human health and environment, and to address the inter-related needs of economic and social development. These reflect years of experience, trial and error, successes and mistakes (and negotiating dynamics). They are relevant to the area of chemicals management as well as to other areas of health and environmental policy. Relevant concepts and principles include, among others: notions of sustainable development; linkages between environmental protection, human health and poverty; public participation and

community right to know about the presence and emission of toxic chemicals; pollution prevention, common but differentiated responsibilities, science and precaution; special issues relevant to developing countries; issue of equity elevated risk for indigenous communities and other groups and sub-populations; and the use of a life-cycle approach to address environmental harms.

Source: Secretariat of the Rotterdam Convention (2004)

Our approach is critical to the question whether the review should recommend that Botswana adopts an integrated approach to chemicals management or treats the international instruments as requiring separate pieces of legislation. We show in *Table 1* below, the scope, complementarities and the divergences in the international instruments on the management of chemicals. We further analyse the laws of Botswana against these instruments to identify gaps in the implementation of these MEAs.

Table 1: Scope and Comparison of International Instruments on Chemicals Management

MEA	Scope	Key Elements	Key Procedure
Rotterdam Convention (RC) (2004)	Cover 2 types of chemicals -Banned or Severely Restricted Chemicals and -Severely Hazardous Pesticide Formulations	International Trade of Chemicals	Prior informed Consent (PIC). Has a chemical been banned or severely restricted by two or more Parties? Or is it causing problems as a severely hazardous pesticide formulation in a developing country?
Stockholm Convention (SC) (2004)	Covers Persistent Organic Pollutants (POPs)	Production and Use of POPs	Conditions for listing include: Level of persistence, bioaccumulation, potential adverse effects, and socio-economic effects.
Basel Convention (BC) (1992)	Covers hazardous wastes	Trans-boundary Movement of Waste	Prior Informed Consent.
Comparison	The RC applies to industrial chemicals and pesticides that have been banned or severely restricted at a national level, and certain severely hazardous pesticide formulations. It does not deal with unintended by-products. The SC focuses on specific obligations for intentionally produced pesticides and chemicals and the releases of unintentionally produced by-products. The BC coverage includes wastes containing or resulting from chemicals listed under Rotterdam and Stockholm conventions.	The SC deals mainly with the production and use of POPs, the RC with international trade in the chemicals, and BC, with both these classes of chemicals once they become wastes. The key point is to note the life-cycle approach. Starts off with production of the chemicals, their trade, use and they are broken down into waste. But both the RC and SC also address national production issues, the similarity is limited to the extent that the focus of the RC is on the Most Favoured Nation Principle in international trade. This principle requires government to treat domestic and foreign producers of goods or services alike and not to discriminate on the basis of nationality. AND Stock Convention encompasses on trade issues as well.	There are differences on the procedures for listing of chemicals between the RC and BC on the one hand, and the SC on the other hand. The first two use the PIC procedure which is not used under the SC.

Key: In the above table bracketed years denote year of entry into force

Table 2: Overview of Relevant Country Experiences with MEAs domestication

Country	Status of Domestication of MEAs
Ethiopia	Ratified Basel, Rotterdam and Stockholm Conventions in 2000 and 2002 respectively. However the country does not have a comprehensive legal structure for the domestication of all 3 MEAs. Different state institutions and departments manage the chemicals frameworks in a fragmented manner.
Ghana	Ratified the Rotterdam Convention in 2003. However the country has no comprehensive legislation covering the management of all chemicals. Key national challenges in this regard include: Low capacity of pesticide inspectors to identify and report poisoning accidents; Difficulty in collecting information on poisoning accidents due to literacy barriers in the user communities; Lack of experience in preparing and submitting proposals in support of hazardous pesticide formulation to the Rotterdam Secretariat.
Lesotho	Lesotho has no policy on the management of chemicals although it has some legal instruments which address environmental management in some manner. Many of these instruments are too general, weak and outdated. The instruments are of a sectoral nature as they were enacted to curb specific problems in a particular sector (e.g. the Labour Code of 1992 which focuses on the workplace environment.) Challenges include: inadequate manpower for chemicals management, lack of financial resources, and minimal criminal sanctions for breach of the relevant laws. As a result the country has difficulties in participating in the Rotterdam Convention activities such as the prior informed procedure, notification of final regulatory actions, information exchanges (e.g. export notifications).
Liberia	Liberia acceded to the Rotterdam Convention in 2004 established the Environmental Protection Agency in 2003. This agency is also responsible for chemicals management. There is one Designated National Authority (DNA) with respect to the convention. However key challenges include: Lack of comprehensive legal instruments to manage the three MEAs; Lack of adequate infrastructure, human resources and financial resources for the implementation of the Rotterdam Convention; and low public awareness on all aspects of chemicals handling and management at both the private and public sector levels.
Malawi	Malawi ratified the Rotterdam Convention in 2009. However the country does not have a comprehensive law that governs the entire chemicals management life-cycle. The administration of relevant regulations and laws is fragmented across different government departments. The country has the following difficulties in implementing the MEAs: Lack of technical, human and financial resources; Lack of specific legislation addressing the management of chemicals; absence of national data base on chemicals use and incidents.

Source: Consultants based on Rotterdam Secretariat (2009), Report on the Sub-regional Training & Awareness Workshop for Designated National Authorities, South Africa, November 2009.

5. Overview of the Administrative Frameworks for Chemicals Management in Botswana

Botswana has passed a number of sector specific laws and established administrative arrangements that cover some aspects of the 3 MEAs discussed under *Table 1* above.

Table 3 provides an overview of the administrative arrangements for chemicals management in Botswana in the context of the 3 MEAs. *Table 4* below provides a summary of legislation that has both direct and indirect application to the management of chemicals in Botswana.

Further below we provide an in-depth assessment of the actual legislation and procedures that have a direct as opposed to an indirect relevance to chemicals management.

Table 3. Institutional Arrangements Related to Industrial Chemicals Management in Botswana

Ministry	Role
Industry and Trade	<p>The Ministry is competent for matters pertaining to the manufacture of chemicals and chemical products in a more general sense. The Ministry:</p> <ul style="list-style-type: none"> • Assesses and issues manufacturing licences to prospective traders. • It is the custodian of the Trade Act and the Industrial Act which stipulate the trading licences that people who trade with chemicals must possess. • Also housed in this ministry is the Botswana Bureau of Standards (BOBS) which is a standards body mandated to formulate national standards. • Developed the Pre-packaged Goods for the Ultimate Consumer-BOS 9:2000, Safety Data Sheet for Chemical Products-BOS ISO 11014-1:1994 and Classification, Labeling and Packaging of Chemicals-BOS 66- 1:2003 standards that address issues of chemicals labelling, classification, packaging and Safety Data Sheet.
Labour and Home Affairs	<p>-Is responsible for ensuring that the provisions of the ILO Convention N.170 concerning safety in the use of chemicals at work are implemented².</p> <p>-Administers the Factories Act that holds employers accountable for the health and safety of their employees: - the Act provides that employees, who work in certain hazardous conditions, with proper personal protective equipment</p>
Ministry of Local Government	<p>-Through the local authorities regulates the sale of chemicals by screening applications and issuing trading licenses to prospective traders. This ministry plays an implementation role and enforces the various pieces of legislation that have been formulated by other ministries.</p>
Transport and Communications	<p>-The Ministry is competent for matters related to the transportation of chemicals and storage during the distribution phase.</p>
Finance and Development Planning	<p>-Through the Botswana Unified Revenue Services (BURS), the Ministry is generally, responsible for ensuring that chemicals do not enter the country contrary to this Ministry's and applicable regulations, tariffs and duties.</p>

Source: Modified from Ministry of Health (2012) Botswana Country Report, Workshop Presentation by O.Goitseman, Department of Public Health, Environment and Health Division

²The Ministry of Agriculture, under section 23 of the Agrochemicals, Act also has a role to play in requiring employers to ensure that workers are protected when handling such chemicals .

Table 4: Botswana Legislation – Scope, Summary of Gaps and Challenges

Legal Instrument	Scope	Relevance to MEAs	Responsible Institutions
Agro-Chemicals Act (2000)	The act provides for the Registration and licensing of agrochemicals, their importation, manufacture, distribution, use and disposal.	Although addressing some aspects of chemicals life-cycle management this Act has limited relevance to the key MEAs. By design the Act is meant to address “agrochemicals” (includes pesticides) it is thus concerned specifically and exclusively with chemicals used in the agricultural value chain (see section 2 thereof). The broad aspects of the MEAs such as the MFN principle, domestic production, export, and listing/notification are not addressed. Hence even in its specific context, the Act hardly deals with the key aspects of the MEAs, in particular, the Rotterdam Convention.	This Act is administered by the Ministry of Agriculture with the advice of a National Agrochemicals Committee made up of mainly heads of other relevant Government departments and one each from the farming and agrochemicals communities.
Atmospheric Pollution Prevention Act (1971)	Provides for the Prevention of the pollution of the atmosphere by the carrying out of industrial process.	Although dealing with the polluting aspects of industrial chemicals this Act is of Very limited relevance to the MEAs under this study. It dates back to the 1970s and does not address the key issues of the MEAs.	The Act is administered by the Ministry of Environment Affairs .
Factories Act (1979)	Makes provision for the Regulation of the conditions of employment in factories as regards the safety, health, and welfare of employees.	No relevance: has a particular to industrial chemicals, limited to workplace safety issues. Enacted way before the relevant MEAs were signed.	The Act is administered by the Ministry of Labour and Home Affairs
Public Health Act : 2013	Concerned in part Environmental health Protection under part x1, Sections 95-103.	None: This is a law designed to address harm to the environment from any source, and the control of environmental pollution. In these aspects, is relevant to the MEAs. It is relevant to the Rotterdam Conventions and the Basel Conventions.	The Act is under the custody of the Ministry of Health which also administers the Drugs and Related Substances Act. In collaboration with the Ministry of Agriculture it implements the provisions of the Rotterdam Convention on the Prior Informed Consent Procedure for certain Hazardous Chemicals and Pesticides in International Trade Conducts random inspections to screen banned and severely restricted chemicals.
Waste Management Act (1998)	The Act provision for the planning, facilitation and implementation of advanced systems for regulating the management of controlled waste in order to prevent harm to human, animal, and plant life.	This Act directly domesticates one of the key international industrial chemicals instruments, the Basel Convention. The Convention is fully integrated into the legislation as regulations attached to the main body of the law. In brief, Botswana, through this Act has partly aspect dealt with the waste aspect of chemicals management.	The Act is administered by Ministry of Environment Wildlife and Tourism which also facilitates the implementation of the Stockholm convention on Persistent Organic Pollutants (POPS), and the Montreal Protocol on Substances that Deplete the Ozone Layer as an administrative arrangement though in the absence of legislation for this facilitative role.

Table 4.1: Further key Botswana Legislation – Summary of Gaps

Act	Scope and Relevance to MEAs
<p>Environmental Impact Assessment Act (EIA) and The Public health Act</p>	<p>The EIA was passed in 2005 to: Provide for environmental impact assessment to be used to assess the potential effects of planned development activities; determine and provide mitigation measures for effects of such activities as may have a significant adverse impact on the environment; to put in place a monitoring process and evaluation of environmental impacts of implemented activities. However the main focus is on the impact on the environment of planned activities which also include the production, use and disposal of chemicals. The Act is weak on the institutional linkages with other key legislation summarised above.</p> <p>The Public health Act was passed in 2013. Amongst other things, it deals with environmental health protection. An Environmental Health Officer, who reports to the Minister perform functions relating to the environment under the Act. He is mandated to compile a report every year on environmental activities under the Act. The Director of Health Services is mandated to control environmental pollution through the dissemination of information and education, arrange and promote the undertaking of studies on the quality of air and water effluent as well as investigations into the level of concentration of matter polluting water and air. He is also mandated to remove all environmental hazards and pollutants to safe guard public health.</p> <p>This Act, though new, is weak on the institutional linkages with other key legislation summarised above. It creates a separate mechanism for management of chemicals and chemicals waste, in a generalised manner that is not specific to the requirements of the MEAs. It has no regulations and is not capable of effective implementation as certain Orders required to be published by the Minister are yet to be published.</p>
<p>Road Traffic Act (Cap 69:01)</p>	<p>This is an Act to provide for the registration and licensing of motor vehicles; for the issue of driving licences; for the creation of offences relating to the use of vehicles and for the regulation of traffic; and for matters incidental thereto. Apart from the provisions on the specification for licensing drivers of vehicles conveying hazardous goods there is no specific relevance of this Act to the MEAs. In this context "hazardous goods" means dangerous goods or substances which shall include but not be limited to packages, unit load, bulk containers, bulk transportation equipment, petroleum-based flammable liquids and other objects that are considered hazardous or dangerous in terms of the following Acts-</p> <ul style="list-style-type: none"> (a) Cap. 24:02 Explosives Act; (b) Cap. 40:04 Fire Services Act; (c) Cap. 66:01 Mines and Minerals Act; (d) Cap. 38:01 Wildlife Conservation and National Parks Act; (e) Cap. 65:03 Atmospheric Pollution (Prevention) Act; or (f) Cap. 24:01 Arms and Ammunition Act.” <p>This legislation is strictly irrelevant on its own, to the issue of chemicals management as specifications for such vehicles and drivers thereof are catered for under the relevant sector legislation such as section 12 (3) of the Waste Management Act.</p>

As shown above Botswana has made a number of efforts to implement international instruments in the field of chemicals management, the clearest example being the domestication of the Basel Convention. In fulfilment of its obligations under the Stockholm Convention Botswana completed a Preliminary Polychlorinated Biphenyls (PCB) Inventory Exercise in 2006.

Whilst not incorporated into domestic law the Rotterdam and Stockholm conventions are partially dealt with through the administrative arrangements described under *Table 2-3* above and other positive efforts which have been taken to implement these conventions. Of importance in this context are the efforts of the Ministry of Health in producing the *Chemical Substances and Products Bill (2004)*. This was a positive attempt at creating an integrated framework to chemicals management. In spite of this effort, the Bill did not become law. Our recommendations address this issue further below.

6. In-Depth Review of Botswana Legislation with respect to MEAs

As reflected under Tables 3-4, Botswana does not yet have an integrated institutional framework on chemicals management. Below, we give a more detailed review of the relevant legislation and regulation in the context of both their actual implementation. We start with the *Waste Management Act* and regulations as this is one example where Botswana has actually enacted national law to implement an international legal instrument governing the environment that is the Basel Convention.

6.1. *The Constitution of Botswana and Environmental Treaties*

Botswana has a written Constitution which is the supreme law of the land. All laws that are promulgated have to be in line with constitutional provisions. It is the yardstick against which all laws are bench-marked.

In so far as international treaties are concerned, Botswana is a “*dualist state*”. The position of the law in Botswana is that post ratification; the treaty has to be incorporated in national laws in order to have the force of law. There is no automatic application of treaties and conventions. In other words the Parliament has to incorporate such treaties into a bill which would then be approved (following the ordinary legislative procedures) into a law.

This position may be a limitation for the quick adoption of international treaties, and in this context, MEAs since a further legislative process complete with the parliamentary debates is necessary before such MEAs can be part of the laws of Botswana. This position is generally not a problem with respect to political and civil rights which are clearly provided for in the Constitution.

The Constitution of Botswana does not make provision for socio-economic rights, which would include the right to good health and a safe secure environment (see alternative scenario below where such a right is recognised). The right to a safe and good natural environment is not explicitly provided for under the Constitution of Botswana. This is not the only socio-economic right that is not so covered by the Constitution. Most states which make no such constitutional provisions normally cite cost issues as the rationale for not including socio-economic rights in their constitutions. In other words, guaranteeing the right to a safe and good natural environment may open up the state to unpredictable law suites where individuals may claim a breach of such rights. As a result our analysis concentrates on the legislation that Botswana has passed or intends to pass with respect to MEAs as part of its process of domesticating the MEAs in question.

Example of a Constitutionally Protected Environmental Right

“Environment

24. Everyone has the right -

(a) to an environment that is not harmful to their health or well-being; and

(b) to have the environment protected, for the benefit of present and future generations, through

reasonable legislative and other measures that -
 (i) prevent pollution and ecological degradation;
 (ii) promote conservation; and
 (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

Source: The Constitution of the Republic of South Africa, 1996.

The above example creates a clear right to a safe and healthy environment, breach of which may entitle an individual to seek redress in the judicial system. As we note above, no such right exists in Botswana. The absence of any constitutional protection for socio-economic rights is a gap in Botswana’s laws. Whilst it is ideal to recommend that the constitution should be amended to take into account the need to specifically create and protect such rights the consultants recommend this as a long term option because of the following reasons:

- Our brief is to make *practical recommendations* so that Botswana may domesticate the three conventions.
- By their very nature constitutional amendments are complex and they involve numerous procedures and consultations that lead to lengthy debates and eventual referendums. We note that in Botswana such amendments have been extremely rare. In this case we recommend that the process of domesticating MEAs should not be held hostage to the usual complexities of constitutional debates and changes.
- Our view is buttressed by the fact that the situation in Botswana (as the analysis below shows) is such that although not without its challenges, shows that the State has already started to implement some aspects of the three MEAs under this study. This is being done through the routine legislative and regulatory process whose shortcomings we identify and to which we suggest improvements which do not necessarily require any debates on the constitution.

Below we address these legislative and regulatory aspects of Botswana’s chemicals management framework.

6.2. *Management of Waste*

The only legislation that addresses one of the key aspects of chemicals management is the Waste Management Act, which deals only with the management of chemical waste, and domesticates the Basel Convention. The major difficulty in implementing the waste management legislation is that Botswana currently does not have hazardous waste disposal facilities. All the landfills currently available are for general waste (Ministry of Health, 2012). This lack of capacity is of concern given that under article 4(2)(b) of the Basel Convention Botswana is obliged to take appropriate measures to:

“Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes that shall be located to the extent possible, within it, whatever the place of their disposal.”

This non-compliance with the Basel Convention is largely a question of infrastructural incapacity. However there are other critical areas where the Waste Management Act is inadequate with respect to Botswana’s obligations under the convention. These are summarised under *Table 5* below, and a detailed review is made further below.

Table 5: The Basel Convention and Gaps in the Botswana Waste Management Act

Basel Obligation	Gap
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Illegal traffic in hazardous wastes or other wastes should be made a criminal offence (see art.4(3))	Criminal offence not provided for.
Hazardous waste subject to transboundary movement should be packaged, labelled, and transported in conformity with international rules. See art 4(7)(b).	Requirement not provided for.
Transboundary hazardous waste to be accompanied by a movement document. (see art.4(7)(c))	Requirement not provided for.

A further gap in the Waste Management Act is with respect to how the law deals with illegal traffic in waste. This gap is elaborated in the box insert below.

Box Insert: 2. *Illegal traffic in waste and the Waste Management Act*

The main objective of the Basel Convention is the control of transboundary movement of hazardous and other wastes. The convention requires State Parties to take responsibility to prevent harm to human, animal and plant environments by prescribing regulatory measures. It is accepted that even where regulatory measures are put in place some individuals or institutions will seek to circumvent them. It can be cheaper for such individuals to simply dump hazardous waste across their own borders without going through the necessary regulatory processes. The result can create environmental disasters in other countries and create serious diplomatic problems for the countries concerned.

This problem is recognised under the Basel Convention. The preamble notes the concern of the Parties on the problem of illegal transboundary traffic in hazardous wastes and other wastes. The Convention goes further to require that illegal transboundary traffic in hazardous wastes or other wastes be treated as a criminal offence (art.4(3)).³ This is to be read with art.4(4) which *requires Parties to take appropriate legal, administrative and other measures to implement and enforce the Convention, including measures to prevent and punish conduct in contravention of the Convention.* Given the seriousness of the problem measures against illegal trafficking of waste are critical to the implementation of the Basel Convention.

Despite making substantial progress in implementing the Basel Convention, Botswana's Waste Management Act does not even mention illegal transboundary traffic in hazardous wastes and other wastes. The criminal offences provided for in the Act are limited to transgressions against registration or licensing requirements in waste operations (See sections 12(2), 13(2), 14(2), 32(2), 34(1), 51(4) and 54(3). Section 45 (1) provides that the Basel Convention shall apply in regulating the transboundary movement of waste, however this is not adequate as there is no explicit provision in the Act that criminalises illegal transboundary movement of waste. A registered and licensed operator can deliberately dump hazardous waste across Botswana's borders without incurring any penalty for such conduct. An unregistered and unlicensed operator can also do the same and escape punishment for the transboundary movement of the waste; the only possible punishment he may face is moving or handling waste *in* Botswana without a licence or registration. Illegal traffic in waste also has direct implications on Botswana since the Convention requires certain steps to be taken by the country of the illegal trafficker to redress the situation (see art 9(2)). The law does not deal with the extra-territorial offence which, for the purpose of the Basel Convention, is a major issue which has to be addressed in the domestic legislation. This is a major gap in the legislation which requires to be addressed as it is at the core of Botswana (and the Convention)'s implementation obligations.

The other notable gaps in the Waste Management Act also relate to the movement of transboundary waste. Under the Basel Convention there are specific rules for labeling, packaging and documentation for transboundary hazardous waste. The Act

³ Article 9 thereof defines illegal traffic as any transboundary movement of hazardous wastes or other wastes: (a) without notification pursuant to the provisions of this Convention to all States concerned; or (b) without the consent pursuant to the provisions of this Convention of a State concerned; or (c) with consent obtained from States concerned through falsification, misrepresentation or fraud; or (d) that does not conform in a material way with the documents; or (e) that results in deliberate disposal (e.g. dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law.

speaks generally of the Minister's powers to prescribe adequate classification, safe packaging and clear labeling of all controlled waste transported by road, rail, air, or above water (s50). Further, s55 also speaks generally of the Minister's powers to make regulations which may provide for (inter alia) transboundary movement of waste and packaging and labeling of waste. There are three problems with both provisions (s50 and s55).

- First the spirit and substance of the Basel Convention makes it clear that the labeling and documentation provisions *should* be part of the national measures dealing with the movement of transboundary hazardous waste and other waste. On the other hand the Waste Management Act does not make these a requirement but gives the Minister *discretionary powers* to decide whether or not to make regulations covering such issues. It is submitted that the wording of these provisions creates discretionary powers (which ordinarily are an accepted and routine administrative concept) where the international instrument concerned did not provide room for such discretion as the subject matter forms part of the basic minimum standards expected from State Parties;
- Second, s50 and s55 do not specifically address transboundary hazardous waste. These provisions speak of controlled waste in a general sense, and do not deal with the cross-border dimension as the Basel Convention would have in the context of articles 4(7)(b-c); and
- Third, even if it were to be accepted that the matters covered under art. 4(7) as discussed above could be dealt with in the context of subsidiary legislation, the problem is that the consultants were unable to locate any such regulations made pursuant to the generality of the Waste Management Act. It is possible that some regulations have been passed to aid the full implementation of the Act, and in principle, the Basel Convention. It may well be that there are no such regulations, which is another problem, or that they exist, but they are not generally available, which is a problem on its own.

6.3. *Situation with agrochemicals waste*

The exact scope of the Waste Management Act is not very clear when considered in relation to agricultural chemicals. Agriculture is a key productive activity in Botswana which utilises significant amounts of chemicals and which produces equally significant waste materials. Ordinarily one would expect such waste to be covered by the Waste Management Act unlike specialised wastes like radioactive materials which have separate tailor-made legislation.⁴

However a reading of s31 of the Agrochemicals Act and s12 of the Agrochemicals Regulations indicates that there appears to be two separate waste management regimes in place. This is not a problem where the law is dealing with specialised types of waste, but nothing supports the suggestion that agrochemicals create a specialised waste that should not be covered by the Waste Management Act. There are a number of inconsistencies and legislative gaps that create practical problems for the waste management regime if the Agrochemicals Act and the Waste Management Act are taken into consideration. It is important to go into some detail as this problem has serious implications since this affects agrochemicals producers, importers, users and the society at large.

- It is a crime to move controlled waste without a waste carrier licence or registration as such (s12(2) and s13(2) of the Waste Management Act). It is also an offence under the same Act to manage a waste disposal facility without a licence (s28). However under s24 a waste management facility may be operated without such a licence if an exemption is granted because, for example, *adequate controls are provided under any other enactment*. Under s55 the Minister is also empowered to make regulations governing, *inter alia*, the collection, disposal and treatment of controlled waste.
- Under s15 of the Agrochemicals Act no person is permitted to manufacture, import, distribute, sell or *dispose* an agrochemical without a licence issued under the Act. Section 31 empowers the Minister to make regulations governing, *inter alia*, the disposal of agrochemicals and waste derived from agrochemicals.
- A number of questions arise from the two clearly separate licensing regimes for waste disposal which are administered by two different Ministries:
 - Does a person licensed under the Agrochemicals Act to dispose agrochemicals or waste derived from agrochemicals require licensing under the Waste Management Act (e.g. to handle the waste as a carrier, or to manage the waste at a facility designed for the purpose?)

⁴ See the Radiation Protection Act, 2006.

- Does the Agrochemicals Act provide *adequate waste disposals controls* to qualify a licensee under that Act for an exemption from the requirement that one must have a licence to operate a waste management facility? Or are the controls good enough to warrant ignoring the potential problem caused by two separate regimes?
- Which regime between the two Acts takes precedence over the other in the event of conflict?

Box Insert: 3. Waste Management Act and the Agrochemicals Act; A Problem of operation

Possibility of double licensing

It looks possible that a person disposing of agrochemicals and waste derived from such chemicals may have to be licensed under the Waste Management Act (but see point below). This adds costs to business and is not ideal.

Adequacy of the Agrochemicals Act waste disposal controls.

Section 12 of the regulations to the Act makes provision for specific procedures to be adopted by licensed persons for the disposal of agrochemicals waste. This provision is very brief. The most relevant part of s12 relates to procedures for the “disposal of lightly agrochemical contaminated waste.” There is no provision for the disposal of heavily agrochemical contaminated waste. This is a serious omission since the disposal of hazardous agrochemicals waste is not covered by the regulations. The waste disposal controls under the Act are therefore far from adequate as there is a clear lacuna in the legislation.

The applicable regime

The two Acts cover the same matter differently. In general the provisions of a later statute are deemed to take precedence over those of an earlier one where there is conflict or lack of clarity over the same subject matter. In this case the Agrochemicals Act (came into force in 2000) would ordinarily take precedence over the Waste Management Act which came into force in 1998. This is an unfortunate scenario as the waste disposal controls under the Agrochemicals Act are inadequate. However it is possible to stretch the issue by submitting that since these controls are in the form of subsidiary legislation they cannot take precedence over the Waste Management Act. The problem still remains in that a person disposing of agrochemicals waste under the Agrochemicals Act does so on the basis of a licence issued in terms of the Act and not its subsidiary legislation and this Act still takes precedence over the Waste Management Act. Hazardous agrochemicals waste remains outside the ambit of either legislation and this is a problem for law enforcement and the environment.

6.4. *The situation with respect to chemical wastes from mining and quarrying*

Botswana is a mining based economy. This significant industry is governed in part by the *Mines, Quarries, Works and Machinery Act*. The box insert below identifies the key issues that arise with regards to chemicals management under this Act.

Box insert: 4. Chemicals management under the Mines, Quarries, Works and Machinery Act

SCOPE

The Mines, Quarries, Works and Machinery Act provides for the safety, health and welfare of persons engaged in prospecting, mining and quarrying operations and related works and the inspection, and regulation of mines, quarries works and machinery used in connection thereof and all matters incidental thereto.

Relevance to MEAS

The Act deals with pollution in a very limited and generalized sense, and hence also has little relevance to the Stockholm Convention. It has some relevance to the Basel convention as it deals with the disposal and control of waste products related to mining and quarrying activities. It dates back to the 1970’s and its relevance is limited as it does not address the key aspects of the MEAS which were formulated way after this Act was passed.

Administrative arrangements

This Act is administrated by the Ministry of Minerals Energy and Water Resources, in consultation with the Mines, Quarries and Works Safety Committee, made up of persons appointed from mine proprietors and workers representatives.

The Minister, under section 11(h), is empowered to make regulations for the disposal and control of waste products, and at section 11(x), for the ventilation and the control of dust, gases, and toxic or deleterious substances. Those are matters covered by the Basel convention, and are also within the scope of the Waste Management Act which incorporates the Basel

Convention. The question that arises therefore is whether the Mines, quarries, works and Machinery Act provides adequate control for the disposal of chemical waste generated through mining activity.

The disposal and control of waste from mining and related activities is regulated by the Mines, Quarries Works and Machinery Regulations of 1978.

Part xii of the regulation deal with the disposal and management of ventilation, dust and toxic gases, and entrusts the management of these substances in the mine Manager, who reports to the mine Engineer. All harmful by products of the activities under this Act are supposed to be disposed of in a manner that is safe to both people and the environment.

Part xvii of this Act deals with the regulation and classification of dumps and it provides that for every classified dump a competent person or persons shall be appointed by the Manager to supervise its operations to make it safe and secure. The Manager monitors activities in the dumps and reports to the Engineer. The reporting intervals are too long and this creates opportunity for harm. The Act, read together with the Regulations, does not address Botswana's obligations under the MEA's, even in so far as the Basel Convention is concerned. Mining companies are not required to adhere to the dictates of the convention with regard to the movement of waste subject to transboundary movement.

The Act also introduces a management regime separate from the Waste Management Act which depends on the goodwill of the mine operators, the system is almost similar to a self-regulatory mechanism. The persons responsible for the oversight of waste from mining and related activity, the Engineers, are also not trained to deal specifically with the requirements of the MEAs, as they deal with other aspects of mining and related works.

6.5. Management of pesticides and chemicals

The available laboratories need upgrading and capacity building to address issues of chemicals management (Secretariat of the Rotterdam Convention)⁵. Other national circumstances relevant to the implementation of existing laws were cited as lack of skilled manpower, infrastructure and funding (Secretariat of the Rotterdam Convention, 2010).

The use of pesticides is monitored by plant protection officers. However, most of the officers need specialized trainings to effectively monitoring activities related to pesticides. There is general lack of awareness about handling of pesticides. The country has about 75 mt of obsolete stock for disposal (FAO, 2007).

The Agro-Chemicals Act is limited to those chemicals utilised in agricultural activities (which includes pesticides); hence the national framework does not adequately address *both* pesticides and industrial chemicals. Consequently the framework does not implement the Rotterdam and Stockholm conventions. These conventions are only partially addressed through the administrative arrangements described under *Table 3* above and which are not based on a legislative framework. Apart from the Waste Management Act, the existing legislation that has some relevance to chemicals management is not informed by the main substance of the Rotterdam and Stockholm conventions, amending such legislation to conform to these conventions is not an ideal option as it creates a piecemeal solution. Instead what is required to domesticate these conventions is an approach that creates an integrated chemicals management law to complement the Waste Management Act which deals with the final stage in chemicals life-cycle.

6.6. Application of Key Concepts and Principles of MEAs

The basic concepts and principles relevant to environmental laws are summarised under *Box Insert 1* above. The existing legal framework in Botswana does not include effective means to operationalise these basic concepts and principles, the framework deals with the basic principles only in a limited sense by adverting to concepts of pollution prevention and human health. The most visible public participation about toxic chemicals is only in the context of the recognition of the farming community as an advisory stakeholder under the Agro-Chemicals Act. This Act also requires the authorities to conduct public awareness campaigns on agrochemicals. The bulk of the key concepts and principles are not addressed.

⁵ Executive Summary of Botswana's National Action Plan, *Sub-Regional consultation to identify elements of National Action Plans or strategies for the implementation of the Rotterdam Convention for Botswana, Lesotho and Malawi*, Gaborone, 5-9 April 2010, Secretariat of the Rotterdam Convention.

6.7. *Institutional framework*

The FAO⁶ notes that with respect to pesticide management there has been an effective mechanism for national collaboration through “National Chemical Committee” as provided for under the Agrochemicals Act. This Committee is made up of various government departments involved in pesticide management, it also has private sector and farming sector representation. As such it represents positive national coordination of key policy advice to enable the Ministry to make well-informed policy decisions. The same cannot be said of the general chemicals management institutional framework.

As reflected under *Table 3* above, the administration of the legislation governing chemicals management in Botswana is not performed by a single designated national authority. Various government departments (see *Table 3-4*) administer the legislation or take the administrative lead depending on the purpose of the legislation. Hence Botswana has a fragmented institutional framework for governing chemicals management. Such fragmentation does not provide for a sound institutional framework that assists the coordination of a general chemicals management regime. Some level of coordination around a single administrative authority is required for chemicals management legislation to be effective; lessons can be derived from the example under the Agrochemicals Act.

6.8. *The relevance of the Environmental Impact Assessment Act*

The Act was passed in 2005 to:

- Provide for environmental impact assessment to be used to assess the potential effects of planned development activities;
- Determine and provide mitigation measures for effects of such activities as may have a significant adverse impact on the environment; and
- to put in place a monitoring process and evaluation of environmental impacts of implemented activities.

Under section 3 of the Act the Minister is empowered to prescribe the nature of activities that are required to comply with this Act, that is before implementation, carrying out an environmental impact assessment; and during implementation, ensuring that no harm is caused to the environment. This Act is relevant to the three MEAs when read with the *Environmental Impact Assessment Regulations* (2012)⁷. The activities for which environmental impact assessments and continuous evaluations thereof (once the activity has been approved) include the following:

- mining and extractive industries development and operations
- waste management
- chemical, rubber and plastic industry
- leather and textiles industry; and
- Agriculture projects.

All the above activities involve the generation, use or conveyance of chemicals. To this extent the EIA is relevant for this study. However it is critical to note that the main focus of this Act is to

⁶ Summary Report of the Workshop on Pesticide Management in Southern Africa , June 14 2007, South Africa <http://www.fao.org/ag/AGP/AGPP/Pesticid/Specs/docs/Pdf/new/PesticideWorkshopSAfrica07.pdf>

⁷ The relevant official document was still in draft form at the time of accessing it under: <http://www1.eis.gov.bw/EIS/EIA/Shared%20Documents/Project%20Brief.pdf>

prevent the establishment of environmentally dangerous activities through the carrying out of impact assessments prior to establishment thereof. This comment arises notwithstanding s21 of the Act which requires the carrying out of biennial environmental audits of activities for approval and operational purposes. The Act requires these audits to be carried out at the expense of the relevant competent authority, and this is a direct cost to the fiscus. In view of the constrained public finances this is a challenge to the constant monitoring and evaluation of the relevant activities.

Further the Act also creates more institutional and implementation problems for Botswana's chemicals management frameworks. This is because even though the law is administered by the Environment and Tourism Ministry, it does not clearly make provision for an institutional framework to ensure that project approval, and activity monitoring and evaluation are conducted efficiently. Section 20 of the Act merely states that '*the relevant technical department or local authority shall ensure, during and after implementation of an activity, monitor the implementation of the activity to determine compliance with the agreed mitigation measures*'. There is no clear attempt in this respect to link the institutional mechanisms with those existing under the key sector legislation discussed above (e.g. the Agro-chemicals Act, Waste Management Act).

6.9. *The Draft Chemical Substances and Products Bill 2004 and Steps For Domesticating the MEAs*

Because Botswana has not yet put measures in place to domesticate the Stockholm and Rotterdam conventions the above review also has to consider other positive efforts which the country has made in addressing these conventions. Such positive efforts are evidenced by the Draft Chemical Substances and Products Bill (the bill) which was produced in October 2004. The consultants reviewed this bill in the context of Botswana's existing chemicals legislation, and the country's international obligations with respect to the implementation of the MEAs. *Table 6* is a detailed analysis of the bill in that context (the table is attached as an annexure to this report). The fact that the bill was not passed into law is a positive development as it has given rise to the opportunity to review it and make suggestions on its improvement. For the purpose of the main report we advert to the following issues which require attention (as detailed in *Table 6*);

- The definition of "chemical";
- The scope of the bill;
- Institutional provisions;
- The licensing regime;
- Status of chemicals being exported; and
- The treatment of seized chemicals.
- Inspections prioritized on very high concern chemicals;
- Reference laboratory; Qualitative testing for monitoring and verification purposes;
- Provision to domesticate international chemical and legally binding treaties, such as the Rotterdam and Stockholm convention;
- Provisions to regulate all aspects of the life-cycle of chemicals
- Provisions for risk assessments by Government and industry and product stewardship by industry;
- Risk communication strategies for awareness raising and outreach and outreach and education to support risk prevention and reduction;
- Provision for Emergency prevention, preparedness and response;
- National strategies for domestic support for the sound management of chemicals; Economic instruments including cost recovery mechanisms.

Addressing these issues will serve to strengthen the proposed chemicals management legislation and to aid Botswana's domestication and implementation of the international instruments on chemicals management.

Table 6: Detailed Review of the Draft Chemical Substances and Products Bill 2004 (The Bill)

Provision	Comments
Interpretation	<p>A number of critical issues arise from the definition contained in the Bill.</p> <ul style="list-style-type: none"> Section 2 thereof defines “chemical” as “a chemical as it exists in nature, as manufactured or as contained in goods, which has the potential, even in low concentrations, to have a significant adverse effect on human health or the environment on account of its inherent physical-chemical properties, such as toxic, ignitable, corrosive, carcinogenic or other properties”. It is advisable to stick to the context of the Bill, and for example simply use the definition provided for under the Rotterdam Convention where “chemical” is defined as; “a substance whether by itself or in a mixture or preparation and whether manufactured or obtained from nature, but does not include any living organism. It consists of the following categories: Pesticide (including severely hazardous pesticide formulations) and industrial;”. The Convention goes on to define “banned chemical”, “severely restricted chemical” and “severely hazardous pesticide formulation”. This is a clear approach, which should help in the interpretation section of the Bill in so far as industrial chemicals are concerned.
Application	<p>This refers to the scope or subject matter covered by the Bill. The Bill defines this scope as follows:</p> <p>“(1) This Act shall not apply to radioactive substances, products which are mixtures of substances in the form of waste according to the Waste Management Act ,Explosives or ammunition and chemicals in transit or which are being exported.</p> <p>(2) The following substances and products ready for use and intended for the final user are not included under this Act</p> <p>(a) Food as defined in the Food Control Act;</p> <p>(b) Medical products as defined in the Drugs and Related Substances Act; and</p> <p>(c) Agrochemicals as defined in the Agrochemicals Act”</p> <p>A number of problems arise from the above wording of the scope of the bill.</p> <ul style="list-style-type: none"> It is not apparent why reference is made to the Waste Management Act and “products which are mixtures of substances in the form of waste according to the Waste Management Act” excluded from the application of the intended chemicals legislation. The Waste Management Act defines “waste” as including “the following substances and any combination thereof which are discarded by any person or are accumulated or stored by any person for the purpose of recycling- (a) undesirable or superfluous by-products; (b) residue or remainder of any process or activity; (c) any gaseous, liquid or solid matter.” The implication of the Bill is that all these are excluded from the application of the chemicals management law as proposed in the Bill. The paradox created by the Bill is that all gaseous, liquid or solid matter will be excluded from its ambit. This defeats the entire purpose of the proposed Bill. We submit that there is no need for the reference to the Waste Management Act, and the subsequent phrase discussed above. Second it is not apparent why the Bill excludes chemicals in transit through Botswana or being exported from Botswana. The purpose of the Bill is to prevent harm to Botswana. Such harm can be caused by a chemical in transit through Botswana. It matters not that a chemical is in transit. Further, in terms of the MEAs the responsibility of a State is not only limited to its immediate territory, both the Stockholm, Basel, and Rotterdam conventions place obligations on the State to ensure that other States are equally protected through such devices as the Prior Informed Consent Procedure or Notifications concerning

production, sale, import and export of chemicals. For example art. 11 of the Rotterdam Convention stipulates State responsibilities in connection with the export of certain chemicals. The phrase on the exclusion of chemicals in transit or meant for export from Botswana should be deleted.

- Third Agrochemicals as defined in the Agrochemicals Act are excluded from the scope of the Bill. It may well be that the drafters of the Bill created this exclusion because a system of regulation already exists for agrochemicals in that Act. However we have already made observations about the inadequacy of this Act in relation to agrochemicals regulation. We have also recommended that integrated chemicals management legislation be adopted to aid proper implementation of Botswana's obligations under the MEAs and to further protect the country and its people. Apart from the efficiency gains argument there are further compelling reasons why agrochemicals should not be excluded from the scope of the Bill. By definition the Agrochemicals Act includes the regulation of pesticides. Pesticides are also covered by the Stockholm and Rotterdam conventions. Both conventions provide for international cooperation and regulation of such substances (especially severely hazardous pesticide formulations). By excluding pesticides from the ambit of the Bill Botswana risks not subjecting pesticides to the internationally accepted regulatory regime, in other words all the positive safeguards stipulated in these conventions and in the proposed Bill will not apply to pesticides in Botswana. It is recommended that the provision excluding agrochemicals from the application of the proposed bill be deleted as it serves no positive purpose.
- Fourth, the wording of the Bill is too wide as the stated application of the Bill will prevent individual use of chemicals (as opposed to trading, manufacturing etc). It will also prevent research and development (R&D) use of chemicals; R&D is critical to industrial development. In this case it is recommended that the provisions defining the scope of application of the Bill be amended by adding the following wording "Chemicals in quantities not likely to affect human health or the environment provided they are imported: (i) for the purpose of research or analysis; or (ii) by an individual for his own personal use in quantities reasonable for such use". This is consistent with art.3 of the Rotterdam Convention.

Designated national authorities

The proposed Board is well represented, however the scope for attributes disqualifying a person for Board membership needs to be widened. Add to section 5 the following:

- "being a holder of a professional qualification, has been suspended or barred from practising the profession within or outside Botswana"
- "Is a licensee"
- At s5(a); "or has made an assignment, arrangement or composition with his or her creditors, which has not been rescinded or set aside". In addition amend s5(c) to include Councillors as people barred from Board membership. The suggestions are standard practice in Botswana. See for example, s6 of the Radiation Protection Act.
- The tenure of office for the Board members as provided for in s7 is too short, two years does not confer the stability and continuity required for such specialised services. Amend provision to state that a member shall hold office for a period not exceeding five years. This is a practical period, see for example s8 of the Radiation Protection Act.
- The provision for grounds for removal from office as a Board member is vague. Amend s8 to add clarity by for example stating the following: "The Minister may, by notice in writing, remove a member from office where a member- (a) is absent, without reasonable cause, from three consecutive meetings of the Board of which he or she has had notice; (b) has been found to be physically or mentally incapable of performing his or her duties efficiently, and a medical practitioner has issued a certificate to that effect; (c) is inefficient in the discharge of his or her duties; (d) contravenes the provisions of this Act or otherwise misconducts himself or herself to the detriment of the objectives of the Board; or (e) has failed to comply with the provisions of section 18". NB the draft is incorrectly numbered, there are two sections 18, reference here is for the s18 under Part IV of the Bill.
- The 3 months notice period for resignation of board membership is too long, amend s9 to make the notice period 30

days. This is standard practice.

- Whilst under s15 the bill envisages the appointment of non-board members to the various committees of the Board, the Bill is silent on what should disqualify a person from holding a committee position in the case where such a person is not a Board member. Insert a clause similar to the one suggested above with respect to disqualifications for Board membership, and further with respect to the period of notice for terminating membership. The Board should also be given powers to terminate a person's membership of a committee (non-Board members), add this provision by simply adopting the clause giving the Minister powers to terminate Board membership (delete "Minister" and substitute with "Board". Further it is important to insert a provision indicating that the chairperson of a committee shall be a Board member, and that a simple majority of the members of a committee shall form a quorum at any meeting of a committee.
- At s16(2) delete "National Chemical Database" and substitute with "the Board or a committee".
- There is no penalty for breaching the confidentiality provision under s16. Add clause reading "Any person who contravenes the provisions of this section shall be guilty of an offence and liable to a fine not exceeding P....., or to imprisonment for a term not exceedingmonths, or to both, and for a second or subsequent offence to a fine not exceeding P....., or to imprisonment for a term not exceeding months, or to both."
- There is no provision for the number of Board members who can form a quorum under s17. Add provision reading "Any five members shall constitute a quorum at any meeting of the Board". Five is a reasonable number given that the maximum Board membership is eleven.
- Delete s17(3), it does not make sense. Substitute with "The decisions of the Board shall be by simple majority of votes of the members present and voting at a meeting for the Board, and, in the event of an equality of votes, the chairperson shall have a casting vote in addition to his or her deliberative vote."
- At s17(6) delete "secretary" and substitute with "Secretariat".
- The penalty for non-disclosure of personal interest on matters being deliberated by the Board is not consistent with other relevant statutes or current practice. Rephrase s18(3) to read, "A person who contravenes the provisions of subsection (1) shall be guilty of an offence and liable to a fine not exceeding P....., or to imprisonment for a term not exceeding months, or to both."

Licenses

Part V (numbered incorrectly as s18-) deals with the procedure for licensing persons dealing with chemicals.

- The scope of activities requiring licensing does not include exporting chemicals. This is a limitation which creates an escape route for exporters of chemicals which may end up creating serious harm to other countries. The spirit of the Rotterdam Convention applies to importers and exporters of chemicals. Hence s19 (1) should be amended to insert "export" as an activity to be regulated by the law.
- Further the section has no penal clause to prevent and punish unlicensed handling of chemicals. Such a clause is critical to Botswana's obligations and should be inserted. A guiding example can be s30 of the Agrochemicals Act.
- Section 20 which governs the period of validity of licences is incomplete; the word "period" should be inserted. The provision is also badly phrased as it requires that a licence which has expired *should* be renewed. This makes renewal of licences automatic on expiration and removes the decision making powers of the Designated National Authority thus creating the paradox of having a person who may not meet licensing conditions being automatically granted a licence by virtue of having a previous licence having expired. The scrutinizing role of the DNA should be preserved by deleting the word "shall" and substituting it with "may" to permit a scientific investigation to take place before a licence is renewed.
- Section 23 creates licensing exemptions on "any chemical imported for specific use by the Government its agent or a non-profit making organization," or "any chemical imported as a donation to the Government or to a non-profit making

organization”. It is not clear what this section is aimed at, but there are a number of problems with this provision:

- First the provision confuses licensing persons to carry out specific activities with a chemical and licensing chemicals. The subject matter for licensing is the person, chemicals are registered.
- Second, the exemptions destroy the whole objective of the Rotterdam Convention and related instruments on chemicals management. Article 27 of the Convention makes it clear that *no reservations* may be made against it.
- Third the purpose of the Bill and the MEAs is to provide for the protection of human health and the environment from hazards presented by chemicals. That purpose is not served by exempting Government, its agents, or non-profit making organisations from the purvey of the regulatory environment. The paradox created by this section would have a religious organisation (for example) dealing with an extremely hazardous chemical without a licence simply because the organisation is non-profit making! Or a person doing the same without a licence simply because he is an agent of the Government. No sensible objective is served by this section and it should be deleted in its entirety.

Information on chemicals etc

Parts VII-X of the Bill govern issues such as chemicals safety data sheets, establishment of a National Chemical Database, notification of chemicals, restrictions, banning etc of chemicals.

- However the whole section of this Bill does not address export activities related to such issues and chemicals. The Rotterdam Convention relates to the import as well as export of chemicals and the Parties responsibilities cover exporters within its jurisdiction as well. This aspect should be made clear by inserting responsibilities of exporters wherever other people’s responsibilities are mentioned in the Bill.

Treatment of seized chemicals

Section 40 of the Bill empowers chemical inspectors to seize chemicals where the inspector suspects a criminal act. There are some problems with this section.

- There is confusion as to what exactly should be done with seized chemicals, the section uses the words “chemicals” and “property” seized. In one subsection the provision requires seized “property” to be disposed of in accordance with the relevant provisions of the Criminal Procedure and Evidence Act. In another the provision stipulates that any “chemical confiscated by state [sic] shall” be (a) auctioned by public auction; or (b) disposed of as hazardous waste in accordance with the provisions of the Waste Management Act.”
 - It is not clear why the law enforcement officers are limited to either selling the chemicals by public auction or disposing of them as hazardous. The whole provision goes against the purpose of the bill which is to protect human and environmental health from dangerous chemicals. Why the public would be invited to buy such chemicals is far from clear. Further the provision negates the obvious fact that the whole bill is meant to licence any dealings with chemicals, so the paradox created here is that anyone can actually auction or buy such chemicals outside the context of the purpose of the Bill. In terms of s18 of the same bill no one is supposed to deal with chemicals without a licence to that effect. A public auction negates that requirement.
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Table 7: Recommendations and Step-by-step plan for implementing chemicals management MEAs in Botswana

Implementation Issue	Steps to be taken
<p>Waste Management</p> <p>1. Waste Management Act:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lack of hazardous waste disposal facilities <input type="checkbox"/> Illegal traffic in waste not covered <input type="checkbox"/> Packaging requirements for trans-boundary waste not addressed <input type="checkbox"/> Movement documentation for trans-boundary waste not covered. <input type="checkbox"/> Subsidiary legislation or regulations not yet in place <p>2. Agrochemical waste</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rationalize conflicting relationship between the Waste Management Act and the Agrochemicals Act • Bring agrochemical waste into general waste management law 	<p>Waste Management</p> <ul style="list-style-type: none"> • Conduct a needs assessment to identify the full infrastructure, technical and financial resources required for the country to implement obligation to avail adequate and safe disposal facilities. This is a multi-department initiative which should be coordinated by the Department of Waste Management and Pollution Control. • Amend the Waste Management Act to address gaps identified. • Draft all subsidiary legislation and regulations necessary to assist in the full implementation of the Act (as discussed in the main report) • Amend the Agrochemicals Act to ensure waste management issues are not covered by this Act but by the Waste Management Act.
<p>Management of Pesticides and Industrial Chemicals</p>	<p>Management of Pesticides and Industrial Chemicals</p>
<p>1. Infrastructure needs</p> <p>2. Technical needs</p> <p>3. Public awareness</p> <p>4. Integrated chemicals management framework</p>	<ul style="list-style-type: none"> <input type="checkbox"/> • Prepare full laboratories infrastructure needs assessment • Prepare full technical capacity needs assessment • <input type="checkbox"/> Identify potential partners to assist with technical and financial resources to address capacity and infrastructure gaps. Technical assistance provisions under the chemicals management MEAs should be initiated as a multi-department task coordinated by Ministry of Health. Further assistance should also be sought outside MEAs provisions, e.g. the European Development Fund country assistance programme, concessionary loans from Development Finance Institutions such as the African Development Bank and the Development Bank of Southern Africa.

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- Review current (if any) public awareness programmes on chemicals and pesticides handling; increase outreach programmes on the issue through existing social communication channels such as the *kgotla*.
 - Introduce an integrated chemicals management framework by passing new legislation to complement the Waste Management Act which is concerned with the final life-cycle stage of chemicals. This requires redrafting the Draft Chemical Substances and Products Bill (2004). Steps to be taken are detailed separately under *Table 6*.
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7. Conclusions and Recommendations

As a developing country Botswana has made positive progress in addressing the regulatory aspect of chemicals management. This study forms clear evidence that the GoB is concerned about improving on progress that has been made so far. The authorities view the further development of the chemicals management framework as an activity in the best interests of the country. The consultants have attempted to draw out the key issues which need to be addressed in order to enhance the country's efforts in this direction. Having noted that the current chemicals management framework is fragmented, and that it has partially addressed the domestication of the relevant MEAs, we recommend that the country adopt an integrated chemicals management framework. To achieve this, the consultants have recommend steps that they we consider as essential (see *Table 7*). *Table 7* should be read with *Table 5* as the latter table contains detailed issues to be tackled as part of the implementation process of the chemicals management of MEAs.

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