

**REPUBLIC OF KENYA**



**MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES**

**THE UPDATING OF THE KENYA NATIONAL IMPLEMENTATION PLAN UNDER THE STOCKHOLM  
CONVENTION ON PERSISTENT ORGANIC POLLUTANTS**

**CONSULTANCY: LEGAL POLICY AND INSTITUTIONS**

**(FINAL DRAFT REPORT)**

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## **EXECUTIVE SUMMARY**

The ***Stockholm Convention on Persistent Organic Pollutants*** (POPs) is a multilateral agreement that establishes the commitment of signatory Parties like Kenya to protect human health and environment from the risks posed by POPs. Initially developed to target 12 POPs, the **Stockholm Convention** also established long-term objectives including the potential of listing additional POPs for reduction or elimination and use.

After completing a review process and the development of a Risk Profile and a Risk Management Evaluation of 9 new chemicals, the Persistent Organic Pollutants Review Committee (POPRC) of the **Stockholm Convention** recommended that these be listed as POPs in the annexes A, B and C of the Convention, and they were so listed in May, 2009. These chemicals are brominated flame retardants (BFRs). Another amendment May, 2011 added technical endosulfan and its related isomers, with specific exemptions.

After these decisions/amendments came into effect, all Parties are obligated under Article 7 of **Convention** to update their National Implementation Plans (NIPs) to address the new POPs in a manner specified by the Conference of Parties. The COP has adopted guidance on reviewing and updating NIPs and one of the reasons is changes in obligations of parties arising from, *inter alia*, amendment to the **Convention** or its Annexes A, B, or C. Furthermore, Parties are obligated to align their national legal regimes to conform with the requirements of the **Convention** and to conduct inventories to determine possible production, use, import, export and trade in these substances.

Kenya is a party to the **Convention** which it ratified in 2004. The amendment having entered into force on 26<sup>th</sup> August, 2010, created new compliance and implementation obligations for Kenya - to review and update its NIP and transmit it to the COP within two years of the date of entry into force. However, due to drastic changes in its institutional arrangements arising from the new dispensation created by the Constitution of 2010, Kenya was unable to meet this requirement.

To enable Kenya to comply, an inventory of its capacity to do so needed to be carried out. In this exercise, Kenya took advantage of its Experience and Lessons Learnt in the process of updating its NIP with respect to the 12 old POPs.

The updating process needed to: identify relevant Objectives and Goals and to develop Action Plans for the new POPs. There exist various guidance materials, for example UNITAR's guidelines, which were used in this inventory.

Kenya also simultaneously took an inventory of the status of implementation of its NIP, and to develop a profile of the new POPs at the national and county levels to consider how potential information gaps in the NIP update will be addressed. Since the intention of the Convention is to eventually ban or severely restrict the use of new POPs, Kenya also addressed the requirement of the **Convention** regarding finding alternatives to new POPs, and to illustrate the successful attempts/or not to use alternatives. The

inventory, also in complying with Kenya's obligations under the **Convention**, identified the country's challenges associated with the new POPs and suggested how it intends to address them.

As a first step in meeting its obligations regarding new POPs and towards updating its NIP, Kenya conducted an evaluation of the current status of each new POP.

**The inventory process followed** in this exercise included:

**Initial review** – to determine if each new POP is used, produced, imported or exported. This involved the review of the chemicals management instruments (including policy, legal and institutional) and chemicals inventory and registration processes for chemicals. This was done in direct consultation with industry, government and government agencies (e.g. customs, KRA, KEBs, NEMA), universities and research institutions, civil society and the public.

**Results of the review:** Where this review revealed that a new POP (e.g. PCBs), was used produced or imported, a nationwide inventory was carried out in consultation with relevant stakeholders to collect data on: Use, production, import and export; Main producers and importers; **Main regulations;** Releases to the environment; Monitoring and exposure; Local scientific studies on adverse effects; and available alternatives.

This data was integrated into the NIP updating process.

Where the Initial review revealed that there was no use, production, importation or export of the new POP, an inventory was carried out to find out whether there were Stockpiles, or Contaminated sites with any of the new POPs. Where these were found, Strategies were developed to eliminate stocks and to remediate contaminated sites. This data was also fed into the NIP updating process.

**Alternatives and Case Studies:** Substituting chemicals or processes with less hazardous ones is an effective strategy to reduce risks to human health and the environment. With international initiatives like the SAICM and Stockholm Convention adopting this approach, it is increasingly being accepted globally. Many case studies corroborate the feasibility of alternatives as well as the usefulness of established methodologies to identify and evaluate alternatives.

For example, **in the elimination of the use of DDT in Mexico** to control malaria, efforts focused primarily on alternative methods of controlling mosquitoes, which involved evaluation and testing alternatives to DDT, including biological controls; public education, emphasizing on the health and environmental effects of DDT; and information on community hygiene practices to reduce habitat and breeding sites of malaria vectors. Donor support greatly helped in this substitution project and Mexico was able to stop using DDT in 2000. The experience was shared with other Central American countries through demonstrative projects (Commission for Environmental Cooperation (CED) of North America, 2003).

However, it is worthy to note that the complete replacement of industrial chemicals can be more complicated due to their multiple uses and they can be complex mixtures. Therefore, the search for an industrial chemical is likely to be more difficult than for a pesticide. Exhaustive discussions with industry and the scientific community need to be done in the process of identifying the best options.

**Lindane:** In EU member states, the focus in the eighties and nineties was to replace the insecticide lindane with pyrethroids and the replacement of fungicide pentachlorophenol (PCP) by dichlofluanid. These chemicals were also contaminated with dioxins and consumers were reluctant to use them in their private environments. Strict regulations led to the decline of the use of PCP and lindane. Professional use is severely restricted. The substitutes are considered safer for human health and the environment.

**Brominated flame retardants (BFRs):** BFRs are used in a wide range of consumer products – electronic components, textiles, foam in upholstery, carpets and buildings. As awareness grew by the late 1980s of their dangers especially of PBBs and PBDEs, countries like Germany, Sweden, Denmark and Netherlands began restricting and banning their use and encouraged businesses to use alternative chemicals in addressing fire risks: materials and functional alternatives like use of non-flammable materials e.g. ceramics instead of plastic in circuit boards.

**Polychlorinated biphenyls (PCBs):** The use of PCBs in Sweden was restricted in 1972 and from 1978 no permits to use PCBs in new products were issued. The use of regulations and restrictions were adopted and the industry declined swiftly. PCBs were used as insulating fluid in transformers and capacitors for their thermal and electrical properties. Mineral and silicone oils are used as alternatives. In Sweden, the transfer to new chemical products and technical solutions was easy in most sectors of the industry due to the ready availability of alternatives. The main cost factor of the change was their destruction.

#### **Compliance Implications for Kenya:**

In complying with its obligations under the **Stockholm Convention Articles 3, 5 and 6** relating to the measures to be taken to reduce, or eliminate production, use, and releases of the new POPs and to report these efforts to the Secretariat, it has been recommended in this report that long-term goals be clearly defined when designing strategies to accomplish Kenya's obligations under the **Convention**. A consultative mechanism should therefore be adopted to include all stakeholders towards developing policies and laws and to improve capacities. Also, in order to avoid duplication of efforts, efficient and co-ordinated implementation mechanisms are established in this updated NIP.

In order to minimize risks associated to POPs emissions and exposure, this updated NIP has considered and recommended management practices that minimize these risks. In this respect and in compliance with the requirement that Parties report through the NIP on progress made to address priorities at national level, efforts at compliance have been included in this updated NIP.

#### **Activities to Support Implementation Efforts for the New POPs:**

Kenya, like many Parties, has in place a foundation for chemicals management based on regulatory instruments that support compliance with the **Convention** obligations. The legal framework for POPs has been evaluated in Chapter 2 of this report to determine if it is adequate to address the new obligations of the newly listed POPs.

The inventory the subject matter of this report therefore assessed the national legislative, regulatory, and enforcement capacities of Kenya regarding these new POPs. The consultancy involved desktop study of relevant literature, client briefing, workshops, stakeholder engagement, interviews, field visits and use of guidance materials developed by the **Convention** Secretariat.

**The legal, policy and institutional capacity inventory** found and duly recommended that the current legal framework will need to be updated and appropriate policy instruments be put in place. For example, the comprehensive **National Environment Policy, 2008** is still in draft form as are the **regulations** more particularly intended to address POP issues, like the E-waste and air quality regulations. Generally no specific and/or integral law is in place to address chemicals management including POPs. Such a law is strongly recommended. Although most Multilateral Environmental Agreements (MEAs) have now been domesticated in Kenya, the environment protection agenda still remains with the overarching framework legislation, the **Environment Management and Co-Ordination Act (EMCA)** and sector specific statutes which have yet to be harmonized with EMCA.

In the absence of specific policy, various environment strategies and national plans have been prepared, ensuring broad participation by stakeholders. However these planning tools appear not to prioritize and/or allocate the implementation agenda, thereby undermining their efficacy as guidance tools in Kenya's chemicals management mandate. Full advantage of such tools as Environmental Economic Instruments is yet to be taken, although the National Environment Management Authority (NEMA) is currently in the process of developing such guidelines.

Regarding the institutional arrangements, the chemicals management infrastructure is still scattered over various institutions and clarification of their roles and mandate(s) at national and regional levels is still outstanding. Meanwhile, the current arrangements create potential for overlapping competition and conflict between different Government agencies. It is recommended strongly that the outstanding actions towards this be fast tracked. This includes finalization and enactment of the **Draft National Environment Policy, 2008**.

The process of updating the legal, policy and institutional framework will include non-regulatory global and local approaches like economic Instruments, green development, green procurement, green chemistry, CDM, substitution principle, use of substitutes, carbon footprints, awareness raising, voluntary incentives and measures which will need to be developed and used. These should be supported by institutional capacity.

Since the process of updating the current chemicals regulation framework will be lengthy, involving protracted stakeholder engagement and public review of technical and legal issues, this report recommends that initial management practices be implemented through the non-regulatory approaches abovementioned in conjunction with industry and other relevant stakeholders. A voluntary scheme to reduce emissions, for example, or environmentally sound management of waste at source will help Kenya to comply while awaiting full implementation of its regulatory action plans.

**Inventories:** With the amendments coming into force, Parties are obligated to develop inventories in order to avail information on the new POPs at the national level. National inventories are an important

tool in reporting on priority chemicals like POPs. They are also a source of public information. They identify major sources of releases and provide estimates of amounts of chemicals used, released and disposed of. Inventories of new POPs were therefore conducted to identify their production, use and imports and then to prioritize which ones needed a national inventory, like BFRs, due to their wide use. Participation of all relevant stakeholders was facilitated in this inventory to ensure availability and accuracy of the data.

**Monitoring:** One of the properties of POPs is their potential for long-range transport and therefore measurement and monitoring of their levels in the environment was important. This considered hot spots and potentially contaminated sites in the country. It has been recommended in this report and the updated NIP that Kenya should include new POPs in its chemicals monitoring programmes. Strategies data obtained from monitoring will enrich policy and the country's regulatory framework. It will also feed into the Global Monitoring Plan (GMP) of the **Convention**.

**Reporting:** One of the requirements of the Stockholm **Convention** is for Parties to report on measures taken to implement relevant provisions of the **Convention** and their effectiveness. This includes Measures to reduce or eliminate releases from intentional production and use, as well as unintentional releases of POPs; Identification of articles in use and wastes containing chemicals listed in Annexes A, B and C; and Production, import and export of these chemicals. Article 15 has established an Online Electronic Reporting System (online ERS) and the government officers for reporting, in this case the ministry of Environment, Water and Natural Resources, which is spear-heading this updating of the NIP. Use of Pollutant Release and Transfer Registers (PRTRs) is increasing. They have helped regional and international efforts to reduce chemicals risks and should be encouraged here to meet obligations of information exchange under the **Convention**.

**Capacity building** issues are addressed since many countries with economies in transition like Kenya still do not have adequate technical and institutional capacities to fully develop and enforce chemicals management practices. This NIP update has included capacity building activities to contribute to compliance measures and to develop risk reduction measures under the **Convention**. It has identified technical assistance and funding needs. Programmes, policy, legal framework and institutional capacity under the current NIP will be revised and upgraded to address new POPs, for example strengthening the customs department and KRA and their operational context, to enable them to handle POPs more appropriately. The development of tariff codes specific for POPs can improve on tracking them at points of entry and provide more accurate data on imports and exports of POPs. Universities and research institutions will be strengthened to provide data on chemicals of concern. Scientific expertise will be developed. Kenya will take advantage of guidance, expertise, assistance and training support from international and regional organizations like OECD, WHO, FAO, UNITAR, UNEP, ICIPE, etc. In implementing its updated NIP, Kenya will also participate actively in bilateral, regional and global cooperation programmes that offer capacity training activities for the assessment of chemicals, including POPs.

Finally, **Awareness Raising** in compliance matters is addressed in this report. Article 9 of the Convention require Parties to exchange information, facilitate public information, awareness and education (Article

10), report to the secretarial (Article 15) and periodically update implementation Plans (Article 7). When updating the Kenya NIP, a mechanism for exchange of information on emerging chemicals issues that was geared towards spurring action on new chemicals POPs for example the SAICM was recommended. Communication and awareness-raising on new POPs will facilitate public participation, including the civil society and the private sector, business community, academia, government organizations at national and county levels, legal and policy experts and indigenous communities towards the sound management of POPs.

All initiatives will include all relevant stakeholders.

This report ends with a **Conclusion** and **Recommendations** that it is hoped will enhance Kenya's compliance under the Stockholm **Convention**.

## Abbreviations and Acronyms

<b>MDGs</b>	Millennium Development Goals
<b>SDGs</b>	Strategic Development Goals
<b>EMCA</b>	Management Coordination Act
<b>NET</b>	National Environment Tribunal
<b>NEC</b>	National Environment Council
<b>NEAP</b>	National Environment Action Plan
<b>NEAPC</b>	National Environment Action Plan Committee
<b>PCC</b>	Public Complaints Committee
<b>NETFUND</b>	National Environment Trust Fund
<b>SC</b>	Stockholm Convention
<b>POPs</b>	Persistent Organic Pollutants
<b>NRA</b>	Natural Resource Accounting system
<b>PECs</b>	Provincial Environment Coordination Committees
<b>DECs</b>	District Environment Coordination Committees
<b>SEAs</b>	Strategic Environment Assessments
<b>EAP</b>	Environmental Action Planning
<b>NGOs</b>	Non Governmental Organizations
<b>CBOs</b>	Community Based Organizations
<b>MTP</b>	Medium Term Plan
<b>COMESA</b>	Common Markets for East and Southern Africa
<b>EAC</b>	East Africa Community
<b>EU</b>	European Union
<b>MEA</b>	Multilateral Environmental Agreements
<b>CDM</b>	Clean Development Mechanism
<b>EIA</b>	Environmental impact Assessment
<b>EA</b>	Environmental Audit
<b>WEEE</b>	Waste Electrical and Electronic Equipment
<b>e-WASTE</b>	Electronic Waste
<b>KIRDI</b>	Kenya Industrial Research and Development Institute
<b>UNEP</b>	United Nations Environment Programme
<b>UNDP</b>	United Nations Development Programme
<b>BATs</b>	Best Available Techniques
<b>BEPs</b>	Best environmental Practices
<b>NIP</b>	National Implementation Plan
<b>MEWNR</b>	Ministry of Environment Water and Natural Resources
<b>PCPB</b>	Pesticides Control and Produce Board
<b>KEMRI</b>	Kenya Medical Research Institute
<b>KEMFRI</b>	Kenya Marine Fisheries Research Institute
<b>NEMA</b>	National Environment management Authority
<b>KARI</b>	Kenya Agricultural Research Institute
<b>LVEMP</b>	Lake Victoria Environment Management Programme/Plan
<b>LBDA</b>	Lake Basin Development Authority
<b>JKUAT</b>	Jomo Kenyatta University of Agriculture and Technology
<b>AFC</b>	Agricultural Finance Corporation
<b>KAM</b>	Kenya Association of Manufacturers
<b>NCSTI</b>	National Council for Science Technology and Innovations
<b>ERC</b>	Energy Regulatory Commission
<b>IPM/IVM</b>	Integrated Pesticide/Vector Management approaches
<b>SAICM</b>	Strategic Approach to International Chemicals Management



<b>QSP</b>	Quick Start Programme
<b>DNA</b>	Designated National Authority
<b>GEF</b>	the Global environment Facility
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>UNITAR</b>	United Nations Institute for Training and Research
<b>FAO</b>	Food and Agricultural Organization
<b>COP</b>	Conference of the Parties
<b>HCB</b>	Hexachlorobenzene
<b>PCDF</b>	Polychlorinated Dibenzofurans
<b>PFOS</b>	Perfluorooctane Sulfonic acid
<b>UNEP</b>	United Nations Environment Programme
<b>UNDP</b>	United Nations Development Programme
<b>POP-PBDEs</b>	Polybrominated Diphenyl ethers
<b>IOMC</b>	Inter-Organization Programme for the Sound Management of Chemicals
<b>ESM</b>	Environmentally Sound Management
<b>NCC</b>	National Coordinating Committee
<b>HCDA</b>	Horticultural Crops Development Authority

## Chapter One

### 1.0 Legal Policy and Institutional Framework

#### 1.1. Overview

Generally, governance can be defined as the manner in which control is exercised in the management of a country's environment, social and economic resources for development. Governance involves not only governments but also civil society and other actors observing laws, regulations, frameworks, systems and processes that shape the way government operates. Kenya has many institutions involved in the management of the environment. They range from government departments, Non-Governmental Organizations, private sector, associations, Community Based Organization and others. With that range of institutions there is bound to be operational conflicts and duplication of roles and responsibilities. Before the enactment of the Environment Coordination and Management Act (EMCA) in 1999 as an overarching framework law, environmental laws were scattered and many were out-dated. Sector specific legislation is yet to be harmonized with EMCA.

#### 1.1.2 Policy

The first time that a requirement for a comprehensive environmental policy and legislation for Kenya was mooted was through the National Environment Action Plan (NEAP) Report of 1994 which recommended that specific policy and legislation be formulated. The Sessional Paper No. 6 of 1996 on Environment and Development prepared by the Ministry of Environment and Natural Resources sought to translate the NEAP Report and reflects the recommendations of the said Report in a more focused manner.

**1.1.3 The Sessional Paper No. 6 of 1999** made the following recommendations regarding chemicals management:

- 1) A comprehensive policy, supported by an appropriate legislation governing the management of hazardous wastes to be put in place;
- 2) Hazardous waste disposal facilities and/ or sites to be created;
- 3) Training to be conducted to create a cadre of personnel capable of handling the storage, transportation and disposal of hazardous wastes;
- 4) Inventories on the types, sources, volumes and composition of hazardous wastes be created;
- 5) Private sector involvement in handling hazardous wastes be encouraged and facilitated; and
- 6) International efforts, through cooperation under relevant international legal agreements be strengthened for the management of hazardous wastes.

Hazardous chemicals were categorized into three main groups in the NEAP Report:

- 1) Wastes that are known to contain significant concentrations of highly toxic, mobile, persistent or bio-accumulative constituents;
- 2) Wastes from common industrial processes like metal hydroxide sludge, organic and inorganic solvents, toxic gases such as chlorine, sulfur and their compounds, arsenic, asbestos and nitrogen compounds;
- 3) Large volumes of low hazard waste which easily decompose and other wastes such as aluminum metal, glass wood, paper, plastics and ceramics.

## New Persistent Organic Pollutants (POPs) Wastes Falling Under Category 1

Sources of these hazardous wastes include:

- 1) ignitable or toxic chemicals such as petroleum, industrial alcohol and methylated spirit;
- 2) pest and vermin control chemicals;
- 3) food and feed related chemicals;
- 4) pharmaceutical and health related chemicals;
- 5) radioactive chemicals,
- 6) mining wastes; and
- 7) agricultural wastes.

**1.1.4 The Environmental Management and Coordination Act (EMCA, 1999)** provides for the integration of environmental concerns into national policies, plans, programs and projects. In this regard, EMCA 1999 provides for the formulation of National, Provincial and District Environment Action Plans every five years. However, the Act is under review for amendment and these district and provincial structures may be removed, but the need to operationalize this mandated at county levels still remains important

**1.1.5** As a follow-up and spearheaded by NEMA, Kenya has also formulated **The 2009-2013 NEAP Framework**, which is a broad-based Strategy that will enable the regions to attain sustainable development as envisaged in Vision 2030. It was prepared concurrently with the comprehensive **Draft Environment Policy 2008** spearheaded by the then Ministry of Environment and Mineral Resources.

Environmental Action Planning is a tool that aims at integrating environmental concerns into development planning. The EAP process was participatory, involving various stakeholders from institutions and sectors, including the public, private, NGOs and local communities at District, Provincial and National levels. The consultative meetings provided the basis for the formulation of the DEAPs, PEAPs and finally the National Environment Action Plan Framework.

The participatory approach adopted in the EAP process enhanced environmental awareness among various stakeholders including the legal fraternity, provincial administration, institutions of higher learning and Community Based Organizations (CBOs), therefore underpinning their relevance in sustainable development.

The NEAP report addresses environmental issues from various sectors in an integrated manner and their significance in development planning. It proposes a strategy for achieving sustainable development in line with Kenya's quest to meet the Millennium Development Goals (MDGs, now called SDGs), Vision 2030 and the Medium Term Plan (MTP). The report has brought out a number of proposed interventions, legal and institutional framework to be incorporated into sectoral development plans and programs. Its implementation will be monitored through the Annual State of the Environment reporting.

**1.1.6** Since the NIP was put in place, the abovementioned **Draft National Environmental Policy, 2008** is in the process of being finalized. It builds on the Sessional Paper No. 6 of 1999 by extending its scope and filling the gaps and aligning the text to the aspirations of the Millennium Development (MDGs) and Kenya's Vision, 2030. It addresses new emerging environmental issues and challenges

and provides additional policy and economic instruments and lays the basis for sustainable development in all areas of human activity and promotes the implementation of vital laws like the Environment management and Coordination Act (EMCA). It also addresses key areas of concern and chemicals management more particularly and comprehensively than the NEAP which was used to enact EMCA (NB: there is a Bill to amend EMCA but until it is enacted, the *status quo* remains). Briefly, it:

- 1) Covers a wider scope of environmental issues and e.g. sustainable production and consumption and covers the aspirations of MDGs and Vision 2030;
- 2) Captures the linkages between people, economic growth and environmental sustainability;
- 3) Objectives (5) are better focused for achieving integration, effective coordination and management, enhanced collaboration, synergy, partnerships and participation in environmental conservation;
- 4) Better drafted and user friendly, policy statements few, clear, realistic and achievable – Stockholm Convention compliant;
- 5) Clear guiding principles, including inter- and intra-generational equity and environmental good governance;
- 6) Covers Institutional and Legal arrangements (under environmental governance), offers better integration of policy statements;
- 7) Provides linkages with other sectors and clear mechanisms for mainstreaming environment into other sectoral policies e.g. youth, gender;
- 8) On stakeholders, it attempts to define the roles and responsibilities of the umbrella Ministry and other key Stakeholders;
- 9) Recognizes EMCA and its institutions (NEC, NET, PCC, NEAPC, PECs and DEC) and clarifies their roles, recommending their strengthening;
- 10) And underscores the importance of environmental governance, capacity building and funding mechanisms.
- 11) Proposes various tools for realization of the letter and spirit of EMCA;
- 12) Recommends the strengthening of the Directorate of Environment (under the Ministry), creation of a Natural Resource Accounting system (NRA) and the institutionalization of Strategic Environment Assessment (SEAs) procedures;
- 13) Addresses a wide range of emerging environmental issues e.g. climate change and disaster management;
- 14) Proposes establishment of scientific environmental information and monitoring framework;

- 15) Emphasizes importance of environmental education and public awareness creation/participation as key to sustainable implementation of environmental policy;

**NB:** When implemented, it will comprehensively address environmental policy shortcomings and be used for the formulation of better environmental management, planning and governance instruments, towards the realization of Kenya's development goals e.g. Vision 2030 and SDGs. It is strongly recommended that it be finalized and enacted.

**New POPs. Due to drastic changes in its national circumstances – new constitutional dispensation, effectively changing the implementation infrastructure and institutional arrangements, Kenya has not complied with its obligations on reporting under Articles 7 and 15, also due to lack of technical, legal and expertise, and some MEAs having not been domesticated. Therefore, new POPs have not been specifically addressed in the regulatory framework and are managed together with the old POPs within the existing legal regime. An inventory of new POPs has however been conducted, although not yet complete.**

**1.1.7 Other sectoral and trade policies** address chemicals management and sound environmental management generally. Some of these are: water policy, integrated waste management policy, e-waste policy and air quality, National Agriculture development Policy, 2010-2020, Mining Policy, 2012, Strategy for Revitalizing Agriculture (SRA), Agriculture sector development Strategy (ASDS), *inter alia*.

**New policies in the Agriculture sector:** From 2010, 15 policies and 6 new legislations have been developed and are being implemented. Among these are the Seed Policy, the Food security and Nutrition Policy, the Cotton Act, 2006 and the Cooperatives Policy. This success is attributable to restructuring ministries by creating directorates and units that are coordinating development of policy.

**Recommendation:** This should be replicated in other sectors. The private sector are the implementers of chemicals regulations, hence should be closely involved in all regulatory steps.

#### **1.1.7.1 Trade, Industry and Services Sector**

Trade, industry and services play a vital role in the country's economy. Kenya being an open market economy, imports and exports goods and services from both developed and developing countries. The expanding regionalization demands an integration of regional economic blocks mainly, COMESA (Common Markets for East and Southern Africa) and East African Community (EAC) which has led to an increased momentum of growth of imports and exports of goods and services in the country, including regulated chemicals, some of them Persistent Organic Pollutants. Industries, trade and services will benefit by adopting environmental management systems that not only address production processes but also promote waste minimization, treatment and disposal.

Kenya's general policy objective encourages a more open regime, strengthening, increasing market access and integrating Kenya into the world economy. Kenya's domestic and international trade is agro-based goods and other products from the industrial and manufacturing sectors which involve POPs.

Involving the private and public sectors in decision making and sound chemicals management could be facilitated by:

- 1) Developing a clear framework for involvement by the private sector.
- 2) Improving the business climate, a step particularly important

- 3) Clean Development Mechanism should be encouraged.
- 4) Encouraging transfers of environmentally sound technology
- 5) Forging of genuine and strategic partnerships e.g. with COMESA, EAC, ACP and EU countries.
- 6) Promoting the public capital investment necessary in interventions like concessions feasible in water supply and other services. Government and donor support in this regard is crucial.
- 7) Changes in legislation may be needed to support new interventions but use the PPP law and domesticate all MEAs

Management of solid and liquid waste, poor planning of market centers, importation of obsolete technologies e.g. E-waste, unregulated importation of toxic and hazardous chemicals, pollution and environmental fiscal reforms are environmental issues which can thus be addressed. This will result in the enhancement of: Management of solid and liquid waste from trade, Clean Development Mechanism (CDM), Enforcement of the urban by-laws and other relevant legislations, Enforcement of standards, Compliance to EIA/EA regulations 2003, Regulation and management of toxic and hazardous chemicals and application of economic instruments (incentives and disincentives) in trade and use of environmental friendly technologies. Policy and regulations on e-waste need to be finalized. But various companies like Safaricom, WEEE Center are handling-waste.

#### **1.1.7.2 Industrial Sector**

Kenya's industrial sector is one of the largest in sub Saharan Africa and accounts for 13% of the the gross domestic product. Manufacturing currently employs approximately 13% of total formal employment. Small-scale manufacturers constitute the informal side of the industry. The sector is highly fragmented. Kenya aspires to be fully industrialized by year 2030, opening up job opportunities and value addition to agricultural produce and natural mineral resources for export and local consumption.

This trend of development is expected to initiate industrial enterprises, which would in turn result in increased quantities and complexity of pollutants, including POPs. In order to reap the full benefits of this mode of economic development while conserving the environment, there is need to plan and develop the associated infrastructure to handle increased effluents and wastes. Some of the environmental challenges facing the industry include; generation and management of solid, liquid and hazardous waste and e-waste; gaseous emissions, occupational health and safety, adoption of Cleaner production technologies and compliance with EIA/EA, Waste and Water regulations.

The sector faces environmental issues on solid and liquid waste management, importation of obsolete technologies, unregulated importation of toxic and hazardous chemicals, air and noise pollution, inappropriate technology in energy production, compliance with occupational, health and safety measures, EIA/EA, poor planning in respect to industrial and residential areas and fragmented and unenforced licensing procedures. The Kenya Industrial Research Development Institute plays an important role in this sector and its profile should be enhanced to better address the POPs agenda.

The challenges in this sector still remain almost the same, namely:

- 1) Management of solid and liquid waste
- 2) Enforcement of standardized technologies
- 3) Regulation and management of toxic and hazardous chemicals
- 4) Control of noise and air pollution

- 5) ☒Adoption of cleaner production technologies
- 6) ☒Compliance to EMCA, 1999, relevant legislations, rules and policies
- 7) Institutional constraints, incapacity and duplication of roles and mandate

#### Proposed Interventions

- 1) ☒Enhance use of cleaner production systems
- 2) ☒Enforce and implement standardized technologies
- 3) ☒Finalize and implement regulations on toxic and hazardous chemicals
- 4) ☒Finalize and implement regulation on noise pollution
- 5) ☒Enforce relevant policies and legislation including the Physical Planning Act 1997
- 6) ☒Develop a one stop shop for all licenses

### 1.1.7.3 Mining Sector

It is important in the Kenyan economy. A minerals and mining policy was developed in 2010 to create a vibrant mining sector and to address among other issues, environmental negative effects, conservation, intergenerational equity, best practices, equitable sharing, etc. It is supported by the Mining and Minerals Act, 2013 which, in Part IX protects the environment – environmental and water rights laws to prevail, addresses site restoration and mine closure and prescribes for use of economic instruments in the form of environmental protection bonds. Part XII provides for Monitoring, Compliance and Enforcement, including powers of prosecution.

Kenya is not a major producer of synthetic chemicals. But 2009 data reveals that extensive extraction of minerals contribute to manufacturing like soda ash, fluorspar, diatomite, limestone and titanium prospects. In 2008 imports, 16.5% were for chemicals and 24.8% for oil which were mostly chemicals, fertilizers and plastics. Major chemicals were in small quantities. The transport and energy sectors use chemicals and petroleum products and generate toxic waste through service stations and garages, while the energy sector uses chemicals in power generation – fossil fuels, batteries, oil, refrigeration/metal treatment, etc.

## 2.1 Kenya's Policy on Chemicals

Since Kenya is largely an agricultural economy, its policy with regard to chemicals management focuses heavily on chemicals used in the agricultural sector. Nine (9) out of the twelve (12) POPs are in fact agriculture based.

In 1999, the East African Sub-Regional component of the Partnership for the Development of Environmental Law and Institutions in Africa Project, sponsored by UNEP, UNDP and the Dutch Government, sought to achieve regional harmonization of environmental laws. Management of toxic and hazardous wastes was one of the major tenets of this project. The publication of the proceedings of this Project clearly set out the national policy, legal framework and capacity building requirements of all of the East African countries of, Kenya, Uganda and Tanzania, Rwanda and Burundi for hazardous wastes and stockpiles in general.<sup>1</sup>

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<sup>1</sup> UNEP/UNDP/DUTCH Joint Project on Environmental Law and Institutions in Africa. "Report on the Development and Harmonization of Laws on Hazardous and Non-Hazardous Wastes", Vol. 4 and 5 Dec 1999

With the advent of several international Multilateral Environmental Agreements, Kenya's policy on toxic and hazardous wastes is moving towards developing ways of beneficial utilization of the chemicals, recycling and processing the waste chemicals to reduce their bulk. The emphasis is now on reduction of the adverse impacts on human health and the environment.

Currently, Kenya's policy on chemicals management is actualized in the form of mainstream legislation and subsidiary legislation. The framework legislation that provides for chemicals management is the Environmental Management and Co-ordination Act. Under the Act, the National Environment Management Authority has put in place The Waste Management Regulations, 2006. Other sectoral laws also prescribe for the management of POPs.

## **2.2 Policy Intervention found to be necessary in key areas (in international and domestic environmental agenda):**

**2.2.1** Formulation of a national policy on MEAs to holistically address issues of chemicals management, POPs included, supported by the requisite legal framework. It should integrate sound environmental practice and tools like green development, use of alternatives, BATs and BEPs, carbon footprints, Economic Instruments, polluter pays principle, self-help e.g. in EAs and community associations, environmental cultural solutions and practices, use of local mechanisms and structures in environmental justice and conflict resolution, conservation, monitoring and evaluation of the environment, information dissemination, etc.

**2.2.2** The development of climate change scenario and corresponding policy formulation, to address Kenya's vulnerability in agriculture and other key sectors which may also contribute to climate change, like forestry and industry – capacity in this is available under the UN-REDD Program and Forest Carbon Partnership Facility to prepare our country for REDD readiness.

## **3.1. Information Sharing**

Information is a fundamental resource upon which organization, countries and individuals depend on in managing their affairs. In the decision making process, information is required to define objectives, set targets and guides in the implementation of programs. In order to make an informed decision about policies and priorities, there is need to establish a strong, Authoritative data gathering mechanism. Reliable and comparable information will allow the organizations to develop indicators and link them to other critical issues such as health and poverty. The implementation of environmental education and dissemination of environmental information is fundamental to enhancing public involvement and participation in environmental management that leads to change in behavior resulting to responsible living and interaction with the environment.

Environmental information and networking technology has generally not received high attention and priority for many decades as compared to other sectors. Lack of capacity, poor coordination and linkages, documentation, are key issues affecting environmental information and networking at community, civil society, private sectors, learning institution, government institutions and international levels. The update exercise revealed that the current NIP has been a victim of this lack of dissemination to the target users, including key stakeholders, hence implementation was hampered. There is need to develop a framework to support country-level integrated



environmental assessments and reporting at all levels and to strengthen links between researchers, communities and policy makers for information flow and advocacy.

Reign in the private sector by strengthening its participation in environmental management, enhancing its education and awareness on existing environmental regulations, encouraging information sharing and providing incentives like economic instruments , which will in turn strengthen its participation in enforcement of sector environmental regulations e.g. in sound waste management, proper use of pesticides, use of alternative energy, green development , appropriate technology , carbon footprints, etc. which will result in a more sustainable use of our environment.

## CHAPTER 2 LEGISLATIVE, INSTITUTIONAL, POLICY MANAGEMENT AND REGULATORY FRAMEWORK IN KENYA

### 2.0 National Profile Defining the Legal Framework Relating to POPs in Kenya

As earlier noted, Kenya's policy on management of POPs is scattered over several statutes which deal with chemicals management directly or indirectly.

The Constitution of Kenya has now provided for environmental rights as a basic right in Articles 42, 69 and 70. The need for the hitherto *locus standi* to enforce environmental rights has been removed but the Constitution has not prescribed obligations on citizens in environmental management.

The Environment Management Coordination Act devolves administration of a number of environmental and natural resources management issues to communities through District and Provincial Environment Committees. Equitable distribution of costs and benefits of devolved natural resource governance is enhanced in all new policy and legal reforms. The new Constitutional dispensation requires that all governance structures should include at least 30% women.

It is recognized that Kenya has over time built considerable technical capacities in various disciplines. These capacities are found within specialized departments of government, state corporations, private sector research and learning institutions. The country may also access capacities from international research institutions and regional development organizations. It is expected that the implementation of updated National Implementation Plan will seek technical support from these sources.

**Compliance Issues e.g. for DDT** – Exemption applied for in 1986 – DDT for control of mosquitoes, but Kenya needs to reapply for exemption for this updated NIP.

### 2.1 Key Institutions in Chemicals Management are:

#### Government Ministries

Ministry of Environment Water and Natural Resources (MEWNR) – responsible for the environment agenda in Kenya and focal point for implementation of the NIP under the Stockholm Convention, Ministry of Agriculture, Livestock Development and Fisheries, Ministry of Industrialization & Enterprise Development

#### Government Agencies

Pesticides Control and Produce Board (PCPB), National Environment and Coordination Act, Pesticides Control and Produce Board, Ministry of Agriculture, Livestock Development and Fisheries, Ken-Invest, Government Chemist, Public Complaints Committee (PCC), Lake Basin Development Board, Pyrethrum Board of Kenya, SERC, NETFUND (National Environment Trust Fund), NET(National Environment Tribunal), Kenya National Council for Science Technology and

Innovations, Kenya National Oil Corporation, Horticultural Crops Development Authority (HCDA) , Kenya Seed Company,

### **Research and Testing**

KIRDI (research training and awareness creation), University of Nairobi and other universities, like Maseno, JKUAT, Kenyatta, National Council for Science Technology and Innovations, Government Chemist, Tea Research Foundation, Coffee Research Foundation, Institute of Nuclear Research, Kenya Agricultural Research Institute (KARI), KEMRI, KEMFRI, LVEMP(Lake Victoria Environment Management Programme), KEPHIS, Ministry of Health, Kenya Seed Company, KIRDI

### **Farmers Organizations**

Kenya Seed Company, Kenya Planters Cooperative Union (KPCU), Coffee Board of Kenya (CBK), Kenya Farmers Association

### **Business related**

KAM (Kenya Association of Manufacturers), Kenya Canners Limited, Kenya Breweries Limited, WEEE Center, Compliance -- Kitengela, Environment& Combustion Consultants Ltd. – Kitengela, Devki Rolling Mills, SGS

### **International/Regional Organizations**

ICRAF, ICIPE, UNDP, UNEP, IOMC (Inter-Organization Programme for the Sound Management of Chemicals) SAICM, Multilateral Environment Agreements secretariats, UNIDO, UNITAR, POPRC (Persistent Organic Pollutants Review Committee),

Key challenges on governance, legal framework and institutional arrangements and policies still remain as:

- 1) Lack of policy and/or laws in key areas of interest e.g. no uniform law on POPs
- 2) Most MEAs, Stockholm Convention included, still not domesticated
- 3) Inadequate capacity to interpret and enforce environmental legislations
- 4) Multiplicity of institutions with the POPs mandate
- 5) Lack of information sharing
- 6) Inadequate capacity generally to promote sustainable utilization of natural resources
- 7) Conflict of environmental legislations and institutional mandates
- 8) Undefined pre-existing ownership rights and utilization of natural resources
- 9) Non-use of incentives to strengthen compliance for environmental management
- 10) Over reliance on elaborate and lengthy court systems and formal institution in deliberating environmental cases and inadequate capacity to domesticate MEAs
- 11) Inadequate capacity to interpret and enforce environmental legislations e.g. on POPs
- 12) Lack of harmonization of environmental legislations and institutional mandates
- 13) Ignoring the incorporation of community pre-existing rights in natural resource utilization
- 14) Reluctance to pay for ecosystem services and goods - conflict of conservation versus degradation
- 15) Unavailability of court systems at grassroots levels e.g. village councils and local environmental courts towards speedier environmental justice

- 16) Minimum devolved funds for environment management
- 17) Enforceable of environmental legal regime e.g. laws, regulations, standards, etc
- 18) Few synergies in institutional partnership
- 19) Lack of participatory, consultative and community inclusive environmental management
- 20) Lack of harmony and/or review of national, sectoral and trans-boundary environmental laws – Incorporate trans-boundary environmental management into existing environmental laws
- 21) Non- use of incentives to promote compliance e.g. Economic Instruments
- 22) Enhance enforcement of EMCA, 1999 and other legislations for natural resource utilization
- 23) Ecosystem goods and services not evaluated. Economic Planning does not consider environmental costs and concerns

## 1.1 Legal Framework

Apart from the *Environmental Management and Co-ordination Act – EMCA* - which is a framework law, most of the statutes are sectoral. **The current regime re POPs includes:**

### 1.1.1 The Public Health Act (Cap 242 Laws of Kenya)

It has been observed that one source of POPs is pharmaceutical and health-related chemicals. The objective of this Act is to provide for measures to secure and maintain the health of the public. The relevant provisions with regard to POPs and chemicals management in general are in Part IX of the Act. Section 115 of the Act prohibits any person from causing a nuisance or from keeping in their premises any nuisance or condition which may be injurious to human health. POPs as well as other chemicals are captured within the ambit of this section.

Section 118 of the Act provides that:

“The following shall be deemed to be nuisances liable to be dealt with in the manner provided in this part-

(e) any noxious matter or waste matter, flowing or discharged from any premises wherever situated, into any public street,, or into the gutter or side channel of any street or into any nullah or water course, irrigation channel or bed thereof not approved for the reception of such discharge.

(h) any accumulation or deposit of refuse, offal manure or other matter whatsoever which is offensive or which is injurious or dangerous to health

(o) any factory or trade premises causing or giving rise to smells or effluvia which are offensive or which are injurious or dangerous to health; and

(s) any act, omission or thing, which is or may be dangerous to life or injurious to health.

The role of the Act is limited to management of chemicals in so far as these chemicals affect public health.

### **1.1.2. Pharmacy and Poisons Act (Cap 244 Laws of Kenya)**

The purpose of this **Act** is to make better provision for the control of the pharmacy profession and the trade in drugs and poisons. These pharmaceuticals can be a source of POPs thus aligning the purposes of the Act to the **Stockholm Convention**.

The Act focuses on the control of pharmacies and protection of the public from poisoning. The Pharmacy and Poisons Board regulates this industry primarily through registration procedures.

Clear rules and regulations are set out with regard to possession, importation, exportation and local trade of drugs and poisons, advertising, labeling and maintenance of books of account. The pharmaceutical drugs and poisons are listed and classified in the appendixes to the Act and are treated either as poisonous or non-poisonous. Some of these are to be sold only on prescription, while some of the poisons in concoctions are to be present in prescribed portions.

### **1.1.3. The Malaria Control Act (Cap 246 Laws of Kenya), 2013**

This **Act** does not provide for chemical management specifically, its role being important in so far as malaria prevention may involve the use particularly of DDT, which falls within the ambit of the **Stockholm Convention**, under Annex B which requires restriction of its use only for purposes of disease-vector-control. The **Convention** sets out registration requirements prior to its use by any Party to the **Convention**.

### **1.1.4 Food, Drugs and Chemical Substances Act (Cap 254 Laws of Kenya)**

This Act is intended to prevent the adulteration of food, drugs and chemical substances. POPs are covered by this Act as they may fall within the definition of chemical substances. In addition, another source of POPs has been cited as food and feed related chemicals. A chemical substance is defined as "...any substance or mixture of substances prepared, sold or represented for use as a germicide, antiseptic, disinfectant, pesticide, insecticide, rodenticide, vermicide or a detergent".

### **1.1.5 Devolved Government Act (Cap 265 Laws of Kenya), 2013**

This Act deals with the establishment of Local Authorities and defines their functions, powers and operations. The local authorities have powers of control within their jurisdictions. With regard to chemicals management they have powers as set out at section 162(a):

*“to compel occupiers or, in the case of vacant premises, owners, to keep their premises free from offensive or wholesome matter”*

Section 163 (e) further empowers local authorities to:

*“control or prohibit all businesses, factories and workshops which, by reason of smoke, fumes, chemicals, gases, dust, smell, noise, vibration or other cause, may be or become a source of danger, discomfort or annoyance to the neighbourhood, and to prescribe the conditions subject to which such businesses, factories and workshops shall be carried on”*

These provisions may be enforced to cover many of the source categories of POPs placing them under the jurisdiction of the **Local Government Act**.

Through these powers the Local Authorities can impose, control and manage POPs within their jurisdiction. In addition by-laws can be developed to facilitate implementation of laws that may deal specifically with POPs. The County Authorities are pivotal agents in this regard as they are able to reach communities at the grass roots, various stakeholders and the public at large.

#### **1.1.6 Fertilizers and Animal Foodstuffs Act (Cap 345 Laws of Kenya)**

The objective of the **Act** is to regulate the importation, manufacture and sale of agricultural fertilizers and animal foodstuffs and substances of animal origin intended for the manufacture of such fertilizers and foodstuffs.

Chemical management is reflected in the Minister’s powers to make rules for the due implementation of the Act. A series of rules and regulations have been promulgated in this regard; The Fertilizers and Animal Foodstuffs (Approved Fertilizers) Rules, which for instance specify substances or a mix of substances, for use as fertilizers. These substances are chemicals that may contain POPs which degenerate to have POP like characteristics thus putting them within the realm of the Stockholm Convention.

#### **1.1.7 Cattle Cleansing Act (Cap 350 Laws of Kenya)**

This **Act** is relevant to chemicals management in so far as acaricides are concerned, which are the primary tick treatment chemicals used in animal husbandry.

The **Act** controls the content, preparation and application of the tick destroying agents. Alternatives to arsenious oxide are given such as benzene hexachloride and chlorinated camphene in specific portions.

#### **1.1.8 The Factories and Other Places of Work Act Cap 514 Laws of Kenya**

The objective of the **Act**, as set out in its preamble, is to provide for the health, safety and welfare of persons employed in factories and other places.

The role of the **Act** with regard to chemicals management is in the protection of human health in the work place. Section 51 of the **Act** provides that:

*“In every factory in which, in connection with any process carried on, there is given off any dust or fume or other impurity of such character and to such extent as to be likely to be injurious or offensive to the persons employed, or any substantial quantity of dust of any kind, all practicable measures, shall be taken to protect the persons employed against inhalation of the dust or fume or other impurity and to prevent its accumulation in any workroom...”*

This provision seeks to regulate the quality of media often utilized by POPs as transport agents.

In addition, the Minister is empowered under Section 55 to make rules necessary and reasonably practicable to reduce the offensiveness of any process, within a factory. This may involve assessment of the effectiveness of the production processes or pollution control devices, or compliance of waste disposal mechanisms to standards and guidelines. The role of this **Act** in the management of POPs is perhaps felt most in industries that produce or use POPs even in closed-system-site (limited processes).

#### **1.1.9 Water Act No. 8 of 2002**

The **Act** plays a unique role in the protection of water bodies and resources. Like **EMCA**, the **Act** adopts a supervisory and precautionary approach. The provisions of **the Act** that contribute to the control of POPs are the permit requirements provided for under section 25 (1) namely:

*“A permit shall be required for any of the following purposes: -*

*(c) the discharge of a pollutant into any water resource”*

The **Water Act** criminalizes pollution of all sorts and Section 94(1) (b) provides that:

*“No person shall, without authority under this Act-*

*(b) Throw or convey, or cause or permit to be thrown or conveyed, any rubbish, dirt, refuse, effluent, trade waste or other offensive or unwholesome matter or thing into or near to any water resource in such manner as to cause, or be likely to cause, pollution of the water resource.”*

*(2) A person who contravenes this section shall be guilty of an offence”*

The current water standards do not include POPs. The usefulness of such inclusion will be determined by the specific source categories.

The **Act** also provides for the remedy for contravention of the obligations under the **Act**. Section 96 of the **Act** empowers the Authority to serve on a person concerned an order requiring him to clean up any pollution or make good any other detriment identified in the order, which was caused to any water resource by reason of the contravention. Thus discharge to the water media will be assessed and monitored in order for such an order to issue and be enforced.

The permits issued under the **Act** can be subjected to conditions imposed in accordance with section 30 of the **Act**. These conditions are set out in the Second Schedule of the **Act**. Rules prescribed under the Act may also impose conditions attendant to the permit.

The conclusion is that the **statutes** discussed above generally deal with chemicals in terms of pollution, import, export and protection of persons from their harmful effects. These laws are not entirely effective with regard to POPs management, as the chemicals that fall within the ambit of their control were not classified with reference to characteristics of POPs. Further, at the time of their enactment emphasis was not placed on the preservation and management of the environment. They cannot therefore in themselves form an adequate legislative framework for chemicals management generally and in particular the management of POPs.

These shortcomings, however, are being addressed in subsequent legislation particularly the **Environment Management and Coordination Act No. 8 of 1999**, as well as the draft regulations on chemicals. However, **EMCA** does not fully provide a comprehensive legal framework to



manage POPs. *EMCA* contains framework provisions for the management of toxic and hazardous chemicals and calls for the development of regulations to provide for specific chemicals. It is envisaged that these regulations on toxic and hazardous chemicals will seal some of ambiguities within the *Act*.

Some statutes that can be seen to deal most directly with POPs management are:

The ***Pest Control Products Act*** (Cap 346), The ***Environmental Management and Coordination Act*** (Act No 8 of 1999), The ***Energy Act*** and the Industrialization Policy.

#### **1.1.10 The Pest Control Products Act (Cap 346, Laws of Kenya) – currently being reviewed**

The ***Pest Control Products Act*** was enacted to regulate the importation, exportation, manufacture, distribution and use of products that control pests and organic functions of plants and animals and for related purposes.

The ***Act*** adopts a prohibitory approach in regulations, as is illustrated in its key provisions:-

Section 3(1) of the ***Act*** prohibits persons from manufacturing, packing, storing, displaying, distributing, using or advertising any pest control product except in accordance with the regulations made under the *Act*.

Section 4(1) provides that no person shall import into Kenya any pest control product unless that product has been registered, packaged and labeled in accordance with the regulations made under the *Act* and conforms to the standards specified in those regulations. Exportation and re-exportation is also prohibited in the same manner (Section 4(2)). POPs by their nature of toxicity fall under this category.

The Pest Control Products Board is established under section 5 to enforce the provisions of the ***Act***. The Board's functions include assessment and evaluation of pest control products and registration of the same. It takes into consideration both local and international regulatory regime of the substances.

Some of the regulations promulgated under the *Act* include:

1. The Pest Control Products (Licensing of Premises) Regulations L.N. 145/1984

2. The Pest Control Products (Labeling, Advertising and Packaging) Regulations L.N. 89/1984
3. The Pest Control Products (Registration) Regulations - L.N No 46/1984, and
4. The Pest Control Products (Importation and Exportation) Regulations – L.N No 146/1984

The Pest Control Products Board has to-date banned 7 out of 12 intentionally produced POPs and restricted the use of DDT in Kenya. Since the current NIP, it has also put in place the following additional Regulations:

The ***Pests Control Products Act*** does, however, have significant shortfalls and requires amendments. Some of the suggestions that have been put forward in order to align the provisions of the Act with the ***Stockholm Convention*** include:

- **Banning or restricting the production and use of pesticides where:**
  - (a) A pesticide is dangerous to the human life and environment.
  - (b) It is necessary to implement the provisions of international treaties agreement or Convention to which Kenya is a party.
- **Banning or restricting the importation of a pesticide into the country where:**
  - (a) (a) Above
  - (b) (b) Above
  - (c) It has been banned or restricted in the country of origin
  - (d) Kenya is not in position to dispose of the pesticide in an environmentally sound manner
  - (e) Where there is no prior notification of the intended import
- **Provide for exemptions for the above, which exemptions could include:**
  - (a) Laboratory-scale research;
  - (b) Reference standards;
  - (c) Unintentional trace contaminants in products and articles;

- (d) Constituents of articles manufactured or already in use before or on the date of commencement of such regulations.

➤ **Incentives to the use of alternatives to the banned/restricted pesticides**

- (a) Regulate disposal sites for pesticides wastes. This will include adherence to EMCA's provision on licenses and environmental impact assessments (EIAs);
- (b) Regulation of transportation of pesticides within the requirements of the Convention;
- (c) Regulation of the disposal of pesticide derived from waste itself.

**1.1.11 The Environment Management and Coordination Act, No. 8 of 1999** – currently being reviewed

The *Environmental Management and Coordination Act of 1999 (EMCA)* establishes a legal framework for the management of pesticides, toxic and hazardous chemicals. *EMCA* allows for the promulgation of future legislation by way of development of specific regulations. The Act also adopts the preferred, precautionary principle<sup>2</sup> as opposed to prohibitory mechanisms adopted in the Pest Control Products Act. EMCA has sealed several of the shortcomings of the earlier statutes on chemicals management.

EMCA deals with a more comprehensive and wide listing of chemicals. It captures hazardous chemicals and chemical wastes from industrial processes, research, photographic processes, surface treatment of metals and wastes from the petrochemical industry, among others.

**The Standards Enforcement and Review Committee (SERC)** is charged with recommending criteria for the classification of hazardous wastes. Management of the hazardous wastes is done based on the categories developed by the Committee.

**Section 92** of the Act empowers the Minister to make regulations prescribing the management of toxic and hazardous chemicals including classification, registration, importation, exportation, packaging and advertising among others.

**Section 93 is the protective provision of the environment. It regulates and in some instances prohibits the discharge of hazardous substances, chemicals and materials or oil into the**

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<sup>2</sup> The precautionary principle states that where there are threats of damage to the environment, whether serious or irreversible, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation.

**environment. Owners or operators of any facility or equipment that occasions discharge contrary to the Act are responsible for the mitigation of the impact of their actions.**

Section 94 mandates the SERC to prepare standards for pesticides and toxic substances. Also in relation to pesticides and toxic substances, the Act provides for registration, storage, manufacturing, importation and exportation. Section 100 of EMCA empowers the Minister to make regulations governing registration of toxic substances. In consequence thereof, The Environmental (Toxic and Hazardous Chemicals, Pesticides and Radioactive Substances) Regulations 2004 are now in place (see elsewhere in this report)

## **2.0 EIA/EA and SEA**

**2.1** Environmental Impact Assessment (EIA) and Environmental Audits (EA) provide another control mechanism for chemicals assessment. They are effected through the environmental impact assessment procedure, which provides NEMA an opportunity to assess the potential adverse effects of projects, on the environment prior to their commencement. Through public participation, affected persons can table their views on the project. Associated risks can be managed through mitigation measures and the environment protected. The Environmental (Impact Assessment and Audit) Regulations 2003 govern the requirements for environmental assessments and audits that are undertaken by proponents of the projects prescribed in the Second Schedule of **EMCA**.

EMCA provides a framework through which concerns of stakeholders regarding the impact on the environment can be exhaustively dealt with. Complaints relating to the environment may be lodged with the Public Complaints Committee (PCC). The merits and demerits of the complaint are heard and recommendations issued by the Committee to the National Environment Council. Where parties are aggrieved with the decision of the PCC, they may appeal to the National Environment Tribunal (NET). A further appeal lies in the High Court of Kenya.

NEMA is in the process of finalizing draft regulations to regulate the use and disposal of Toxic and Hazardous Chemicals. The Regulations will provide for, *inter alia*, registration, classification, labeling, packaging, distribution, storage, transportation, importation, exportation and final disposal of toxic and hazardous chemicals and pesticides. Some Regulation are;

- 1) The Environment (Toxic and Hazardous Chemicals, Pesticides and Radioactive Substances) Regulations, 2004
- 2) Air Quality Regulations – remaining to be gazetted

- 3) Water Quality Regulations, 2006
- 4) Waste Management Regulations, 2006
- 5) The Environment Management and Co-ordination (Controlled Substances) Regulations, 2007
- 6) E-Waste Regulations

### **2.1.2 SEA**

Strategic Environmental Assessment is a tool for assessing projects for their impacts on the environment. SEA Guidelines are currently in place and SEA was carried out for both the LAPPSET and Konza City projects.

### **3.0 The National Implementation Plan and Updated NIP under the Stockholm Convention**

Kenya has developed its National Implementation Plan (NIP) towards the implementation of this Convention and is in the process of updating the same in compliance with Article 7 thereof. Kenya may wish to follow, and amend as appropriate to its national circumstances, the step-wise process presented in the *Stockholm Convention* guidance document. It covers the following five main groups of activities as summarized below:

#### **3.1.1 Determination of coordinating mechanisms and organization of process**

##### ***Identification of the focal point***

The National Environment Management Authority (NEMA) has been identified as the Focal Point in the implementation of the *Stockholm Convention*

##### ***Establishment of a multi-stakeholder coordinating committee***

A multi-stakeholder national coordinating committee based on a stakeholder analysis. Stakeholders include persons in the sectors of environment, agriculture, industry, import and export, public health, trade and transport.

Identification and assignment of responsibilities among the relevant government departments and other stakeholders for the various aspects of POPs management.

#### **3.1.2 Establishment of POPs inventory and assessment of national infrastructure and capacity**

Since the 1<sup>st</sup> NIP, a Kenya National Profile to assess the national infrastructure for chemicals, and their waste, management in Kenya is in place. It was finalized in 2010, under the auspices of the University of Nairobi Enterprises, under the guidance of UNITAR and the establishment of a register

(Pollutant Release and Transfer Register, or equivalent), which will create and maintain a reliable inventory on POPs. **The NCP contained the following:**

- 1) Preliminary inventory of production, distribution, use, import and export;
- 2) Preliminary inventory of stocks and contaminated sites and products; assessment of opportunities for disposal of obsolete stocks;
- 3) Preliminary inventory of releases to the environment;
- 4) Assessment of infrastructure capacity and institutions to manage POPs, including regulatory controls, and chemical analytical reference laboratories, needs and options for strengthening them;
- 5) Assessment of enforcement capacity to ensure compliance;
- 6) Assessment of social and economic implications of POPs use and reduction, including the need for the enhancement of local commercial infrastructure for distributing benign alternative technologies/products;
- 7) Assessment of monitoring and research and development, and chemical analytical capacity; and
- 8) Identification of POPs-related human health and environmental issues of concern; basic risk assessment as a basis for prioritization of further action taking into account, *inter alia*, potential releases to the environment and size of exposed population.

**Comment:** the process of the NCP resulted in a fairly comprehensive and systematic consultation and documentation of the **Institutional, Legal and Socio-economic analysis of chemicals infrastructure, management and identification of gaps and weaknesses of that infrastructure.**

Some of the priority concerns of the NCP included the existing **Legal, Institutional, Administrative, and Technical constraints.**

It also addressed relevant Stakeholders. Regarding Institutional concerns, the NCP's major expectations were that it would lead to improved coordination of Kenyan institutions – Government and NGOs) involved in chemicals management towards better implementation of Action Plans, Formulation of policy and Legal framework formulation.

### **3.1.3 Setting of priorities and determination of objectives**

- 1) Development of criteria for prioritization, taking into account health, environmental, and socio-economic impact and the availability of alternative solutions; and
- 2) Determination of national objectives in relation to priority POPs or issues.

### **3.1.4 Formulation and updating of the National Implementation Plan, and specific Action Plans on POPs**

- 1) Identification of management options, including phasing out and risk reduction options;
- 2) Determination of the need for the introduction of technologies, including technology transfer and possibilities of developing indigenous alternatives;
- 3) Assessment of the costs and benefits of management options;
- 4) Development of a national strategy for information exchange, education, communication and awareness raising, taking into account risk perception of POPs by the public;
- 5) Preparation of a NIP that includes priorities and proposed sequencing of implementation, estimated total cost of proposed activities, including incremental costs where applicable; and
- 6) The drafting of regulations under EMCA on management of wastes and chemicals, the regulations are expected to be specific on management of these chemicals. The other non-regulatory measures mentioned can be undertaken as collaboration between all the relevant stakeholders. In addition, the use of BATs and BEPs in the management of UPOPs should be promoted.

#### **3.1.5 Endorsement of NIP by Stakeholders**

- 1) Submission of an updated draft NIP to stakeholders for comments through workshops, dissemination of information, etc, to obtain the commitment of stakeholders, including decision-makers, to implement the NIP; and
- 2) Finalization of the updated NIP and its submission to the Depository as per Article 7 of the Convention

### **3.2 Implementation of the Special Obligations of the Convention**

In addition to the preparation of a National Implementation Plan, the Stockholm Convention enumerates several other specific Party obligations to be fulfilled. These are summarized below:

#### **3.2.1 Intentionally Produced POPs – Article 3**

- 1) So far in Kenya, between 1986 and 2004, the Pest Control Products Board has banned the importation of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Hexachlorobenzene (HCB) and Toxaphene. Between 2001 and early 2004, records from the PCPB indicate that no Stockholm POPs were imported into the country. In Kenya, PCB is found in electrical transformers and capacitors. After 1985, use of PCBs in the manufacture of these types of equipment was banned. Transformers and capacitors manufactured after 1985 no longer contain PCBs. Disposal of outdated electrical

transformers and capacitors is an issue that the Government of Kenya needs to resolve as identified by the POPs inventory.

- 2) DDT was restricted in 1986 for use for mosquito control in mosquito breeding grounds and was banned for agriculture use in the same year. DDT has not been imported in Kenya since 1986.

### **3.2.2 Unintentionally Produced POPs – Article 5**

The goal of the Convention is to minimize, and where feasible, ultimately eliminate total releases of chemicals in Annex C derived from anthropogenic sources. The chemicals are Dioxins, Furans, HCBs and PCBs.

Kenya must develop action plans regarding the management of these chemicals. The plans should:

- (a) Evaluate current and projected releases
- (b) Develop strategies to reduce releases
- (c) Develop a schedule for implementation of the action plan
- (d) Evaluate the efficacy of the country's laws and policies to manage releases

The Kenya National POPs inventory 2005 identifies the major sources of UPOPs in Kenya as:

Incineration of medical waste, biomass and municipal waste burning, pulp and paper production processes and fossil fuel burning. In addition, it has recommended measures to be taken to reduce the release of UPOPs in the country. These measures include:

- 1) Training of personnel and upgrading incinerators used for disposing medical waste;
- 2) Increase in awareness programs on proper waste handling;
- 3) Development of standards for fossil fuel combustion;
- 4) Reviewing and enforcement of regulations relating to pulp production, handling of wastes and management of disposal sites

### **3.2.3 POPs in Stockpiles and Wastes – Article 6**

The draft national inventory on POPs establishes that there are significant stocks and wastes requiring urgent attention. It proposes the following towards securing sites contaminated with wastes:



- 1) Transportation of such wastes to secure locations;
- 2) Decontamination of sites having contaminated wastes;
- 3) Destruction of POPs stocks and launching of public awareness programs

The Environmental (Toxic and Hazardous Chemicals, Pesticides & Radioactive Substances) Regulations 2004 address this agenda. It provides for the Classification (Article 3), Registration (Article 4), Labeling and Packaging (Articles 5 and 6), Imports and Exports (Article 8) Distribution and Transportation and Disposal of these chemicals and substances. It is important to note that Article 29 provides that “Chemicals, pesticides and radioactive substances under multilateral agreements shall be controlled as per the provisions of the agreement as ratified” Schedule 1C Part 1 of the regulations lists banned Pesticides and Part II, restricted pesticides. Schedule I D enumerates toxic and hazardous wastes.

### **3.2.4 General Obligations**

General provisions contained in the Convention include Party obligations to:

- 1) Report to the Conference of the Parties on measures taken to implement the Convention;
- 2) Facilitate and undertake information exchange on POPs including the establishment of a national focal point for this purpose. This has been done – the MEWNR is the national focal point;
- 3) Facilitate and promote awareness, education, and the provision of information to the public, particularly for decision-makers and affected groups and
- 4) Encourage and undertake research, development and monitoring of POPs and their alternatives, and to support international efforts along these lines. **A special chemical unit could be established in Kenya to ease the co-ordination of research, development and monitoring of POPs in the country.**

## **4.0 Other concrete steps in addressing the chemicals management obligations, POPs included.**

### **4.1. STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT (SAICM)**

**4.1.1 Kenya has been active in implementing SAICM:** Hosting the 8<sup>th</sup> Meeting of the COP/MOP of the **Basel Convention** in 2006, and taken a number of initiatives to implement SAICM: The **Basel Convention** Center for Capacity Building and Technology transfer together with the Swedish Chemicals Agency (KEMI) have developed a regional capacity assessment project for capacity assessment to assist Kenya and other members covered by the BCRC to implement SAICM at global, regional and national level.

**4.1.2 The linking of its SAICM Concrete activities a National program framework** for sound chemicals management, supporting collaborating institutions in the public and private sectors

- 4.1.3 Inter-ministerial Commissions and coordinating mechanism for SAICM** have been established – with the consensus that projects for SAICM implementation should include capacity building initiatives towards enhancing multi-sectoral and multi stakeholder approach at the national level, involving all ministries, business and industry and public interest and labor organizations. The key drivers will be the National Chemicals Policy committee as the national governance framework for chemicals management, a systematic approach to national priorities, Implementing SAICM Kenya Quick Start Project, Partnership projects on data monitoring and updating action plans on chemicals. The national Environment Council (NEC) should be more active in this exercise
- 4.1.4 Capacity building** and provision and dissemination of chemical information especially in and by MEW&NR, PCPB and NEMA and other key institutions
- 4.1.5 A technical infrastructure** will be established. Based on the existing National Toxic Chemicals committee and thematic task forces, a coordinating forum will be set up. The NTC committee needs facilitation to be more effective in coordinating sectoral activities and policies
- 4.1.6 Addressing** priority concerns like encouraging **institutions to go digital in data storage**, prepare and disseminate more materials on toxic chemicals, detailing risks in handling chemicals, and applicable reduction approaches
- 4.1.7 Kenya is also working on putting in place more surveillance measures and analytical capacity** to fully implement controls of illegal trans-boundary traffic of controlled chemicals as well as investigating chemical-related accidents
- 4.1.8 Kenya is endeavoring to complete its inventory of wastes**, hence full monitoring of waste and reduction efforts is still not comprehensive
- 4.1.9 It is also addressing the control of the entire chain covering the use, transport, storage, collection, reuse, recovery and recycling**
- 4.1.10 A critical mass of experts** to address specialized wastes like obsolete chemicals, are being developed as well as institutional capacity building in critical areas of need
- 4.1.11 Training of judicial personnel in chemicals prosecution** is in the pipeline
- 4.1.12 National sensitization fora** have been held, including on e-waste
- 4.1.13 Kenya has signed and ratified various MEAs** like **Stockholm Convention, UNFCCC, UNCCD, Ramsar, CBD, Basel, Rotterdam** and is in the process of domesticating them e.g. the MEAs draft Strategy of 2012.
- 4.1.14 A number of regulations are being formulated or are in place** including for the regulation of Ozone Depleting Substances (ODS), waste Regulations, 2006, Water Quality Regulations, Air Quality Regulations
- 4.1.15 The Kenya National Strategy on Chemicals, 2007** – The Initial Baseline Study/Needs Assessment for the Implementation of the SAICM by Kenya as an initiative to implement SAICM in Kenya

#### **4.1.16 The Draft Chemicals Management Policy (SAICM)**

### **5.0 Other Relevant Initiatives/ Programs:**

#### **5.1 The Africa Stockpiles Program (ASP)**

The objective of the ASP is to clean up and safely dispose of all obsolete pesticides from Africa and to establish preventive measures to avoid future accumulation. It aims to employ environmentally sound ways of doing so. The ASP will also catalyse the development of preventive measures and provide capacity building and institutional strengthening on important issues relating to chemicals.

The ASP complements several international legal instruments that address chemicals and hazardous material management. The *Stockholm Convention on Persistent Organic Pollutants* is one of the Conventions recognized under the ASP for purposes of determining eligibility for obtaining funding from the ASP. Kenya, upon accession to the *Stockholm Convention*, is now eligible for funding under the ASP.

**5.2 Development of a Concept Note for Choosing a Green Growth Initiative as an Option for Solid Waste Management – by Francis Kihumba** - which proposed the greening and the integrated solid management concept including, source reduction by design, re-use, recycling, waste combustion and cogeneration, land-filling + gas generation, integrated planning of land-fill and mineral extraction. It also recommended use of Economic Instruments to encourage waste minimization, amongst other initiatives

#### **5.3 The National Profile to Assess the Chemicals Manufactured in Kenya, 2010** which noted that

Kenya was in the process of establishing a policy and regulatory regime for chemicals, hence required a profile on the manner of use of its chemicals and when they become waste, are disposed of in an environmentally sound manner. The NCP assessed the national chemicals infrastructure for the management of chemicals and their waste. Priority concerns were; existing legal, institutional, administrative and technical information and relevant stakeholders. Expected outputs were: improved institutional coordination among all interest public and private sector groups in addressing action plans including phase out of POPs, lead, mercury, controlled substances like ODS, and introduction of alternatives to chemicals, and taking policy measures of risk reduction, creation of synergies for implementation...

#### **5.4 State of the Environment Reports**

These reports are produced annually under the auspices of NEMA and they enrich environmental policy.

#### **5.5 The NEAP Framework Report, 2009**

**5.6 Solid Waste Management: A Situation Analysis for Nairobi, 2010** – prepared by The University of Cape town on assignment by UNEP and the then City Council of Nairobi. A Technical document accompanying the Integrated Solid Waste Management Plan(ISWM)

**5.7. Sessional Paper No. 3 on National Land Policy** – inter alia addressed issues of tenure which contribute greatly to environmental degradation

**5.8 Kenya's Climate Change Action Plan Mitigation, 2012** – Chapter 5 addresses energy issue

**5.9. Kenya declared the year 2010 the Green Year** to encourage going green/green development and creating the green Technology Initiative and to create economic incentives e.g. the government reduced EIA fees from 0.1% of project costs to 0.05% which benefited the Turkana Wind project. Conservation behavior was encouraged – planting trees as carbon sinks and sources of bio energy in place of polluting fossil fuels, going green and carbon foot-printing - using organic and chemical free foods, walking or using cycles instead of motor vehicles, encouraging self-help and self-regulation incentives ( included in the SC NIP), e.g. environmental self audit, formulation of Policy, regulations and standards especially targeting chemicals and POPs, etc. ( on hazardous chemicals, air quality and water quality management)

**5.10** Some institutions like the KenInvest have formulated **green development guidelines** and **KAM has formulated Climate Change adaptation guidelines**

**5.11 e-Waste guidelines** were developed by NEMA in 2010 and draft e-waste regulations were finalized by end of 2012? They will compel all electronic gadget importers, including mobile operators and phone manufacturers to follow up on the life cycle of the devices from point of entry to their disposal. The PS issued a circular in June, 2013 to sensitize all the country on e-waste and the South Rift region held workshops in response thereto in July, 2013. E-waste policy also vital

**5.12 Draft National Strategy for the Coordination of the MEAs, 2011**

## CHAPTER 3 INSTITUTIONAL ARRANGEMENT

**3.1** Regarding the international regulatory regime, the following were identified as key international organizations in chemicals management, and synergies with them should be strongly encouraged: ICIPE, FAO, WHO, UNEP, UNIDO, UNDP, NEPAD, the Global Environment Facility, COMESA and the secretariats of MEAs

**3.2** In addition to the Stockholm Convention, a number of other agreements and instruments also address different aspects of the range of risks caused by hazardous chemicals over their life cycle. They also need to be implemented in the Kenya national legal framework. This updated NIP should also consider how best to integrate commitments under the MEAs into the compliance measures. This may be done through a comprehensive legal framework for chemicals. This report recommends that it will be more efficient for such a law to be developed, an integrated approach, incorporating all MEAs should be used.

**3.3.** The other significant **MEAs** also addressing chemicals management are the Rotterdam and the Basel Conventions (see elsewhere in this report). They conduct coordinated interventions e.g. CPOs.

The following are the Multi-lateral and Bilateral Environment Agreements Kenya is signatory to:

- **The Stockholm Convention** on Persistent Organic Pollutants
- SAICM
- The Global Environment Facility (GEF)
- The **Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and their Disposal**
- The **Rotterdam Convention on the Prior Informed Consent** Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
- The **Montreal Protocol** on substances that deplete the ozone layer
- The **Convention on Marine Pollution** (under NEPAD)
- The Intergovernmental Forum on Chemical Safety (IFCS)The Cartagena Protocol on Biotechnology

### 3.3 Institutional Capacity Building

#### 3.4.1 Legislative Capacity Building -Enactment of the Chemicals Control Regulations

The greatest challenge for Kenya is to develop a legislative framework that comprehensively domesticates the relevant provisions relating to POPs as set out in the Stockholm Convention and other relevant international agreements. This will most effectively be dealt with by the promulgation of subsidiary legislation

The development of regulations for the management of Ozone Depleting Substances (ODS) has now provided a precedent for the formulation of subsidiary legislation on chemicals management in Kenya. Firstly, since there is need to harmonize the legislation regulating chemical management in Kenya,

there is a corresponding need to repeal, merge or amend some provisions of the current laws in order to avoid duplication or conflict in the law.

- 1) It is suggested that chemical control legislation should be comprehensive and specific, clearly laying out requirements of handling chemicals, restrictions in the use of chemicals, direction in the manner of production, and requirement for mitigation measures where damage is occasioned or probable.

It is crucial that the legal capacity of the country be built in order to effectively manage POPs. This can only be achieved through;

- The immediate development of chemical regulations;
- Establishment of an adequately staffed chemicals unit;
- Acquisition of appropriate equipment for use in monitoring and analysis of chemicals;
- Recruitment of trained prosecutors and customs officials well inducted in their role in chemicals management.

### **3.4.2 Policy and Legal Actions**

It is recommended that for effective management of POPs, various technologies in the country need to be imported. To facilitate the transfer of technology, the following need to be in place:

- 1) Focal point. Since Kenya has now ratified the ***Stockholm Convention*** and a focal point identified, it is critical that the focal point actualizes the implementation of the provisions of the Convention;
- 2) Institutional and legislative framework for the implementation of the ***Convention***. It should be established and the institutions' operations commenced;
- 3) There is need to inform and sensitize members of the public on the importance of management of POPs for the benefit of themselves and their environment. The Government and private sectors have a responsibility to educate and train persons working with POPs on the utilization, storage, disposal and other management techniques of POPs.
- 4) The business environment for private investments needs to be right to facilitate foreign direct investment (FDI) in the country that can introduce alternative technologies to POPs and environmentally sound disposal mechanisms. In this the Public Private Partnership Bill of 2012 will come in handy when it is finally enacted into law.

### **3.4.3 Adoption of International Treaty Law**

The ***Constitution of Kenya*** incorporated all ***Conventions*** and ***Treaties***, to which Kenya is signatory, into Kenyan law, are usually inter-related and more often than not the preceding ***Agreements*** form a

background for those that follow. Kenya stands to have a comprehensive system of dealing with POPs by adoption and domestication of the provisions of **Conventions** and **Protocols** that deal with POPs. The **Stockholm Convention** recognizes this, and in its preamble, it recalls the pertinent provisions of the relevant international environmental conventions, and in particular:

- **Rotterdam Convention** on the on the Prior Informed Consent Procedure for certain hazardous chemicals and pesticides in international trade; and
- The **Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes** and their disposal;

Some of the International treaty law that deals with POPs and for which there will be synergies are as discussed below:

**1) The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**

This **Convention** precedes the **Stockholm Convention** and prescribes the prior informed consent. The **Convention** was adopted on 11<sup>th</sup> September 1998 and came into force on 24<sup>th</sup> February 2004. Kenya deposited her instruments of ratification on 4<sup>th</sup> February 2004 and the same will come into force ninety days after this deposit, which falls on 4<sup>th</sup> May 2004.

The Scope of the **Convention** covers of pesticides and industrial chemicals banned or severely restricted for health or environmental reasons. The listing of these chemicals is obtained from notifications by Parties to the Convention. Many of the chemicals listed in the **Rotterdam Convention** are also in Annexes A and B of the **Stockholm Convention**.

The **Rotterdam Convention** was relevant to the drafting of the **Stockholm Convention**. Most of the chemicals included in the latter were included in the former. This subjects them to national regulatory actions to ban or restrict them.

The **Rotterdam Convention** emphasis is on the Prior Informed Consent (PIC) Procedure and the eventual ceasing of the use of harmful pesticides and industrial chemicals. Under the Convention the exporter of these chemicals is supposed to provide extensive information to the proposed importer on the potential hazards that the chemical poses to human health and the environment. Kenya's ratification of the **Rotterdam Convention** will evidently boost the success of POPs management in the country.

**2) Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal and the Ban Amendment Of 1989**

The **Basel Convention** was adopted on 22<sup>nd</sup> of March 1989 and came into force on 5<sup>th</sup> May 1992. This Convention provides for import and export management and control regimes relating to hazardous wastes. Whereas the **Rotterdam Convention** focuses on chemicals in commerce the **Basel Convention** focuses on wastes. The Convention has developed guidelines for managing wastes contaminated by chemicals in Annexes A and B of the **Stockholm Convention** and recognizes these guidelines as BATs and BEPs.

The responsibilities of Party States include minimization of the generation of hazardous wastes, provision of adequate disposal facilities, prevention of pollution, reduction of the trans-boundary movement of hazardous wastes and requirement of information on hazardous wastes imported into the country. The use of ESM in managing of wastes and stockpiles will, therefore, follow the guidelines provided by this Convention.

Kenya acceded to this **Convention** on the 1<sup>st</sup> of June 2000. The provisions of the **Convention** have been domesticated in **EMCA** Section 141, which makes it an offence to import, dispose or otherwise manage hazardous wastes contrary to the provisions of the **Act**. Through EMCA and regulations promulgated thereof will facilitate the implementation of the **Convention**.

**3) Bamako Convention on the Ban of the Import into Africa and the Control of Trans-boundary Movement and Management of Hazardous Wastes within Africa** (note: Kenya has not ratified this Convention and should do so)

The **Bamako Convention** was adopted in Mali, Bamako on 30th January 1991, it came into force on 22<sup>nd</sup> April 1998. The Convention has 18 parties (ten ratifications and eight accessions). Kenya signed the Convention on 25th March 2004. It has yet to ratify the **Convention**.

This Convention was intended to fortify the provisions of the **Basel Convention** in order to protect the African people and their environment. The treaty was inspired by the fact that Africa had over the years become a cheap dumping site for hazardous wastes produced in developed countries.

The rights and responsibilities of the parties are similar to those set out in the Basel Convention, but are specific to the African region. With regard to management of the impact of POPs the **Convention** creates a platform and network of information within Africa to deal with importation of hazardous wastes.



Thus, wastes contaminated with POPs cannot be dumped in the African Region and by extension into Kenya where the provisions of this Convention are in play.

#### 5) **Vienna Convention for the Protection of the Ozone Layer**

This **Convention** was an important precedent as it was the first time that nations agreed in principle to tackle the global environmental concern on the depletion of the ozone layer. The Convention was concluded in Vienna on 22<sup>nd</sup> March 1985. It was a framework **Convention** intended to address the adverse effects on human health and the environment brought about by change in the ozone layer resulting from use of man-made chemicals.

Parties to the **Convention** are expected to co-operate in research and information exchange as well as develop appropriate legislative and administrative measures to tackle management of activities likely to adversely impact on the ozone layer. POPs are some of the substances that may cause the modification of the ozone layer and for that reason fall within the ambit of this **Convention**. Kenya is a party to this **Convention** - acceded to it on 9<sup>th</sup> November 1988 - and is therefore bound by the obligations prescribed therein.

#### 6) **Montreal Protocol on Substances that Deplete the Ozone Layer**

The **Montreal Protocol** is the implementing arm of the **Vienna Convention**. Whereas the **Vienna Convention** established a framework, the **Protocol** deals with the substantive provisions for the management and preservation of the ozone layer. Using science based decision-making, the **Montreal Protocol** identifies the ODS and prescribes measures for management of their use and disposal and is thus similar to the POPs Convention.

The **Protocol** was concluded on 16<sup>th</sup> September 1987, its overall purpose was to gradually reduce and finally phase out global emissions of all ozone depleting substances. In particular, the **Protocol** revised phase-out schedules for identified substances. Kenya acceded to this **Protocol** at the same time as the **Vienna Convention** on 9<sup>th</sup> November 1988.

#### 7) **Soft Law International Agreements**

Other than **Conventions** and **Protocols**, international co-operation has also resulted in the promulgation of codes of ethics and guidelines on chemicals and wastes.

One of these is the **London Guidelines for the Exchange of Information on Chemicals in International Trade 1987 (amended 1989)**; the essence of these guidelines is to provide measures to promote

chemical safety through the exchange of information on chemicals traded internationally. The 1989 amendment incorporated the Prior Informed Consent (PIC) procedures contained in the **Rotterdam Convention**.

The **Code of Ethics on the International Trade in Chemicals (1994)** was complementary to the London Guidelines. The Code prescribes for private sector parties to enter into voluntary commitment to increase chemical safety, augment management of chemicals through exchange of information and to provide procedures to monitor voluntary compliance by parties to the guidelines. The Code's emphasis is on self-regulation amongst private parties and voluntary initiatives among chemical users.

Kenya stands to gain tremendously from adoption of the Guidelines and the Code particularly in so far as it includes private parties in the process of chemicals management.

### **The Libreville Declaration on Linkages Between Health and Environment and The Minamata Convention on Mercury**

#### **3.4.4 Harmonization of POPs and New POPs Management among Sectoral Policies**

A successful POPs management regime will require harmonization on several fronts.

**3.4.4.1** As discussed, Kenya's POPs management system would benefit from the synergy of legislation with the **Stockholm Convention** and other international and regional agreements with related content. In line with the **Synergies Agreement**, National harmonization of POPs management is of the essence. In the first instance, national policy should focus on developing a nationally accepted and environmentally friendly sound chemicals management procedure. To achieve this, it is important to involve key stakeholders in development, improvement and implementation of the policy. As Kenya moves towards industrialization by 2020 the chemicals industry will be as important as the agricultural industry in POPs management.

The POPs management policy must be acceptable, based on universally accepted scientific risk-based assessment of POPs management and should incorporate core principles of safety and environmental conservation.

Some of these principles include:

- 1) **Sustainable management and development** which focuses on risk reduction management where plausible and emphasis on development that meets the needs of the present generation without compromising the ability of future generations to meet their needs by maintaining the carrying capacity of the supporting ecosystems;
- 2) **The precautionary approach**, which prescribes that where there are threats of damage to the environment, whether serious or irreversible, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation;
- 3) The **“cradle to grave” approach** to chemical safety relates to the management of risk throughout the process of chemicals management from start to finish. This is realized in the domestication of international treaties that provide for chemicals management in various stages of the process. With regard to POPs the three are the Rotterdam Convention, Stockholm Convention and the Basel Convention.

**3.4.4.2 The second step towards harmonization includes the establishment of Standards. The Standards Enforcement Review Committee (SERC)** created under EMCA is charged with this responsibility in Kenya. In developing standards (SERC) may gain from embracing international standards. These may be borrowed from international Conventions, the current standards in the region or those adopted by nations that have well-established regimes in chemicals management. Such standards must however be suitable to the nation’s current status and or capacity to adapt, implement and enforce the same.

The concept of exchange of information is embodied in all the three health **Conventions**, namely, Rotterdam, Basel and Stockholm. The availability of a pool of information is key in understanding the state of affairs in chemicals management and equips Kenya in the development of a framework management system to deal with possible risks that may arise to human health or the environment.

### 3.4.5 Education and Training

An effective management system must be supported by an aggressive education program. Training of key players on standards and laws promulgated, and obligations attendant thereto is crucial for the practical success of risk management of POPs and other chemicals. There is opportunity for this under the Basel Convention Manual

Training must be followed up with institution or enterprise based projects to help individual stakeholders integrate the management concepts into their health and environmental protection programmes. This may in turn lead to private enterprise in the management of POPs.

### 3.4.6 DDT Stockpiles and Wastes

There is no specific policy and legislation covering wastes disposal as far as DDT is concerned, It is recommended that the BATs and BEPs for DDT disposal to be adopted include:

- 1) Incineration using cement kilns;
- 2) Bioremediation; and
- 3) Gas phase chemical reduction.

These technologies also need to be acquired through technology transfer procedures. **However, there is no policy guidance requiring them to be incorporated as BATs or BEPs.**

### 3.4.7 Cooperation with Non-Governmental Organizations (NGOs) and Inter-Governmental Organizations

NGOs play a key role in the realization of the goals of the Stockholm Convention and other chemicals safety agreements. In order to ensure success in the implementation of these Conventions the role that NGOs play is vital especially with regard to advocacy and introduction.

Presently the United Nations Environment Program (UNEP) with its headquarters in Nairobi, Kenya, plays an active role in chemicals management. UNEP has under its wing most of the chemical and waste management programs and Kenya should take advantage of this proximity.

Other important organizations are the Food and Agriculture Organization (FAO). This is the principle agent covering pesticide use particularly with regard to the agricultural industry, which is its primary focus.

The International Labour Organization (ILO) steps in where issues of human health and in particular employee safety in work environments where POPs and other potentially harmful chemicals are exposed to the employees. The World Health Organization participates also in the protection of human health and will carry out research into eliminating health risks resulting from chemicals. In Kenya WHO is involved in finding alternatives to POPs that are detrimental to human health such as DDT.

Working with these organizations is important as it benefits the country by easing access to information, human resources and financial resources. Involvement in programs and projects organized by these organizations also encourages cooperation with other countries, which is effective in the realization of the objectives of the Convention.

#### **3.4.8 Application of Environment Management Tools**

These tools include the environmental impact assessment, environment audits and ISO 14001 environment management systems (EMS) and Economic Instruments, which provide incentives to producers and consumers of environmental resources to encourage behavioral change to the benefit of the environment. The first two have been incorporated into legislation particularly the EMCA. The third however has not yet been domesticated in Kenya. The fourth is in the process of being put in place in the form of guidelines

ISO 14001 EMS is an international standard used worldwide to internalize environmental management at enterprise level. Its objective is to provide enterprises with the structure to introduce EMS, which can be incorporated into the business policy to achieve both environmental and economic goals. This standard enables business enterprises to embrace environmental conservation objectives, while still attaining their business objectives.

ISO 14001 EMS is a useful tool to deliver cleaner production, BATs and BEPs. However, adopting it into business practice is still voluntary.

Business in Kenya should be required to adopt and tailor the EMS standard to their circumstances with regard to POPs, in order to facilitate a unified and effective management model.

#### **3.4.9 Development of an Information Data Base**

A successful program for the management of POPs can only be achieved where a comprehensive information database exists. It is essential to identify POPs that are present in the environment, define

their properties, identify their source, quantity and potential impact of the POPs on the environment generally and on human health. To develop such a comprehensive database, an intensive research and compilation exercise must be conducted. This would work best after the requisite capacity building is carried out in the right institutions and the requisite legal and administrative regime implemented.

In the process of developing this database reference may be made to already existing sources such as the Kenya Ozone Office, Kenya Cleaner Production Center, and the Kenya Association of Manufactures among others. It would be most important if synergistic co-operative arrangements are developed in this regard.

## **CONCLUSION**

With all these in place, Kenya is very likely to be a beneficiary of funding from the Global Environment Facility (GEF), the ASP and other financial mechanisms/arrangements that are availed to developing countries for the protection of their environment from persistent organic pollutants.

Financing is key in ensuring that successes are recorded in POPs management, which in turn will have real results in the preservation of our environment and the protection of human health, which are the underlying purposes of the Stockholm Convention.

**MEASURES TAKEN TO MANAGE PERSISTENT ORGANIC POLLUTANTS IN KENYA**

Category	Chemical Name	Convention Annex	Use	Action. Measures taken to Eliminate/Restrict the use in Kenya	Law/Regulatory Policy Governing Act
Pesticide	Aldrin	A	Insecticide	Banned in 2004	Pest Control Products Board (PCPB) under the Pest Control Products Act (PCPA)
Pesticide	Chlordane	A	Insecticide	Banned in 1986	PCPB under the PCPA
Pesticide	Dieldrin	A	Insecticide	Banned in 2004	PCPB under the PCPA
Pesticide	Endrin	A	Insecticide	Banned in 1986	PCPB under the PCPA
Pesticide	Heptachlor	A	Insecticide	Banned in 1986	PCPB under the PCPA
Pesticide/ Industrial Chemical	Hexachloro benze (HCB)	A	Fungicide released during manufacture of certain chemicals and as a result give rise to dioxins and furans	Banned in 2004  None	PCPB under the PCPA  NEMA to take necessary action
Pesticide	Mirex	A	Insecticide	None	PCPB to take necessary action.

Industrial Chemical	Polychlorinated Biphenyls (PCBs)	A	Coolant for electrical transformers and capacitors	None	PCPB under the PCPA
Pesticide	Dichlorodiphenyl Trichloroethane (DDT)	B	Mosquito Control	- Restricted in 1986 for use in public health only for mosquito control in mosquito breeding grounds - Banned in 1986 for agricultural use and livestock in 1976	PCPB under the PCPA
Unintentional by-products	-Dioxins -Furans	C	-The use of chlorine in the paper making industry introduces dioxins and furans into the environment  -Released during fossil fuel and municipal waste burning  -Released during incineration of medical waste.	None	NEMA to take action through regulations

**The draft Guidance for the Control of the Import and export of POPs lists POPs which are legally in the market as:-**

According to the decision of the COPs in 2009 and 2011 to list new POPs in Annexes A and B to the Stockholm Convention, the following substances, subject to domestic laws, can be legally on the market:



- Lindane: No production allowed, specific exemption for human health pharmaceutical control of head lice and scabies as second line treatment – available for 5 years from date of entry of this decision. Production for allowed uses only – crop-pest complexes as per part VI of Annex A
- DDT: Production allowed only for purposes of disease vector control in accordance with who recommendations and guidelines on the use of DDT – part II of Annex B. No expiry date to the exemption
- Tetrabromodiphenyl ether and pentabromodiphenyl ether or hexabromodiphenyl ether and heptabromodiphenyl ether<sup>3</sup>: Recycling of articles containing these chemicals, and the use and final disposal of articles produced from these recycled materials, with specific exemption which expires in 2030 for all parties – Parts IV and V of Annex A
- PFOA, its salts, PFOSF (and PFOS-related chemicals originating from PFOS, its salts and PFOSF) as substances, in mixtures, and in articles containing these chemicals. Production allowed for the same purposes as the use. Parties producing or using these chemicals to take guidance of BATs and BEPs in part V of annex C. Acceptable purposes have no expiry dates.

## LIST OF STAKEHOLDERS ENGAGED

- 1) **MEWNR** Ministry of Environment Water and Natural Resources
- 2) **CIC** Commission on the Implementation of the Constitution
- 3) **MOH** Ministry of Health – Nakuru Office and Kisumu Office
- 4) **NEMA** National Environment Management Authority  
: Departments - Legal, Environmental Awareness and Public Participation - Nairobi,  
Regional Coordinator - Eldoret, County Directors of Environment – Nairobi, Mombasa,  
Nakuru, Eldoret, Naivasha, Kisumu
- 5) **PCPB** Pesticides Control and Produce Board
- 6) Environmental & Combustion Consultants Limited, Kitengela
- 7) **BATA** Limuru
- 8) **SGSM** Mombasa, Administration and laboratory
- 9) **Customs Department** – Mombasa, Kisumu, Projects management Unit Nairobi
- 10) **KIRDI** Kenya Industrial Research and Development Institute
- 11) **KEMRI** Kenya Medical Research Institute - Kilifi and Mombasa
- 12) **ICIPE**
- 13) **NETFUND** National Environmental Trust Fund
- 14) **PCC** Public Complaints Committee
- 15) **NET** National Environmental Tribunal
- 16) **KAM** Kenya Association of Manufacturers
- 17) **KIPI** Kenya Intellectual Property Institute
- 18) **KEBS** Kenya Bureau of Standards
- 19) **MU** Maseno University – Vice- Chancellors Office and Chemistry department
- 20) **OAG/DOJ** Office of the Attorney-General and Department of Justice, Nairobi
- 21) **WEEE Center**, Nairobi (NYU)
- 22) **Kitengela E-waste Compliance**
- 23) **Oserian Farms** – Naivasha
- 24) **Ken Gen**
- 25) **Office of the Government Chemist**
- 26) High Court of Kenya, Nairobi Law Courts
- 27) **AFC** Agricultural Finance Corporation, Nakuru
- 28) **KEMFRI** Kenya Marine and Fisheries Institute
- 29) **KSC** Kenya Seed Company – Nakuru and Eldoret
- 30) **KIWASCO** Kisumu Water Services Company
- 31) **Bata Shoe Company, Limuru**  
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Ms. Penina Kairuki - Secretary EHS  
Mr. Benson Maende - Company Chemist
- 32) **Naivasha Sub-County**  
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Mr. Ezekiel Bowen  
Mr. Stephen Mungai
- 33) **Oserian Company**  
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- 37) **Kenya Seed Company**  
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## CHALLENGES IN CHEMICALS AND POPs MANAGEMENT IN KENYA

- 1) The Constitution of Kenya, 2010 has effectively changed the mode of government for example devolving overall governance matters to the counties. It has also created new administrative and legislative structures thereby necessitating the rationalization of the new dispensation by new centers of power like Governors, new institutions at national and county levels, the merging or proscribing of some implementing institutions and sectors. Some of these new interventions have been juxtaposed on the old multiplicity of implementing institutions and sectors. This has resulted in confusion with respect to jurisdictional and coordination issues. Additionally, new policy, legislation, regulations and standards are also in the process of being enacted to address the emerging governance agenda, thereby replacing some of the existing, and introducing new, regulatory framework.
- 2) The fact that the rationalization of institutional and sectoral roles and mandates is still in the pipeline has not helped the environmental and specifically, the chemicals management agenda. For example, the National Environment Management Authority (NEMA), which has the national mandate of coordination and supervision of all matters of environmental management including POPs, has devolved some of its national mandate to the counties, but it is not clear whether the scope of devolved powers is adequate to deal with the counties'/regions' environmental mandate exhaustively at their level
- 3) A case in support of 2) above is with regard to EIA/EA: the region office can only license construction projects of only up to the cost of KShs. 100 million, while any projects involving chemicals and petrol products are licensed at Headquarters in Nairobi. Licencing of transportation and incineration of hazardous waste is also done from Nairobi. Regional offices only licence transportation of municipal waste. Yet, the devolved staff are experienced, most of them having been transferred from the head office and are better placed on the ground to address all EIA/EA matters
- 4) The roles of all institutions with a mandate in chemicals management, NEMA included, are not clearly defined and coordination structures are lacking. For example, is it the Governor's office or NEMA which is in control of the Stockholm Convention and other legal framework regimes, regarding compliance, enforcement and coordination of all those stakeholders involved in sound chemicals management including the public and private sector?
- 5) A uniform regulatory regime for chemicals, and POPs management is lacking, with this agenda being addressed through EMCA and various sectoral laws like the Agriculture Act, and regulations, standards, etc.
- 6) Even though, the devolution of the mandate of institutions like PCPB, NEMA, WARMA, has limited the application of some of these, like the Water Quality Regulations
- 7) Some of the relevant MEAs have not been domesticated
- 8) Generally, except for a few stakeholders, all other stakeholders which are key in implementing the Stockholm Convention and the Kenya NIP, including NEMA County Office, Kisumu Office, KARI, Kenya Seed Company, LEVMP, complained they were not aware of the SC and the NIP

- 9) Almost all stakeholders engaged complained of lack of information sharing generally on chemicals management
- 10) Chemicals waste management is not compliant , most hospitals for example not having functional and/or compliant incinerators
- 11) Those with some small stocks of expired and/or obsolete chemicals like KARI, Kitale and Kenya Seed, Kitale did not know how to dispose of them (lack of information sharing e.g. by NEMA and the Medical Services and Dental Practitioners Board
- 12) Pollution control rests on credible research. Universities can carry out this role, but the country has issues of information sharing and coordination
- 13) Regional offices have serious capacity issues – human resources, technical expertise in POPs management, facilitation to handle trans-boundary issues, among others. NB: We discovered that in the POPs list under the East African Customs Act is missing some of them (evidence of inadequate stakeholder consultation in the legislative process) and needs to be updated
- 14) Concern regarding transportation of banned chemicals from the region, where they are not controlled Regional profiling, currently are only for regions and should be extended to authorities and counties and Conventions like the SC
- 15) On a regional and global level, weak institutional frameworks and inadequate technical capacity nullify efforts towards sound chemicals management
- 16) Access to funding is hampered by poor capacity to meet red tape requirements of resource allocation mechanisms like GEF leading to Africa benefiting least from these opportunities and its marginalization. International dynamics lead to dumping of chemicals waste in our region

## **RECOMMENDATIONS**

This report, addressing the legal, policy and institutional aspects of POPs management in Kenya therefore makes the following recommendations:-

- 1) The overall operational context - legal, policy and institutional aspects of POPs and other hazardous and chemicals management at county and therefore grassroots level needs to be improved in order to give effect to the devolution agenda as per The mix of the new constitutional dispensation requiring devolution of environmental and administrative management to the counties has established new administrative structures, which have increased confusion in the nation's agenda of sustainable chemicals management –
- 2) On a positive note, for example, the NEMA County office, Kisumu has devised a way of going around the issue of politicization of environmental solutions in the problem of car washing near riparian space and the attendant pollution, by not dealing with the washers, but with the car owners who, using the Water Quality Regulations, 2006, and are fined KShs 10,000 when they collect their cars. More such innovative solutions should be encouraged and supported
- 3) The issue of public awareness creation especially amongst key stakeholders, needs to be urgently addressed in order to improve chemicals management in the country

- 4) Relevant regulatory literature like conventions, laws, protocols, regulations, standards, research results, etc., need to be widely availed to institutions and the public
- 5) On institutional capacity generally, all institutions need enhancement and facilitation to handle all processes and procedures of POPs management
- 6) Regional offices with a trans-boundary mandate need support in acquisition of necessary equipment and local expertise to be able to comply and collect accurate data, analysis, carry out surveillance, identification of and credible response to chemicals issues e.g. by NEMA and Customs dept – case of oil spill and other disasters
- 7) Control mechanism/s of regulated chemicals need enhancement
- 8) It was agreed generally that there is need to put in place a structure/body to coordinate and deal with all the chemicals management (Stockholm Convention, POPs included) mandate in a holistic manner – the domestic, regional and global agenda
- 9) Such a body will also handle information sharing, awareness creation, institutional capacitation (ensures quality results), etc. NB: capacity enhancement should also be extended to the technical support personnel
- 10) There is need to encourage and enforce control audits – self-regulation - since institutions are overwhelmed in supervision and control roles. For example, the NEMA office in Kisumu, in implementing the current NIP, in promoting self-regulation is encouraging self audits in EIA/EA. Self-regulation should be extended to other problems e.g. regarding improper use of pesticides by farmers, fellow stakeholders should impose sanctions on culprits
- 11) Universities and others, need to be assisted to overcome: the issue of theft of Intellectual Property which constraints the sharing of valuable research information, with great loss to Kenya as a whole, the problem of competition for donor funding and conflicting interests with funding agencies
- 12) E-waste  
Recommendations
- 13) The greatest challenge for Kenya is to develop a legislative framework that comprehensively domesticates the relevant provisions relating to POPs as set out in the Stockholm Convention and other relevant international agreements. This will most effectively be dealt with by the promulgation of subsidiary legislation
- 14) The development of regulations for the management of Ozone Depleting Substances (ODS) has now provided a precedent for the formulation of subsidiary legislation on chemicals management in Kenya. Firstly, since there is need to harmonize the legislation regulating chemical management in Kenya, there is a corresponding need to repeal, merge or amend some provisions of the current laws in order to avoid duplication or conflict in the law
- 15) Integrate chemical management issues into development plans

### Action Plan for Implementation:

The updated NIP will be supported by policy guidelines and regulatory mechanisms designed following Conventions guidance documents and implemented by respective institutions, coordinated by the MEWNR. The process will provide practical measures to facilitate an integrated approach to chemicals and wastes management like that under SAICM and the Convention. All sectors involved in POPs management will be supported. In all this an effective legal framework will be crucial. The Action Plan for this will include timeframes supported by a national Plan Implementation Strategy allocating responsibilities and activities and containing benchmarks and M&E mechanisms to ensure full compliance with the Convention. The Action which will be pegged on the normal 5 year Strategic Plan of the Ministry the coordinator is as follows:

Activity	Timeframe 2014-19	Implementing Agency	Objective	Budget in 000,000
Submission of updated NIP/Apply for exemption/s	2014	MEWNR	Compliance with Art. 7	2
i) Completion of the new POPs and regulatory framework national inventory and developing a POPs register ii) reporting on endosulfan	2014	MEWNR, KRA & Customs, NEMA, KEBS, AG, Academia, Private sector, civil society, public, judiciary, Parliament, Int'l orgs, bilateral partners, MEAs Secretariats	Design of compliant regime, reporting on endosulfan	250
iii) Needs Assessment for Implementation/Drawing of Implementation Strategy of new POPs and Alternatives iv) Write proposals for funding	2014 -15	Coordinated by MEWNR, Academia, Industry, public, civil society etc.	To agree on activities and draw strategy	175
Putting in place regulatory framework	2015-2019	MEWNR, NEMA, Judiciary, AG, legal fraternity, academia, industry, public, civil society, etc	Formulating compliant framework	575
Formulating interim framework and Awareness creation	2014 - 19	All stakeholders	Proving for non-regulatory compliance measures	500
Capacity building for critical mass of implementers	205 -17	All stakeholders	Providing implementation capacity	600
Monitoring mechanisms	2014 -19	Coordinated by MEWNR	To ensure continuous compliance	300
			Total	2402

## **Outputs:**

### **Monitoring and Evaluation**

The purpose of monitoring and evaluation of the National Implementation Plan is to ensure its effective and efficient implementation as well as ensuring that all POPs matters and issues/concerns (legal, policy and institutional capacity especially) are addressed and integrated into the development process. This will involve documentation of 'Best Practices' for the purpose of replication. The monitoring and evaluation of the NIP will be carried out using participatory approaches where stakeholders will be involved in all stages. Monitoring will be undertaken on a continuous basis and bench marks should be established.

It is also advised that an Implementation Matrix be formulated to ensure definite action is taken by all involved. It should be supported by a National Implementation Plan Implementation Strategy, which should allocate activities to respective institutions and stakeholders and detail attendant costs.

**Costing:** projected for 5 years in line with Strategic Plan. Various activities as enumerated above, it is difficult to estimate the overall budget, but tentatively, I will put it at **KES 2,402, 000, 000** subject to expert evaluation of attendant activities.



### **Terms of Reference - ToRs**

To assist in the assessment of the national Legislative, Policy and Institutional infrastructure and capacity for POPs management in Kenya.

All Stockholm Convention Parties are to implement their international obligations by integrating them into their national legal framework. A Party like Kenya should evaluate its policy, legal and institutional capacity for chemicals management and using guidance documents from the Secretariat of the Convention, design new legislative or regulatory measures to implement its obligations. A Party can also use suggested potential legal frameworks for chemicals management chosen according to national circumstances.

In this endeavour, a synergistic approach should be used to enhance coordination among the three MEAs (Basel, Rotterdam and Stockholm) addressing the protection of human health and environment from hazardous chemicals and waste.

In light of the amendments to the Convention which added new POPs Kenya needed to assess its capacity to manage them. One of the tasks was to assess the legal, policy and institutional capacity, hence this consultancy and these TOR for this segment