REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT AND FORESTRY

NATIONAL CHEMICALS POLICY

JANUARY 2022

FORWARD

Chemicals constitute an important part in our today's society and play a vital role in the economic sector. Millions of people throughout the world lead richer, more productive, and more comfortable lives because of the thousands of chemicals in the market today. Chemicals are used in a variety of products and processes and are major contributors to global and national economy. In Kenya, chemicals contribute a significant percentage of the Gross Domestic Product (GDP) in their application in agriculture, manufacturing, energy, extractive industries (petroleum and mining)and health among others.

However, when chemicals are misused and/or abused they can cause detrimental effects on human health and environment. Hence, sound management throughout their life cycle is essential to avoid significant and increasingly complex risks to human health, ecosystems and substantial costs to national economies.

The importance of the sound management of chemicals for the protection of human health and the environment, has been recognized in several occasions, including by heads of State and Government and high-level representatives at the United Nations Conference on Sustainable Development, held in Rio de Janeiro in June 2012. In the outcome document of the Conference, entitled "The future we want" they reaffirmed the aim to achieve the sound management of chemicals throughout their life cycle and of hazardous waste in ways that lead to minimization of significant adverse effects on human health and the environment by 2020 as set out in the Johannesburg Plan of Implementation.

Kenya Chemical Policy recommends that all relevant stakeholders move towards the sound management of chemicals and chemical waste. It emphasizes the need for continued and strengthened multi-sectoral and multi-stakeholder involvement. Through this policy the Kenya Government will address prevailing capacity gaps across the country. It will strengthen national and county legislation using a life cycle that integrate sustainable approach, engage stakeholders, and further strengthen institutions and programs by promulgating, aligning, implementing national legislation and policies, including full implementation of the globally harmonised system of Classification of Chemicals (GHS), promulgating legislation for industrial and consumer products, and taking measures to address illegal international traffic of chemicals.

It will also guide in developing national and regional chemicals and waste management action plans and programmes.

I wish to thank all the ministries, departments, agencies, and stakeholders as well as development partners who have guided and funded this process.

Keriako Tobiko SC,EGH

CABINET SECRETARY, MINISTRY OF ENVIRONMENT AND FORESTRY

PREFACE

Chemicals are used widely in almost all activities. It is one of the largest industrial sectors in the world. In addition, many new chemicals are also being introduced into the market. This presents more opportunities for economic growth in the economy and the Chemicals but this may be hampered due to the potential chemical risks in work places, costly implications for the environment, human health, and government budgets if not well regulated.

To address these issues, Kenya has developed the National Chemicals Policy that will establish a comprehensive system sound management of chemicals. The policy has considered the Kenyan Constitution, National Legislations, Multilateral Environmental Agreements, and the Strategic Approach to International Chemicals Management amongst other relevant chemicals instruments.

The objective of the policy is to promote sound management of chemicals for sustainable development in Kenya. The expected outcome is the establishment of national and regional management systems of chemicals in Kenya for the protections of human health and environment.

Some of the specific actions the policy will address include:

(a) Formation of a national inter-ministerial coordination system for sound management of chemicals through a life cycle approach including production, import, storage, transport, use and export and disposal upon becoming waste.

(b) To domesticate relevant provisions of international treaties, agreements and conventions and implementation of the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

(c) Development of legislations on sound chemicals management to ensure protection of human health and environment from adverse effects of chemicals including gender mainstreaming, children, youths and the vulnerable groups in the chemicals management.

(d) Ensure adequate financing of chemicals management by mainstreaming sound chemicals management into development plans and budgets.

(e) Control chemical risks from the manufacturers, importers to the users on potential hazards and on the safety precautions to be taken to protect workers, and consequently the public and the environment.

(f) Strengthen collaboration and information exchange between various government, non-government entities, research institutions, secretariats to Multilateral Environmental Agreements (MEAs), Intergovernmental Organisations on Management of Chemicals (IOMC), development partners, academia, industries, public interest groups and the private sectors in addressing chemical management activities.

(g) Review the existing national chemical data, and enhance comprehensive data generation and information exchange among key chemical institutions, including strengthening the chemicals information exchange network.

(h) Promote safety and awareness creation among the workers and general public, including children on prevalent hazardous/dangerous chemicals in school, research and institutions of higher learning.

(i) Initiate collaborative mechanism to address technology information sharing and research among all stakeholders.

(j) Integrate sound chemicals management into curricular at all levels of learning.

(k) Document, disseminate and encourage the use of simplified language on risks associated with chemicals and chemical products.

(l) Establish and strengthen chemicals and chemical waste resource centres at national and county levels.

In conclusion, the chemicals policy will provide guidance but not limited to stakeholders engaged in the developing provisions relating to the use of chemicals such as policy makers, competent authorities, the management of companies where chemicals are produced, supplied or used, and emergency services.

It is my expectation that the Chemicals Policy will provide a proper foundation for sound management of chemicals in Kenya and contribute to the sustainable development of the economy in line with the Vision 2030 and the Sustainable Development Goals (SDGs).

Dr.Chris Kiptoo, CBS

PRINCIPAL SECRETARY, MINISTRY OF ENVIRONMENT AND FORESTRY

EXECUTIVE SUMMARY

Chemical substances constitute the major ingredients for driving global, regional and national economies. Chemicals are widely applied in agriculture, manufacturing of industrial and household goods, pharmaceuticals and drugs, foods and beverages, cosmetics, soaps and detergents, fabrication of automobile and aircraftparts, oil and gas production, and textile. In addition, chemicals are also widely used in public health protection including disease vector controlof mosquitoes, tsetse flies and in water treatment. There is hardly any sector where chemicals are not applied in one way or the other, hence prudent management of these substance is critical in achieving sustainable development.

Misuse and/or abuse of chemicals can result into acute or chronic human health effects and also negatively impact the environmental. Chemicals can directly cause death through poisoning and self-harm. Furthermore, exposure to high levels of hazardous chemicals can induce or trigger diseases such as cancer, diabetes, respiratory and cardiovascular diseases, congenital anomalies, chronic kidney disease and general suppression of human immune system.

In Kenya chemicals sales are projected to grow by 3 per cent per year to 2050 in line with international trends. It is therefore important to integrate sustainable use of chemicals in the implementation of development programmes at national and county levels.

The Kenyan Constitution 2010 enshrines the right to a clean and healthy environment for all. In line with the constitution, the government recognizes the need to mitigate the risks posed by chemicals to human health and environment through air, water and land pollution. This chemical policy is embodied in the Sessional Paper No. 6 of 2014entitled “Environment and Development”. It recognizes that chemicals are essential commodities for manufacturingof primary chemicalsthat are used for making products for end users in different sectors.

This policy was formulated by Ministry of Environment and Forest Resources through a participatory and a consultative process that involved engagement of the national government ministries and departments, county governments, the private sector organizations, the academia, non- governmental organizations and public interest groups. This culminated in the production of the Draft National Chemicals Management Policy, 2020.

The policy covers a broad scopeincluding agricultural and industrial chemicals, environmental, economic, social, health and labour aspects of chemical safety and security. It promotes an organised framework of understanding chemical risks and risk reduction strategies, knowledge and information management, governance, capacity building and

international cooperation,and illegal international traffic of chemicals.Recently because of issues of terrorism, it has become necessary also to consider duo use of chemicals that may have security implications. However, it is understood that matters of the chemical weapons convention are outside the scope of this policy.

The strategy for sound management of chemicals is to promote safe and sustainable use of chemicals throughout their life cycle. The action areas of the policy include promoting innovation, production, risk assessment and reduction; worker's safety, information and hazard data generation; trade, transport and trans-boundary movement; disposal of hazardous wastes, storage, emergency preparedness, responsible care, liability and compensation in case of chemical accidents; and monitoring of chemicals in the environment.

The policy recognises that management of chemicals is a multi-stakeholder undertaking. This linkage requires partnership and benefit from the strengths of respective players through a multispectral coordination committee. The terms of reference for inter-ministerial coordination committee are found in annex 1.

Addressing sound chemicals management will require technical and financial resources. This policy will build on ongoing work programmes but also tap from the international and private sector financing.

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ACRONYMS AND ABBREVIATIONS

SAICM	Strategic Approach to International Chemicals Management
CIEN	Chemicals Information Exchange Network
CMRs	Carcinogens, mutagens and reproductive toxins
EMCA	Environmental Management and Coordination Act
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHS	Globally Harmonized System
GOK	Government of Kenya
HESA	Health and Environment Strategic Alliance
ILO	International Labor Organization
KRA	Kenya Revenue Authority
MCCMS	Multisectoral Coordination Committee on Sound Chemicals Management
MDGs	Millennium Development Goals
ME&F	Ministry of Environment and Forestry
MEAs	Multilateral Environmental Agreements
OOG	Overall Orientation and Guidance
NCP	National Chemicals Policy
NEAPC	National Environment Action Plan Committee
NEC	National Environment Council
NEMA	National Environment Management Authority
NIP	National Implementation Plan
NGOs	Non-Governmental Organizations
NSSC	National Chemicals Steering Committee
ODSs	Ozone Depleting Substances
OPS	Overarching Policy Strategy
POPS	Persistent Organic Pollutants
PPPs	Public-Private Partnerships
PRTR	Pollutant Release and Transfer Register
SCM	Sound Management of Chemicals
SDGs	Sustainable Development Goals
SERC	Standards and Enforcement Review Committee -
UN	United Nations

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization

1.0 INTRODUCTION

1.1. A chemical is defined as substance in any form whether by itself or in a mixture or preparation, whether manufactured or derived from nature and for the purposes of this Policy includes toxic and hazardous industrial chemicals andmaterials, agrochemicals, pharmaceuticals and drugs.

1.2. Chemicals constitutean important part in today's society and there is hardly any economic sector where they do not play a role. They are used in a variety of products and processes and are major contributors to global and national economy Millions of people throughout the world lead richer, productive and comfortable lives because of the thousands of chemicals in the market today.

1.3. In Kenya, chemicals contribute approximately 8% [1]of the Gross Domestic Product (GDP) being applied in agriculture, manufacturing, energy, extractive industries (petroleum and mining), and health among others.

1.4. Misuse/abuse of chemicals can lead to detrimental effects on human health and environment. Sound Management of Chemicals (SMC) throughout their life cycle is essential in order to minimise the risks to human health and ecosystems, and reducethe burden to the national economy.

1.5. Sound management of chemicalswas recognized as an important way of protecting human health andthe environment bythe Heads of State and Governments, and high-level representativesat the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, in June 2012. The Conference outcome document titled "The future we want", reaffirmed the need to achieve SMC throughout their life cycle by 2020 and supports implementation of Johannesburg Plan which leads to minimization of hazardous waste adverse effects on human health and the environment.

1.6. The Dubai Declaration of 2006 on the Strategic Approach to International Chemicals Management (SAICM) laid out the ministerial declaration, overarching strategy.The

[1]KNBS Statistical Abstract 2014, for the Manufacturing sector

First Session of United Nations Environment Assembly(UNEA)in its resolutions, welcomed the important contribution of theSAICMin facilitating action by all relevant stakeholders towards the sound management of chemicals and waste. It emphasized the need for continued and strengthened multi-sectoral, andmulti-stakeholder involvement as well as the need for continued strengthening of SAICM. Consequently, UNEA agreed to goal of sound management of chemicalswhich inform development of this policy.

1.7. SAICM is a policy framework that promotes chemical safety around the world. It promotes environmental, economic, social, health and labour aspects of chemical safety, and addresses agricultural and industrial chemicals, with a view to promoting sustainable development and management of chemicals at all stages of their life-cycle, including in products. By adopting SAICM, governments further agreed that advancing chemical safety should be viewed as a necessary component of the Sustainable Development Agenda.

1.8. Sound management of chemicals is addressed in eleven of seventeen SDGs hence it is critical in addressing theagenda 2030 on Sustainable Development. In 2015, the International Conference on Chemicals Management, at its fourth session[2] which was presided by Kenya, adopted an overall orientation and guidance document for achieving the goal of sound management of chemical by SAICM 2020.

1.9. SAICM overall orientation and guidance for achieving the 2020 goal of sound management of chemicals identified the following eleven basic elements as critical at the national and regional level to the attainment of sound management of chemicals and waste: -

1) Legal frameworks that address the life cycle of chemicals and waste;
2) Relevant enforcement and compliance mechanisms;
3) Implementation of chemicals and waste-related multilateral environmental agreements, as well as health, labor and other relevant conventions and voluntary mechanisms;

[2] www.saicm.org:Adopted at the 4th session of the international conference on chemicals management chaired by Kenya

4) Strong institutional frameworks and coordination mechanisms among relevant stakeholders;
5) Collection and systems for the transparent sharing of relevant data and information among all relevant stakeholders using a life cycle approach, such as the implementation of the Globally Harmonized System of Classification and Labeling of Chemicals;
6) Industry participation with defined responsibility across the life cycle, including cost recovery policies and systems as well as the incorporation of sound chemicals management into corporate policies and practices;
7) Inclusion of the sound management of chemicals and waste in national health, labor, social, environment and economic budgeting processes and development plans;
8) Chemicals risk assessment and risk reduction through the use of best practices;
9) Strengthened capacity to deal with chemicals accidents, including institutional-strengthening for poison centers;
10) Monitoring and assessing the impacts of chemicals on health and the environment;
11) Development and promotion of environmentally sound and safer alternatives.

2.0SITUATION ANALYSIS

2.1Legal and Policy Framework on Chemicals Management

This policy takes into account laws, policies and national sectoral strategies.

2.1.1 The Kenyan Constitution 2010 enshrines the right to a clean and healthy environment for all. The government recognizes the need to mitigate the risks posed by chemicals to human health and environment through air, water and land pollution. To this effect the government has developed policies and laws to protect the environment and ensure sustainable use of natural resources including the management of chemicals and waste.

2.1.2 The Sessional Paper No.10 of 2014 on the National Environment Policy elaborated on the linkages between environment and development, including chemicals and waste management. It recommended that Kenya develop a chemical policy to detail how chemical risks will be managed and to provide for effective coordination and

regulation, of all actions directed at or likely to have influence on the sound management of chemicals.

2.1.3 Kenya has ratified the Basel Convention, the Rotterdam Convention, the Stockholm Convention, the Vienna Convention / Montreal Protocaland signed the Minamata Convention on Mercury in the year 2013. TheseConventions have synergies and common provisions on key cross-cutting areas of concern in relation to the management of chemicals.

2.1.4 A large majority of the sectoral laws addressing chemicals are yet to be amended to conform to the Sessional Paper, which makes chemical management challenging. The following laws exist for the purpose of environmental health and occupational safety; the Environment Management and Coordination Act, 1999; the Public Health Act,(Cap. 242); the Radiation Protection Act,(Cap 243); the Food, Drug and Chemical Substances Act, (Cap 254); the Occupational Safety and Health Act, 2007; the Pharmacy and Poisons Act, (Cap 244); the Water Act, 2016; Pest Control Products Act, 346; Mining Act, 2016; Standards Act (Cap 496); County Government Act, 2012; the Explosives Act, (Cap 115); the Petroleum Act (2019); the Traffic Act; and Anti-counterfeit Act (2008). These legislations are administered by relevant government agencies both at national and county levels.

2.1.5 The KenyaVision 2030 is the country's development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrialised middle-income country providing a high quality of life to all citizens by the year 2030. Under the social pillar, the Vision seeks to build a just and cohesive society with social equity in a clean and secure environment. Kenya aims to be a nation that has a clean, secure and sustainable environment by 2030. Specific strategies involve improving pollution and waste management through the design and application of economic incentives.

2.2 Health Risks by Chemicals

2.2.1 The World Health Organisation (WHO) attributes 25% of the diseases to environmental factors. Various chemical conventions have published lists of hazardous chemicals, some of these chemicals are in the WHO list of priority

chemicals for immediate action. In Kenya these diseases have increased exponentially in the recent past.

2.2.2 Contamination of air, water and soil by chemicals abovethe environmentally safe levels. The risk associated with chemicals include acute toxicity, skin irritation, mutagenicity, carcinogenicity, and toxicity to production system. Exposure to high level of chemicals can also induce or trigger diseases such as cancer, diabetes, respiratory and cardiovascular diseases, congenital anomalies, chronic kidney disease and suppression of immune system. Chemicals can also directly cause death through poisoning and self-harm.

2.3 Social-Economic Concerns

2.3.1 The global income levels are raising creating increasing demand for goods and products which chemicals are essential.Effective use of chemical leads to innovation, jobs creation, technology advancement, increased productivity and food security, modern medicine, and resource efficiency.

2.3.2 Kenya experiences continued population growth accompanied by increased demand for food resources and industrial goods and services. The consumption trend adds places on the limited national resources and ecosystems and will drive increased use of chemicals to revamp food products and industrials goods.

2.3.3 In absence of sound chemical management, it leads to effects such as; environmental pollutions, increases exposure to chemicals, diseases burden, increased wastes, and Chemical security issues and safety. Investment and innovation in the chemicals and hazardous wastes industries will be crucial to meeting these challenges. Significant changes in production and use patterns can already be observed.

2.4Chemicals in Trade

Much of the concerns of national and international trade in chemicals is on the risks associated with the short and long-range movement of chemicals. The potential for long-range transport for highly toxic chemicals and products such as sodium cyanide has been the major criterion for identifying issues of global concern. In practice, however, much of the

global movement of chemicals is affected through trade and through their inclusion and incorporation into products constituting a risk to human health and the environment. In addition, where the challenge is local, but with global effects, it may be appropriate to seek global solutions where local solutions appear to be insufficient.

2.5Mainstreaming Chemicals Management into Development Processes

Studies and research conducted in Kenya have identified priorities which include management of chemicals risks; obsolete chemicals including pesticides; prevention and control of chemical pollution and chemicals waste. Institutions therefore need to include sound management of chemicals in their strategic plans, policies, budgets and other instruments. Some companies, from chemical producers to retailers are introducing sustainable supply chain management, full material disclosure, risk reduction beyond compliance, and human rights-based policies. However, widespread implementation of these initiatives has not yet been achieved especially in the small-scale services, informal sector and agricultural cooperatives.

3.0RATIONALE AND JUSTIFICATION

3.1 Chemicals are an important contributor to national development across all sectors. They form important input to agriculture, manufacturing, energy and as ingredient to commonly used materials such as plastics, electronics, refrigerators and air conditioning. They improve the quality of life as hygiene and sanitation products, cosmetics, agrochemicals, foods and drugs.

3.2 Chemicals can be dangerous because of their toxic and hazardous nature. Chemicals can be flammable, explosive and carcinogenic, directly or through air, water, food and materials. These inherent risks need to be managed at production, use, transport, storage and disposal in an environmentally sound manner.

4.0 VISION AND MISSION

4.1 *Vision*

To achieve sustainable sound management of chemicals for a clean and healthy environment.

4.2 *Mission*

To facilitate promotion and coordination of sound management of chemicals at all stages of their life-cycle for sustainable development.

5.0. GOALS AND OBJECTIVES

5.1. Goal

To achieve sustainable sound management of chemicals throughout their life cycle to protect the human health and environment.

5.2 Objectives

The objectives of this Policy are to:

(a) Provide a framework for integration of chemicals management considerations into the various sectoral policies, national development planning and decision-making processes.

(b) Strengthen the legal and institutional framework for effective coordination and management of the chemicals in relation to social economic and natural activities.

(c) Ensure sound management of chemicals for national economic growth, and improved people's livelihood and well-being.

(d) Promote and support the provision of mechanisms for sound chemicals management tools that enhance sustainable consumption and production;

(e) Promote and enhance collaboration, synergy, partnerships and participation in the protection of human health and the environment by all the actors.

(f) Provide a framework to promote research, monitoring and risk assessment on chemicals that will inform policy formulation and decision making.

(g) Provide a framework to domesticate international agreements, processes and mechanisms.

6.0 GUIDING PRINCIPLES AND APPROACHES

The following principles underpin this Policy:

6.1 Principles

Constitutional Right*:* Every person in Kenya has a right to a clean and healthy environment and a duty to safeguard and enhance the environmental health.

Right to Development:The right to development will be exercised taking into consideration sustainability, resource efficiency and economic, social and environmental needs.

Equity:The management of chemicals will ensure equitable access to resources for present and future generations.

Public Participation:A coordinated and participatory approach to chemicals management will be enhanced to ensure that the relevant government agencies, county governments, private sector, civil society and communities are involved in planning, budgeting, implementation and decision-making processes.

Subsidiary:The management of chemicals will be through decentralization and devolution of authority and responsibilities to the lowest level possible.

Precautionary Principle*:* Where there are credible threats of serious or irreversible damage to key environmental resources, lack of full scientific certainty will not be used as a reason for postponing cost-effective measures to prevent environmental degradation**.**

Polluter Pays Principle*:* The polluter and users of chemical resources shall bear the full environmental and social costs of their activities.

Right to Information and knowledge*:* Appropriate information and knowledge should be made available and utilized as appropriate including, scientific information, chemical safety, use of chemicals and their hazards.

6.2 Approaches

International Cooperation:Multilateral Environmental Agreements and regional instruments will be domesticated and implemented cooperatively for better management of chemicals.

Good Governance:Rule of law, effective institutions, transparency and accountability, respect for human rights and the meaningful participation of citizens will be integrated in chemicals management.

Integrated Stakeholder Participation**:** In view of competing needs and demands for the limited natural resources, holistic approaches will be employed for the collaboration in sustainable sound chemical management.

Community Empowerment:Communities will be involved in decision making and empowered in the implementation of such decisions.

Gender Mainstreaming:a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of the policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is notperpetuated.

***Circular Economy*:** alternative to the traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them while in use, then recover and regenerate products and materials at the end of each service life.

***Extended Producer Responsibility*:** In the field of waste management, extended producer responsibility is a strategy to add all of the environmental costs associated with a product throughout the product life cycle to the market price of that product.

7.0 SCOPE OF CHEMICALS POLICY

This ChemicalPolicy has a broad scope covering, but not limited toagricultural and industrial chemicals, including environmental, economic, social, health and labour aspects of chemical safety and security.

Action areas include promote innovation, production,riskassessment and reduction; worker's safety, informationandhazard data generation;trade, transport and trans-boundary movement; disposal of hazardous wastes,storage, emergency preparedness, responsible care, liability and compensation in case of chemical accidents; and monitoring.

8.0 POLICY FORMULATION PROCESS

The process of formulating this policy was initiated in 2009 by the then Ministry of Environment and Natural Resources through a participatory and a consultative process that involved public and key institutions engagement with taskforces from various stakeholders within the academia, non- governmental organizations, interest groups, national government ministries and departments, county governments and private sector organizations. This culminated in the production of the Draft National Chemicals Management Policy, 2020.

In developing this National Chemicals Policy (NCP), the Ministry of Environment and Forestry (ME&F) pursued a consultative approach, which included;

(a) Workshops for stakeholders to identify key chemical issues and challenges facing the country held in 2009;

(b) Development of Kenya National chemical profile, which defines national sound chemicals management goal and objectives to ensure that it is anchored in all sectors of society developed in 2014;

(c) Stakeholder consultations under the Ministry's Chemicals and Waste activities[3];

(e) International Meetings[4] attended by the inter-ministerial team endeavoured to establish synergies and areas of complementarities with relevant national and international chemical and policies and initiatives under the initiatives of IOMC through the study of national implementation for SAICM[5];

(f) Participation by relevant regional and international instruments to inform the national chemical policy under Multilateral Environmental Agreements that Kenya either party or signatory to including the Vienna, Basel, Rotterdam, Stockholm and Minamata Conventions.

(g) A multi-sectoral expert technical review working group to and update the draft National Chemicals Management Policy, 2020.

9.0ACTION AREAS FOR SOUND CHEMICALS MANAGEMENT

Sound chemicals managementrequires understanding of the inherent nature of chemicals, their use, entry into environment, impact to human health and environment. This includes but not limited to; education, research and awareness creation, understanding chemicals characteristics, their presence in the environment, and the role of chemicals in sustainable development.However, Kenya has inadequate tools and instruments to implement sound chemicals management. Thesemay include - risk reduction, identification of chemicals in use, hazard identification, exposure assessment, and risk characterization.

The priority areas for sound management of chemicals include:Risk Reduction, Knowledge, Information and Data Management, Governance, Institutional Strengthening and inter

[3] There are several projects under MEAS that are putting specific chemicals under scientific, policy and social review

[4]Key ones that required policy e.g. ICCM sessions, UNEP organised meetings including United Nations Environment Assembly sessions, Conference of Parties Meetings of chemicals and waste multilateral environmental agreements.

[5] SAICM is the globally recognised forum for debating on chemicals of global concern

sectoral Coordination, Partnership and stakeholder involvement, Capacity Building and Technical cooperation, Resource mobilisation, Illegal International traffic, Emergency Preparedness and Response, and Chemicals of Security Concern.

9.1 Risk Reduction

9.1.1 Reduce risk associated with exposure to hazardous chemicals

Exposure to hazardous chemicals has devastating ill health effects to human and environment. There has been increased trend of environmentally related ailments in the country that are increasing the burden on medical treatment. The major categories of chemicals include industrial chemicals, agro-chemicals, pesticides, food preservatives, and cosmetics. All these groups of chemicals pose occupational health and safety, environmental and public health risks. One of the pathways taken by hazardous chemicals into the human body is through ingestion. For example, Persistent Organic Pollutants (POPs) are highly toxic and carcinogenic chemical, which accumulate in the fatty tissue of mammals, birds and fish. POPs become more concentrated in higher ranks of the food chain, culminatingin humans. Once they accumulate to high levels, they lead to potentially serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to diseases, and damage to the central and peripheral nervous systems. Toxic chemicals present in the air also impact our health if we inhale them.

Policy Statement

The Government will:

1) *Develop and implement health promotion and protection strategies and programs for lifecycle management of World Health Organization(WHO)high priority chemicals.*
2) *Actively engage in and support the implementation of the chemicals and waste related Multilateral Environmental Agreements(MEAs).*
3) *Identify and promote reduced risk alternatives, taking into account the life cycle of substances and products, including wastes and promoting the use of alternatives in collaboration with stakeholders.*
4) *Provide guidelines and guidance on prevention of negative health and environmental impacts from specific chemicals of concern.*
5) *Develop and implement awareness programs for workers on chemicals of concern.*

6) *Develop a national strategy and action plan for the management of risks associated with exposure to hazardous chemicals.*

9.1.2.Human health and environmental risks assessments on hazardous chemicals

Inefficient industrial production processes and unsustainable consumption patterns lead to excessive waste generation. Despite efforts that encourage reuse, recycling and recovery, the amount of solid waste generated remains high and appears to be on the increase. In addition, wastewater effluents represent one of the largest threats to the quality of water resources in the country, for both cities and smaller urban areas where treatment facilities are either out-dated or non-existent. Even in areas with a degree of waste-water treatment infrastructure, some chemicals are released to the environment without sufficient treatment to minimise their toxicity. In addition, some special categories of wastes such as electronic wastes, spills from oil tankers can devastate coastal and marine ecosystems.

Research and monitoring constitute an integral component of sound management of chemicals to enhance sustainable development. Several chemicals that are deemed carcinogens, mutagens, teratogens or potential endocrine disrupting chemicals have been banned under various internationally legally binding treaties that Kenya is a party to. For such chemicals, there is urgent need for targeted research to develop chemical alternatives that are environmentally friendly. There is need for research to understand the toxic behaviour and mechanisms of toxicity of various chemicals used in industrial products and agriculture and disseminate such information to the public and the wider international community. In addition, there is need to establish routine monitoring and reporting of the status of hazardous chemicals in environmental compartments such as air, water and biological samples including human samples, which are currently lacking.

Policy statement

The government will:

1. *Promote research and innovation in technologies, green chemistry and non-chemical alternatives that are affordable and environmentally friendly.*
2. *Establish monitoring programmes for priority chemicals and adopt a framework for regular reporting and framework for translating scientific data into policy.*
3. *Build human and technical capacity of research and training institutions to address priority chemicals of concern.*

4. *Develop and/or review laws, regulations, guidelines, and strategies to tackle emerging chemicals of environmental and health concerns including antimicrobial resistance through a one health approach.*
5. *Develop regulations and guidelines to minimise exposure of chemicals to women, children, youth and the elderly in both formal and informal sector.*
6. *Strengthen chemical data management system through development of Pollutant Release Transfer, Register (PRTR).*
7. *Strengthen laboratoryanalytical capability and infrastructure for research and monitoring of hazardous chemicals.*

9.2 Knowledge, Information and Data Management

Although toxic chemicals are widely used in Kenya and are hazardous to human health and environment, the level of public awareness on the effects of these chemicals is still very low among Kenyans. Majority cannot link ill health to chemicals exposure. Further, there is low awareness related to the effects of chemicals, and the conventions that Kenya is party to.

Formal and non-formal education is important to increase awareness, improve extension services, sensitize people on chemical issues and build institutional capacities. In the absence of well-packaged chemicals information supported by empirical evidence, environment will continue to be taken for granted thus increasing the risk of degradation.

The Kenya Government needs to enhance conformity of labelling requirements with those of the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS) for dangerous Goods, consumer products, occupational health and safety/workplace use and industrial chemicals.

Policy Statements

The government will:

1. *Engage the relevant stakeholders to domesticate the GHS for dangerous Goods, consumer products, occupational health and safety/ workplace use and industrial chemicals*
2. *Sensitize the public on standards and regulations for labelling chemicals including transparent sharing of relevant data and information disclosure among all relevant stakeholders using a life cycle approach.*
3. *Promote awareness on environmentally sound management of chemicals and safer alternatives.*

4. *Strengthen research institutions to monitor the chemicals impact on human health and environment.*
5. *Promote access to knowledge and information on chemicals through organized public fora, websites and other print and electronic media.*
6. *Enhance communication on chemical hazards and safety to vulnerable groups including women, children and youth.*
7. *Create achemicals database, PRTR andportal with linkages to government agencies, SAICM, MEA secretariat and other sources of information and data on chemicals.*

9.3 GOVERNANCE

Functioning governance structures, policy and legal instruments as well as institutional capacity for judicious chemical management are critical for effective governance in chemicals.

The Environmental Management and Coordination Act (Cap 387) as a framework environment law, provides for effective coordination and regulation, of all actions directed at or liable to have influence on the sound management of chemicals. Kenya is party to the Basel, Rotterdam, Vienna, Stockholm; and a signatory to Minamata conventions.

Other pieces of legislation that is relevant to chemicals management are the Public Health Act,(Cap. 242); the Radiation Protection Act,(Cap 243); the Food, Drug and Chemical Substances Act, (Cap 254); the Occupational Safety and Health Act, 2007; the Pharmacy and Poisons Act, (Cap 244); the Water Act, 2016; Pest Control Products Act, 346; Mining Act, 2016; Standards Act (Cap 496); County Government Act, 2012; the Explosives Act, (Cap 115); the Petroleum Act (2019); the Traffic Act; and Anti-counterfeit Act (2008). These legislations are administered by different Ministries, Department and Agencies at the National and County level.

Policy Statements

The Government will:

1. *Domesticate chemical and waste MEAs that Kenya is party to and ratify those that it is signatory to.*
2. *Develop and implement criteria and regulations for classification, registration, labelling, packaging, advertisement, distribution, storage, transportation, handling,*

useand disposal of toxic and hazardous substances.

3. *Develop legislation and guidelines on hazardous, obsolete and expired chemicals forcollection, storage, recovery, recycling and disposal.*
4. *Develop guidelines on transport and disposal of toxic and hazardous substances.*
5. *Develop regulations and guidelines for chemicals management, and protection of women,children, youthand the vulnerable groups in the formal and informal sector including artisanal and small scale gold mining and light industries (jua kali).*
6. *Mainstream sound chemicals management of chemicals in development programmes at the national and county level.*
7. *Develop strategies to address the emerging chemicals and contaminants, climate change, sustainableconsumption and production, chemicals in products as well as nanotechnology.*
8. *Harmonize conflicting policies in key sectors such as water and waste water treatment, petrochemicals, wildlife, and agriculture with a view to enhancing cross- and inter-sectoral linkages in use of chemicals.*
9. *Develop mechanisms to address emerging international policies on chemicals.*

9.4 Institutional Strengthening and Inter-Sectoral Coordination Framework

Chemical's usage is broad and cuts across many sub-sectors, including agriculture, manufacturing, mining, trade, transport, water, health, services and extractives industry. The mandate of coordination and implementation of initiatives pertaining to chemicals' life cycle is spread across different Ministries, Departments and Agencies (MDAs) both at the National and County level; private sector and NGOs. This calls for cooperation and consultation among responsible government agencies and stakeholders at all levels. It is also critical to recognize the existing institutional framework and consider ways by which coordination and cooperation can be enhanced between the many actors to minimize duplication and conflicts.

Most of the institutions have limitations in terms of infrastructure, financing and human resource with requisite numbers, skills and, competencies. Thus, building a cadre of professionals in chemicals management is an investment for the future that requires immediate and long-term approach.

Policy Statements

The Government will:

1. *Strengthen the technical departments of the governments responsible for chemicals*

management.

2. *Strengthen the capacity of NEMA and its lead agencies for effective and efficient general supervision and coordination in all matters relating to chemicals management.*
3. *Streamline and strengthen the capacity of implementing institutions at the national and county levels so as to make them more effective and responsive.*
4. *Establish or strengthen partnerships and mechanisms for Inter-ministerial and inter-governmental technical cooperation to promote appropriate technologies for sound management of chemicals.*
5. *Promote responsible care in chemicals management in collaboration with the private sector and industry.*
6. *Enhance and promote networking between centres of excellence in chemicals management at the national, regional and international levels.*
7. *Mainstream gender in the sound management of chemicals across all sectors.*
8. *Develop and implement mechanisms for conflict resolution and chemical management.*
9. *Institutionalize and Support the Health and Environment Strategic Alliance (HESA) initiative collaboratively hosted at Ministries responsible for health and Environment*.
10. *Develop a multi-sectoral coordination framework with clearly defined roles and prioritize chemical pollution prevention across the sectors.*

9.5. Partnerships and Stakeholder Involvement

Partnerships represent a sustained commitment to move forward together to reach a higher common objective. To ensure an inclusive partnership and stakeholder involvement in decision making, ways must be found to ensure wide representation from across the private sector, professional societies,NGOs, academia, inter-governmental organizations and development partners and communities to ensure that their voices are brought forward. They play a central role in chemicals management.

The chemicals sector is particularly amenable to PPPs, as it can encourage industries to provide multiple opportunities for no regret investments that provide both private and public benefits. The relative concentration of the chemicals industry and the ongoing shift in chemical production and waste management from the developed to developing countries due to proportionally low labour cost as compared to energy costs in the production of chemicals providing opportunities for technical improvements through technology transfer.

Policy Statements

The Government will:

1) *Develop and implement a strategy on partnerships and stakeholder's involvement to enhance chemicals management through Public Private Partnership (PPP).*
2) *Promote investments in chemical initiatives and programmes by providing appropriate fiscal and economic incentives.*
3) *Create and actualize a stakeholder forum with specific mandates and responsibilities.*
4) *Recognise and support the role of Kenya Chemical Society as the leadprofessional organisation in chemicals management.*

9.6 Regional and International Cooperation

Effective chemicals management requires regional and international cooperation. Kenya is well placed for regional coordination in chemicals issues. Kenya is the host to UNEP which hosts the United Nations Environment Assembly (UNEA) which is recognized as global body for chemicals management.Kenya is a transit state for chemicals and waste, including hazardous waste, destined to and from the Eastern and Central African region. Significant benefits can be realized and effectiveness increased through regional and international cooperation. Private sector dealing with chemicals is well established with influence regionally and internationally.

Policy Statements

The Government will:

1) *Establish and strengthen coordination mechanisms to ensure consistent negotiations, implementation and reporting of the regional and international agreements related to chemicals management.*
2) *Harmonise national policies and legislation with regional and international chemicals management instruments.*
3) *Promote and support the establishment and implementation of trans-boundary chemicals management initiatives as a basis for enhancing collaboration through relevant regional and international instruments related to chemicals management.*
4) *Develop a framework for tracking movement of chemicals and waste in transit.*

9.7Capacity building and technical cooperation

The capacity of Kenya for sound management of chemicals is low in terms of human resources, technology, institutions, human expertise and infrastructure. Capacity building for

sound chemicals management include; identification and prioritization of capacity-building needs for relevant institutions on chemicals management; resource mobilisation from financing mechanisms of chemical MEAs; financial allocations for, research and technical cooperation; and regional cooperation on sound chemicals management.

Policy statements

The Government will:

1) *Develop training programs and modules on sound management of chemicals for different levels taking into account gender equity, emerging chemical issues and devolved institutions.*
2) *Develop infrastructure and technology to support chemicals management including laboratory capacities for chemical monitoring.*
3) *Enhance networking between various ministries, agencies, private sector, research institutions, and academia on chemicals and waste management at the national, regional and international levels.*
4) *Promote technical cooperation in building human and technical capacities at national, regional and international levels.*
5) *Promote and coordinate access to information on capacity building for the sound management of chemicals and to enhance transparency and accountability.*
6) *Include capacity building for the sound management of chemicals as a priority in social and economic development strategies, including national sustainable development strategies, poverty reduction strategy and to make chemicals an important part of national priorities in National Development Programmes.*
7) *Support stakeholders to develop and promote programmes on chemical safety and scientific research and analysis.*
8) *Conduct training, workshops and seminars to build capacity on sound chemical management.*
9) *Adopt guidelines on best practice techniques and guidance of best environment practises.*

9.8.Illegal International Traffic of Chemicals

Illegal international traffic refers to import/export and trade in banned and restricted chemicals without notification or consent of the state concerned. There is an initiative to harmonise standards and pesticide regulations among the East African Community member

states. The existing coordination mechanism for movement of chemicals and waste across borders is ad hoc.

Policy statements

The government will:

1) *Collaborate with international community in curbing illegal dumping/disposal, import/export of obsolete or banned toxic and hazardous substances.*
2) *Ensure compliance and reporting of illegal traffic under the Stockholm, MinamataRotterdam PIC Conventions procedures and the Vienna Convention/Montreal Protocol on Substances that Deplete the Ozone Layer.*
3) *Ensure environmental regulations and enforcement capacities are strengthened.*
4) *Enhance coordination between authorities enforcing relevant chemical legislations.*

9.9Emergency preparedness and response

Chemical's incidents are intentional and unintentional release of hazardous chemicals or substances to human and the environment and they demand multi-disciplinary and multi sectoral approach. Chemicals may be released to the environment through technological incidents or from effects of terrorism or impacts of natural hazards. Severe chemicals incidents can disrupt the lives of victims through injury, loss of lives and property or employment. In Kenya, every year large volumes of chemicals are used in industry and much more on transit to neighbouring countries. This calls for establishment of effective and efficient emergency preparedness and response teams. Chemical incidences include; fires, chemical spills, chemical poisoning, explosionsand burns. They have impact on humans, property and environment. At national, county and local level, response needs to be appropriate for chemicals, understanding their inherent properties e.g., flammability, reactivity, explosives etc. Follow up actions are sometimes inadequate especially on health, ecosystem, compensation and redress.

Policy statements

The government will:

1) *Formulate preventive and response measures to mitigate environmental and health impacts of emergencies involving chemicals.*

2) *Develop health system capacities by stocking state of the art equipment for Human health protection with clear mandate for institutions, human resources and adequate budgetary provisions.*
3) *Implement programmes and activities that promote education and training on chemical safety prevention, response and surveillance.*
4) *Ensure healthy environment, occupational health and safety through enforcement of existing laws and implementation of responsible care.*
5) *Establish national chemical emergency management unit within the National Disaster Operation Center to ensure that incidences arising out of exposure to chemicals are adequately handled.*
6) *Ensure all and especially small scale and informal chemical enterprises have capacity to contain chemical incidences like fires and explosions*
7) *Strengthen emergency response in case of chemical explosions, spills and transportation accidents at national and county levels.*
8) *Ensure contaminated sites are rehabilitated, restored and remediated to acceptableenvironmental safestandards and develop guidelines and standards for remediation of contaminated sites.*
9) *Establish and strengthen Poison Centers in all level 4 and above hospitals and publish their contacts.*
10) *Developing and issuing guidelines for expenses, compensation and redress in case of chemical incidences.*

9.10Chemicals of Security Concern /Dual Use Chemicals

A wide range of industrial, agricultural and veterinary chemicals are legitimately used by individuals every day throughout the country. Currently there are 96 chemicals of security concern, in some cases these chemicals have been diverted from their lawful use for other purposes, such as agents in chemical weapons in warfare and terrorist related activities. There is need to minimise the risks associated with unlawful use of these chemicals to ensure public safety and national security.

Kenya is party to the Chemicals Weapon Convention (WCW) whose secretariat is the Organization of Prohibition of Chemical Weapons and the Government Chemist Department is the National Authority. Thus it is vital that persons involved in the manufacture, importation, transportation, storage, sale and use of chemicals report any unusual behaviour

regarding the sale and/or use of chemicals to the National Security agencies. In addition, a framework for regular monitoring and reporting on the use of such chemicals in the country is necessary.

Policy statement

The Government will:

1) *Adopt and update the list of priority hazardous Chemicals of Security Concern / dual use chemical to facilitate monitoring and reporting of illegal applications.*
2) *Build capacities of national institutions and agencies to monitor, detect and identify Chemicals of Security Concern.*
3) *Domesticate the Chemicals Weapon Convention.*
4) *Develop a regulatory framework on the manufacture, importation, exportation, transportation, storage, distribution, sale, use, tracking and monitoring, and disposal of Chemicals of Security Concern / dual use chemicals.*
5) *Establish multi-sectoral capacity for identification, classification, labeling, storage, collection, transportation and destruction of hazardouschemicals of security concern in the country.*
6) *Promote awareness on the conduct of the public in cases of accidents and incidents related to chemicals of security concern.*

9.11 Financing Sound Management Of Chemicals

Sound chemicals management requires sustainable financing. Currently Government budget and the Global Environment Facility are the largest sources of financing. However, the current allocation on chemicals management is inadequate. This calls for increased budgetary allocation. In addition, there is an urgent need to complement government funding by harnessing additional funding from multilateral funding mechanisms, development partners, private sector and civil society. Resource considerations should be made early in the process to ensure realistic planning and project proposal development. Possible steps to address financial requirements include:

- Carry out financial needs assessment against possible funding sources from the private sector, international financing mechanisms and the national budgeting processes.

- Coordinate with agencies responsible for coordination of assistance from international funding agencies and bilateral partners.
- Contact the relevant international funding agencies to explore the potential for financial and/or technical assistance through ongoing programmes.
- Explore National Environmental Funds such as user charges, company self-financing, public budgets, environmental funds, commercial banks as well as grants.
- Apply for International Financing Mechanisms Funds such as Special Chemicals Programme, Multilateral grant partners including Global Environment Facility,World Bank, Africa Development Bank and International Monetary Fund.
- Encourage in kind contribution from key stakeholders.

Policy statements

The Government will:

1) *Review guidelines for receiving funds for financing chemicals management.*
2) *Enhance allocation of resources for chemicals management through the annual national budgetary allocation and prioritization in the national development plans.*
3) *Develop and implement appropriate fiscal and economic instruments to promote investments in sound chemicals management.*
4) *Mobilise funds from GEF and any other financing agencies through provisions of adequate co-financing.*
5) *Develop a guideline for environmental and economic instruments to deal with chemicals that are listed under international agreements*.
6) *Minimize subsidies and incentives on hazardous chemicals thatexacerbate chemical risks and hazards.*

10.0 INTERSECTORAL AND INTERAGENCY COORDINATION

To achieve sustainable development, it is imperative that sound management ofchemicals is incorporated in all sectors of the economy to benefit and contribute synergistically to sector wide programmes and activities. These linkages could be direct, participatory and contributory.

A framework of public policies with coordinated aims, strategies and instruments is essential in order to overcome complex problems and develop more comprehensive solutions that

correspond to the overall goal of sound chemicals management. Taking cross-sectoral impacts into account and approaching problems in a more integrated manner, are key to improving the effectiveness and efficiency of this chemicals policy, related legislation and administrative decisions and activities. Of critical importance is the inclusion of environmental considerations in sectoral policymaking and the strengthening of relevant linkages among various agencies at all levels. Such sectors include: forestry, agriculture, industry, health, wildlife and water among other sectors listed in Appendix 1.

Among the UN Partners working to achieve the SDGs are the UNDP (United Nations Development Programme), the World Bank, UNEP (UN Environment Programme), WHO (World Health Organization), FAO (Food and Agriculture Organization), ILO (International Labour Organization), and UNIDO (United Nations Industrial Development Organization) all of which are members of the IOMC.

Five important elements to mainstreaming of chemicals and hazardous waste are:

(a) National support for achieving the Sustainable Development Goals (SDGs).

(b) The SDG goals on poverty and on environmental protection could be leveraged to provide support for chemicals and hazardous wastes programmes and initiatives for all sectors.

(c) Supporting chemicals and hazardous waste programs through technology transfer, initiatives of sustainable production and consumption.

(d) Ratification of conventions and protocols on chemicals and hazardous wastes provide the basis for mainstreaming chemicals and hazardous waste for specialised areas in agriculture, industry, services and health.

(e) The national development planning process offers important entry points for mainstreaming sound management of chemicals and hazardous waste into national and local priorities, plans and programs, through institutional strategic plans.

The process to developing the National Development plans is a potential entry point for mainstreaming chemicals and hazardous wastes.

Policy statements

The Government will:

1. *Ensure crossand inter-sectoral coordination, and policy integration of SCM considerations into sectoral policies, programmes and plans.*

2. *Harmonize conflicting policies in key sectors such as water and waste water treatment, petrochemicals, wildlife, and agriculture with a view to enhancing cross- and inter-sectoral linkages in use of chemicals.*
3. *Strengthen and implement the Terms of Reference for Multi-sectoral CoordinationCommittee (Appendix 1).*
4. *Develop capacity to dispose illicit and contraband goods in an environmental sound manner.*
5. *Develop a national chemicals management and pollution prevention strategy.*
6. *Harmonize chemicals management with the country's economic blueprint Vision 2030.*
7. *Mainstream sound chemicals management considerations into the national and county development planning, budgeting and decision-making processes.*
8. *Strengthen the Multi-sectoral Coordination Committee to support monitoring and evaluation on sound management of chemicals.*

11.0PLAN OF IMPLEMENTATION

This policy was conceived to be implemented through existing institutional arrangements to strengthen engagement and implementation of sound management of chemicals and chemicals related MEAs. Progress will be reviewed andmonitored at national and county sessions.

The Government will develop an Implementation Strategy and Action Plan for this Policy, involving a range of both Government and non-government stakeholders in order to define the various roles and responsibilities. Developing this Plan will provide an important step towards ensuring that the actions outlined in the Policy are addressed systematically and effectively.

The Implementation Strategy and Action Plan will also emphasise priority areas and performance measures for the actions and initiatives outlined in the Policy, which can then be used to evaluate the overall progress towards effective and efficient sound management of chemicals to protect human health and the environment.

Policy statements

The Government will:

1) *Develop an implementation strategy and action plan for this policy.*
2) *Develop chemicals management indicators on sound management of chemicals*
3) *Monitor the implementation strategy and action plan for this policy.*

12.0 MONITORING AND EVALUATION

The Government recognizes the importance of monitoring the implementation of this Policy and evaluating the related outcomes to achieve sound management of chemicals. It is important to prioritize continuous Monitoring and Evaluation (M&E)to report progress and changes on strategies, plans and actions onsound management of chemicals. The M&E system will coordinate inputs from different stakeholdersat national and county levels.The M&E process will be harmonized withthe Constitution, relevant chemical legislations, MEAs, SDGs, Vision 2030 and other applicable laws.

Policy statements

The Government will:

1) *Develop an M&E plan that will monitor the implementation of this policy.*
2) *Coordinate reporting from relevant stakeholders at national and county levels.*
3) *Communicate progress on implementation of the policy, facilitate and provideupdates.*

REFERENCES

1. GOK: Statistical Annex to the Budget Speech for the Fiscal Year 2009/2010
2. MEandF92007): National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants
3. Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal. 1988. (http://www.basel.int/)
4. NEMA. State of Environment. 2005
5. Kenya Government (1), Situation Analysis on Sound Management of Pesticides in Kenya. 2008
6. Statistical Abstracts (Central Bureau of Statistics) 2007
7. The Montreal Protocol on Substances that Deplete the Ozone Layer http://www.unep.ch/Ozone
8. The Stockholm Convention on Persistent Organic Pollutants. 2002. http://www.pops.int
9. The Strategic Approach to InterNational Chemicals Management (CHEMICALS) (2006) http://www.chem.unep.ch/chemicals/
10. www.nema.go.ke.
11. World Bank. Making Sustainable Commitments: An Environment Strategy for the World,Bank.2001.http://web.worldbank.org/
12. Global Plan of Action
13. National Environment Policy, 2014
14. CoK 2010
15. Kenya Vision 2030

GLOSSARY OF TERMS

“biodiversity” means the variability among living organisms from all sources including ecosystems and the ecological complexes of which they are a part. Accordingly, biodiversity encompasses three levels: ecosystem diversity, species diversity and genetic diversity;

“chemical” means as defined in Environment and Management Coordination Act (Cap 387) i.e.a substance in any form whether by itself or in a mixture or preparation, whether manufactured or derived from nature and for the purposes of this Act includes industrial chemicals, pesticides, fertilizers and drugs;

“community ”refers to a clearly defined group of users, which may, but need not be, a clan or ethnic community. These groups of users hold a set of clearly defined rights and obligations;

“Corporate philanthropy” – voluntary measures undertaken by the private sector to provide benefits not only to their shareholders but to other stakeholders, such as in compliance with corporate responsibility. This will be encouraged especially with substitution with less toxic substances and non-chemical alternatives.

“Corporate responsibility” – aligning commercial interests with social interests, through promoting a longer-term view of profit, incentivizing investment in socially responsible areas, and/or using regulation and economic instruments to make it commercially attractive to engage in activities that promote social benefit.

"ecosystem" means a dynamic complex of plant, animal, micro-organism communities and their non-living environment interacting as a functional unit;

"Environmentimpact assessment”means the definition assigned to it under the EMCA;

"intra-generational equity" means that all people within the present generation have the right to benefit equally from the exploitation of the environment, and that they have an equal entitlement to a clean and healthy environment;

“lead agency” means any government ministry, department, parastatal, state corporation or local authority, in which any law vests functions of regulating, control or management of any element of environmental natural resources.

“multilateral environment agreement” means international legal instruments for the regulation of activities affecting the environment particularly wildlife resources to which Kenya is a party.

“One health” means an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent.The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.

“Service provision” – directly using public funds to engage the private sector in undertaking activities where the private sector has superior expertise or resources, that are economically sustainable but have high start-up costs, or that otherwise can only be achieved by partnership such as in issues of phase out of lead on paint or petrol chemicals, biodegradable plastics, human exposure monitoring.

“species”means a population of individual organisms capable of mating with one another and producing fertile offspring in a natural setting and that share common and specialized characteristics from others;

“stakeholder”refers to an individual or group having a vested interest in environment and natural resources

“Sustainable use” means present use of natural resources, which does not compromise the ability to use the same by future generations or degrade the carrying capacity of ecosystems and habitats;

Appendix 1

MULTISECTORAL COORDINATION COMMITTEE ON SOUND CHEMICALS MANAGEMENT(MCCSCM)

1. Background

The Kenya Constitution (Article 42) entitles every citizen to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations. Chemicals are part and parcel of all forms of development sectors including agriculture, manufacturing, services, mining, health and energy, which are key pillars in achievent of the Kenya development agenda such as Vision 2030. Sound chemicals management is a critical determinant for clean and healthy environment and key in achievement of sustainable development goals(SDGs).

Chemicals can be flammable, corrosive, reactive, carcinogenic, mutagenic and teratogenic among other negative effects. They are the major contributers to deterioration of working environment including ambient air, water and soil pollution, when they are not properly managed throughout their life cycle. This calls for a coordination mechanism amongst the various sector players in chemicals management.

2. Framework for Sound Chemicals Management

The Strategic Approach to International Chemicals Management (SAICM) provides a framework for understanding the economic contribution of chemicals as well as their inherent risk while Multilateral Environmental Agreements (MEAS) on chemicals and waste require that national, regional and global actions be taken on specific chemicals, their formulations and products as well as waste streams. The Policy Paper on Environment and Development (2014) recognises the role of chemicals in national development as well as the risks they pose

to environment and natural resources. Therefore, mainstreaming chemicals management into development processes is important to ensure that developers and policy makers understand the linkages between chemicals and waste management in relation to human health, development activities and poverty reduction programmes.

3. Internationally controlled Chemicals And Wastes

Toxic and hazardous chemicals regulated under the Montreal, Rotterdam, Basel, Minamata and Stockholm Conventions are not produced in Kenya, and their importation, export and use is not specifically tracked. However, their presence in environment poses risk to populations.

Challenges include:

- Inadequate enforcement of standards for imported chemicals,
- Use of chemicals banned or restricted elsewhere, including in their countries of origin,
- Use of chemicals who's long lasting residual effects is not scientifically determined,
- Mismanagement and uncontrolled use of chemicals where users are poorly informed of the possible harmful effects and where handling by unqualified persons may lead to poisoning,
- Lack of compliance with formulation procedures, labeling, storage, transportation and application guidelines.

4. Elements for Sound Chemicals Management

The international best practice for sound chemicals management identifies the following basic elements:

(a) Legal frameworks that address the life cycle of chemicals and waste;

(b) Relevant enforcement and compliance mechanisms;

(c)Implementation of chemicals and waste-related multilateral environmental agreements, as well as health, labor and other relevant conventions and voluntary mechanisms;

(d)Strong institutional frameworks and coordination mechanisms among relevant stakeholders;

(e) Collection and systems for the transparent sharing of relevant data and information among all relevant stakeholders using a life cycle approach, such as the

implementation of the Globally Harmonized System(GHS) of Classification and labeling of Chemicals;

(f) Industry participation and defined responsibility across the life cycle, including cost recovery policies and systems as well as the incorporation of sound chemicals management into corporate policies and practices;

(g) Inclusion of the sound management of chemicals and waste in national health, labor, social, environment and economic budgeting processes and development plans both at National and County level;

(h) Chemicals risk assessment and risk reduction through the use of best practices;

(i) Strengthened capacity to deal with chemicals accidents, including institutional-strengthening for poison centers;

(j) Monitoring and assessing the impacts of chemicals on health and the environment;

(k) Development and promotion of environmentally sound and safer alternatives.

5. Roles and Responsibilities of the Inter-Sectoral Coordination Committee on Chemicals Management

The main functions of the proposed inter-sectoral coordination committee will be to:

a. Promote collaboration and partnership among the stakeholders.
b. Promote awareness and advocacy on sound chemicals management.
c. Promote data collection, analysis, information, best practices sharing and knowledge management to inform decision making.
d. Promote capacity building among the chemical management stakeholders.
e. Prepare joint multi-sectoral project concepts and implementation of activities.
f. Evaluate and promote innovative solutions for sustainable sound chemical management.

Membership of the Committee

Government and Key Lead Agencies and Sectors

1. Ministry of Environment and Forestry,
2. Ministry of Health (Public Health)
3. Ministry of Industry, Trade and cooperatives
4. Ministry of Agriculture, livestock Fisheries and Irrigation
5. Directorate of Occupational Safety and Health Services
6. Council of Governors
7. Ministry of Interior and Coordination - (NDOC)
8. Government Chemist Department
9. Ministry of Water, Sanitation and Irrigation
10. Ministry of Energy
11. Ministry of Mining and Petroleum
12. Ministry of Education/ Universities
13. Kenya Revenue Authority
14. Kenya Bureau of standards
15. Kenya Association of Manufacturers
16. National Environment Management Authority
17. Pests Control Products Board
18. Anti-Counterfeit Authority
19. The National Treasury
20. The Attorney General Office

Specialized and other Sectors

1. Pharmacy and Poisons Board
2. Kenya Chemical Society
3. Agrochemicals Association of Kenya
4. Water Resources Authority

Enablers/Specialized Sectoral agencies

i) Kenya Ports Authority
ii) Kenya Medical Research Institute
iii) Kenya Industrial Research and Development Institute
iv) Federation of Kenya Employers

v) Radiation Protection Board

vi) KEPHIS

vii) Poisons Centre – KNH

viii) KENTRADE

Universities

i) University of Nairobi- Chemistry Department

ii) United States International University - Africa

iii) Jomo Kenya University of Agriculture and Technology

iv) Maseno University

v) Moi University

vi) Masinde Muliro University of Science and Technology

Table 1. Responsibility for chemicals management by government agency on chemicals life cycle

Agency/ Ministry	**Import**	**Production**	**Storage**	**Transport**	**Distribution Marketing**	**Use/ Handing**	**Disposal**
Environment	******	✓	✓	✓			x
Health	X		✓	✓	x	✓	x
Agriculture	✓	✓	✓	✓	✓	✓	×
Labor		*******	✓			✓	*****
Trade/Industry	✓	✓	✓	✓	✓	✓	*****
National	✓						

Treasury							
Transport				✓			
Interior/Defense	******		*******	******		******	******
Academia			*****			******	*****
Customs	✓						
Foreign Affairs							
Government Chemist			*****			******	******
Research Institutions	*****		*****			******	******
Other							

Chair/Co-chairs:

The Chair of the committee will be Ministry of Environment and Forestry and co- chaired by Ministry of Health and Kenya Association of Manufacturers..

The Secretariat of the committee shall be drawn from the Ministry of Environment and Forestry.

Mandate of the Committee:

To support implementation of the Kenya National Chemicals Policy by working on a systematic and coherent framework for sound chemicals management and provide overarching approach and strategies that facilitate linkages between different sectors.

8.0 OPERATIONALIZATION OF THE COMMITTEE.

1. Committee set up at theMinistry of Environment and Forestry
2. Working groups formed

The NCMCC shall establish two (2) working groups with expertise in specific areas.

a) Policy and legal frameworks working group
b) Technical working group composed of representatives from all relevant institutions and other stakeholders (NGO, industry, farmers, waste disposal and recycling etc.).

3: Work plan drawn and working groups assigned responsibilities.

The NCMCC shall prepare and review its own work plan for approval by the Cabinet Secretary ME&F.

4: Meetings of the committee

The NCMCC shall meet at least once per quarter in a calendar year.

5: Operationalization of the NCMCC

Operations of the NCMCCM will commence on upon a high-level national launch of the Committee by CS MoEF.