National Hazardous Waste Management Policy, 2022

MINISTRY OF CLIMATE CHANGE

GOVERNMENT OF PAKISTAN

Islamabad, Pakistan

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FOREWORD

The National Hazardous Waste Management Policy, 2022 will be a milestone achievement in addressing the issue of hazardous waste management in Pakistan. The policy instrument will enable Pakistan to play a pivotal role in meeting the obligations under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. In addition, it would also help Pakistan achieve the relevant Sustainable Development Goals and avail extension of the European Union's GSP Plus status post - 2023.

Hazardous waste is a threat to public health and the environment and therefore, needs to be regulated both at the global and national levels. Hazardous waste issues cut across national boundaries due to their import & export and thus has become a huge global pollution crisis, especially for developing countries like Pakistan. Due to the growing incidence as a national crisis as well as international challenge, the Ministry of Climate Change has formulated a comprehensive national level policy through a broader consultative process involving relevant line Ministries and Departments both at the Federal and Provincial levels, Academic and Research Institutions, NGOs as well as private sector organizations including industries.

The policy underscores the significance of a life cycle approach to manage hazardous waste from its generation to disposal in an environmentally sound manner. It provides measures for controlling transboundary movement of hazardous waste, managing contaminated sites, institutional capacity building, monitoring & reporting mechanisms, and sustainable financing options. It also outlines an institutional structure comprising of an implementation committee, a technical committee, and a central directorate. An action plan will also be devised upon the approval of this policy which will set timelines to achieve goals and targets contained in the policy. It is also expected to further strengthen the coordination mechanism between the Federal and Provincial stakeholders.

It gives me immense pleasure to announce that this policy document is a dynamic document and will be reviewed and updated regularly to address the current and future issues of hazardous waste management in Pakistan.

Senator Sherry Rehman
Federal Minister
Ministry of Climate Change

List of Acronyms and Abbreviations

AJK	Azad Jammu and Kashmir
BAT	Best Available Techniques
BEP	Best Environmental Practices
CSOs	Civil Society Organizations
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESM	Environmentally Sound Management
FBR	Federal Board of Revenue
FPCCI	Federation of Pakistan Chambers of Commerce & Industry
GB	Gilgit-Baltistan
GSP	Generalized Scheme of Preferences
HW	Hazardous Waste
HWM	Hazardous Waste Management
ICW	International Cooperation Wing
IEE	Initial Environmental Examination
IPO	Import Policy Order
MBIs	Market Based Instruments
MEAs	Multilateral Environmental Agreements
MoCC	Ministry of Climate Change
NDMA	National Disaster Management Authority
NEQS	National Environmental Quality Standards
NGOs	Non-Governmental Organizations
OHS	Occupational Health & Safety
PPPs	Public-Private Partnerships
PEPA	Pakistan Environmental Protection Act
PEQS	Provincial Environmental Quality Standards
SOPs	Standard Operating Procedures
TMA	Tehsil Municipal Administration
TSDF	Treatment, Storage, and Disposal Facilities

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Formulation of National Hazardous Waste Management Policy, 2022

The National Hazardous Waste Management Policy, 2022 is formulated in the manner as follows:

A policy to facilitate the implementation of international treaties & Conventions on a national level to improve the definition & implementation of Hazardous Waste Management (HWM) for better environmental management, clarify institutional responsibilities related to HWM, and strengthen the management of hazardous & other wastes.

Whereas matters mentioned above are pivotal for reducing environmental pollution;

And whereas as defined under the Federal Legislative List, Part I, Entries No.3 and 32 read with Article - 70(4) of the Constitution of the Islamic Republic of Pakistan, 1973, which gives the Federation the jurisdiction to make laws relating to the 'implementation of international treaties and Conventions.' However, the 18th Constitutional Amendment has significantly transformed the governance structure in the country, particularly concerning the environment and sustainable development. Prior to the enactment of the 18th Amendment, Pakistan Environmental Protection Act (PEPA) 1997 governed all operations and activities related to the protection of environment, including the implementation of international Conventions. On the one hand, the Constitution (Eighteenth Amendment) Act 2010 gives provincial governments exclusive powers to legislate on the subject of 'environmental pollution and ecology.' Hence, provincial governments have the task of formulating their own environmental legislation ahead of them. On the other side, there is no mechanism - post 18th Amendment - that allows for the Provincial-Federal interaction regarding the implementation of international Conventions which address the issue of Hazardous Waste (HW).

Therefore, it is expedient for the Ministry of Climate Change (MoCC) to formulate a National Hazardous Waste Management Policy to integrate all relevant sectors for compliance with Multilateral Environmental Agreements (MEAs) on Hazardous Waste Management. This Policy will act as an umbrella to address the issue of Hazardous Waste (HW) and systemize all relevant departments and other stakeholders to take legal and institutional steps to control the pollution crisis of HW in the country.

SECTION I

Preliminary

1. Short Title, Application and Commencement -This Policy may be called the National Hazardous Waste Management Policy, 2022.

It shall apply to all matters of the hazardous and other waste of the Federation and all other matters of the Federal Government connected with or ancillary thereto.

It shall come into force at once.

2. Definitions - In this Policy, unless there is anything repugnant in the subject or context:

(i) "broker" means a person who arranges collection, recycling, recovery or delivery of waste between parties and may even buy or sell waste themselves.
(ii) "**Basel Convention"** means the United Nations Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

(iii) "circular economy" means a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.
(iv) "contaminated site" means a site where there is a confirmed presence, caused by human activities, of hazardous waste at such level(s) as to be considered as posing a significant risk to human health or the environment.
(v) "co-processing" means the use of waste materials in manufacturing processes for the purpose of energy or resource recovery or both and resultant reduction in the use of conventional fuels or raw materials or both through substitution.
(vi) "disposal" means any operation which does not lead to reuse, recycling, recovery, utilization including co-processing and includes physico-chemical treatment, biological treatment, incineration and disposal in secured landfill.
(vii) "Environmentally Sound Management" means taking all practicable steps to ensure that Hazardous Waste are managed in a manner which will protect human health and the environment against the adverse effects which may result from such waste.
(viii) "Extended Producer Responsibility" means a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products.
(ix) "Federal Government" means Ministry of Climate Change.
(x) "generator" means any person whose activity produces Hazardous Waste, if that person is not known, the person who is in possession and/or control of that waste.
(xi) "hazardous waste facility" means any establishment wherein processes like treatment, storage, reuse, recycling, recovery, pre-processing, co-processing, and disposal of hazardous waste are carried out.
(xii) "hazardous waste unit" includes generator, transporter, recycler, storage facility, treatment facility or disposal facility.
(xiii) "hospital waste" includes waste medical supplies and materials of all kinds, and waste blood, tissue, organs and other parts of the human and animal bodies, from a clinic, laboratory, dispensary, pharmacy, nursing home, health unit, maternity center, blood bank, autopsy centre, mortuary, research institute and veterinary institutions, including any other facility involved in health care and biomedical activities.
(xiv) "importer" means any person under the jurisdiction of the State of import who arranges for hazardous waste or waste to be imported.
(xv) "license" means a written decision delivered by the designated authority approving the operation of a hazardous waste management facility and/or activity, subject to certain conditions which guarantee that the facility or activity complies with all the requirements established.
(xvi) "manifest system" means the system used for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of disposal, treatment, or storage.
(xvii) "other wastes" means waste that belong to any category contained in Annex II of the Basel Convention. Annex II mainly contains waste collected from households and residues arising from the incineration of household waste.
(xviii) "permit" means a written decision delivered by the designated authority approving the operation of a hazardous waste management facility and/or activity, subject to certain conditions which guarantee that the facility or activity complies with all the requirements established.
(xix) "recycling" means reclamation and processing of hazardous or other waste in an environmentally sound manner for the originally intended purpose or for other purposes.

(xx) "reuse" means use of hazardous or other waste for the purpose of its original use or other use.
(xxi) "recovery" means any operation or activity wherein specific materials are recovered.
(xxii) "storage" means storing any hazardous or other waste for a temporary period, at the end of which such waste is processed or disposed of.
(xxiii) "Sustainable Development" means development that meets the needs of the present generation without compromising the ability of future generations to meet their needs.
(xxiv) "transboundary movement" means any movement of hazardous waste or other waste from an area under the national jurisdiction of one State to or through an area under the natural jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.
(xxv) "treatment" means a method, technique or process, designed to modify the physical, chemical or biological characterizes or composition of any hazardous or other wastes so as to reduce its potential to cause harm.
(xxvi) "TSDF"- Treatment, Storage and Disposal Facility - means a common facility identified and established individually or jointly, occupier, operator of a facility or any association of occupiers that shall be used as common facility by multiple occupiers or actual users for treatment, storage and disposal of the hazardous and other wastes.

SECTION II

Policy Imperatives

3. Rationale - Importance of formulation of NHWM Policy, 2022 in the country stands on sound rationales:

(a) Pakistan is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Minamata Convention on Mercury. Being a responsible state Pakistan must formulate the NHWM Policy to incorporate the relevant provisions of these Conventions to fulfill its international obligations.
(b) GSP remains an effective Foreign Policy tool for the European Union (EU), and thus the EU is a proponent of its continuation post 2023. Compliance with the above international Conventions is also required by the EU for availing the next phase of GSP Plus status post 2023. Therefore, the formulation and implementation of NHWM Policy is crucial at this stage to take advantage of this opportunity beyond 2023 which will strengthen the economy of Pakistan by maintaining and even increasing its exports volume to the EU countries.
(c) Pakistan is facing an alarming issue of dumping of waste from developed and some developing countries. Absence of a clear policy direction and weak enforcement of other legislation on ban of import of HW has escalated this issue in Pakistan.
(d) Pakistan being an agricultural country is also making progress in industrial sector. Resultantly, chances of pollution of HW due to poor management have increased. Environment and public health are in danger. To protect the public health and environment is the sole responsibility of the Government of Pakistan. Therefore, pragmatic steps are needed to manage the menace of HW.
(e) Cost and benefit analysis and practices in developed countries have revealed that the management of HW at source is more cheap and easy practice than to clean the environment from hazardous waste. Therefore, it is high time to take action for

preventing, controlling and environmentally sound disposal of hazardous waste before investing on its cleanup.

(f) Poorer section of the society has more and direct dependency on the natural environmental resources. The pollution of the natural resources due to hazardous waste contamination affect the quality of these environmental resources and in turn, adversely affect the health and living conditions of people in general and poorer section or disadvantageous group of the society in-particular.

4. Policy Goal

The Environmentally Sound Management of Hazardous Waste in Pakistan, in keeping with the provisions of the relevant MEAs, to safeguard public health and the environment.

5. Policy Scope

(a) The definition of Hazardous Waste for this Policy is derived from the definition of 'hazardous waste' of the PEPA, 1997 and the hazardous characteristics enlisted in Annex III of the Basel Convention, which is:
"Hazardous Waste means any waste which, by reason of its chemical activity is toxic, explosive, flammable, corrosive, radioactive, poisonous, infectious or other hazardous characteristics causes, or is likely to cause, directly or in combination with other matters, an adverse effect to human health and/or the environment". This Policy does not address those radioactive waste which are covered under the Regulations on Radioactive Waste Management, 2019 of Pakistan Nuclear Regulatory Authority.

(b) The import of hazardous waste is prohibited for disposal purposes within all areas under Pakistan's jurisdiction. However, the import of hazardous waste shall allow for reuse, recycle, recovery and co-processing purposes in a manner which ensures the protection of human health and the environment.

(c) This Policy will contribute directly to sustainable development and improving quality of life of people by taking environmentally sound measures for prevention, minimization, control of HW generations, import, export & transit, proper recycling, treatment & disposal of such waste and rehabilitation of hazardous waste contaminated sites through effective cooperation among government agencies, private sector, civil society and other stakeholders.

(d) Ministry of Climate Change will review this Policy after every three years. Policy will be amended according to the priorities of national objectives and Hazardous Waste Management issues raised at the sub-regional, regional and international levels which are of importance to Pakistan.

6. Policy Objectives - This Policy on Hazardous Waste Management has the following objectives:

(a) To facilitate the implementation of the relevant provisions of the Basel Convention, the Stockholm Convention and the Minamata Convention at national level;

(b) To prevent, minimize and control hazardous waste being generated in the country;

(c) To control the transboundary movements of hazardous waste;

(d) To create an enforcement mechanism through effective regulatory framework and monitoring, inspection & verification system;

(e) To build capacity of all relevant stakeholders for Environmentally Sound Management of hazardous waste in Pakistan.

7. Guiding Principles

(a) The Source Reduction Principle- generation of waste shall be minimized in terms of its quantity and its potential to cause pollution in conformity with Article 4, paragraph 2 (a) of the Basel Convention;

(b) The Proximity Principle – ensuring the availability of adequate disposal facilities as close to the place of production as possible;

(c) The Precautionary Principle – considering the costs and benefits preventive measures shall be taken to control those releases to the environment of substances, waste or energy which are likely to cause harm to human health or the environment;

(d) The Standardization Principle - which requires the provision of standards for the ESM of hazardous waste at all stages of their processing, treatment, recovery, and disposal;

(e) The Least Transboundary Movement Principle – Transboundary movements of hazardous waste shall be reduced to a minimum consistent with efficient and ESM of hazardous waste in conformity with Article 4, paragraphs 2 (b) and 2 (d) of the Basel Convention;

(f) The Principle of Sovereignty - the import of hazardous waste will be banned into Pakistan for disposal purposes;

(g) The Polluter Pays Principle - the potential polluter must act to prevent pollution and those who cause pollution pay for remedying the consequences of that pollution;

The Principle of Public Participation - in all stages, waste management options are considered in consultation with the public as appropriate, and that the public has access to information concerning the management of hazardous waste.

SECTION III
The issue of HWM in Pakistan and its Regulatory Framework

8. The Issue of Hazardous Waste Management in Pakistan

(a) There is no systematic mechanism in Pakistan for the collection and disposal of hazardous waste generated from hospitals, industries, transport, energy, mining, and agriculture activities. In practice, local authorities are handling and disposing of significant quantities of HW, often without any consistent procedures, and sometimes with no knowledge of the serious problems they may create.

(b) Industrial pollution is a major problem in Pakistan. The minimal response of industry to hazardous waste is mainly due to the poor performance of the sector, lack of information about new technologies and high investments required for changing the processes coupled with weak regulatory mechanism. Industries dispose of their effluents into nearby streams, rivers, lakes and agricultural fields, which on the one hand cause diseases and on the other degrade the overall water quality. The major industries among them include inorganic and organic chemicals manufacturing, pesticides manufacturing, textiles, pharmaceuticals manufacturing, tanneries, cement, electrical equipment, glass and ceramics, pulp and paper, and petroleum refining.

(c) The Rules for Hospital Waste Management has been prepared and notified by the then Ministry of Environment in 2005, giving detailed information and covering all aspects of safe hospital waste management in the country. However, its enforcement remains a matter of concern. There are no systematic approaches to medical waste treatment & disposal in the country. Hospital waste are simply mixed

with the municipal waste in collecting bins at roadsides and subsequently disposed of. Some wastes are simply buried without any appropriate measure. A common practice in Pakistan is the reuse of disposable syringes. People pick up used syringes from the hospital waste and sell them out.

(d) Plastic waste's imports into Pakistan have shown an exponential growth in the past few years. According to a study on "Plastic waste management in Pakistan: baseline report, 2020", Pakistan has been importing plastic waste from different parts of the world with an average annual tonnage of around 46,000 tons. In between 2012-2020, Pakistan imported plastic waste of total worth US$ 115 million. In 2017-2018 alone, more than 80,000 tons of the plastic waste was imported. These imported plastic scrap contains higher amount of contamination residuals, pest dumps, germs & infections, pesticides and food particles, including many other hazardous chemicals and additives. The local plastic manufacturers, for instance, use imported hazardous plastic scraps and waste to produce finished plastic goods and articles. These scraps are not tested for contaminants before being cleared for manufacturing. This is a clear violation of the Import Policy Order put in place by the Government. In-addition, this violates the Basel Convention, which draws out the scope of end-of-life plastic products containing contaminants and constituents that fall under hazard class 6 and 9 of the Convention; those are to be sent back to the country where the plastic waste was imported from.

(e) Despite being a party to the Basel Convention, Pakistan is being used by many developed countries around the world as a dumping ground for their e-waste, which creates environmental and health hazards. According to United Nations University, Bonn, Germany, there is no inventory or exact data on e-waste generation in Pakistan; however, many such items are being imported to Pakistan as secondhand products. One of the studies has attempted to estimate illegal annual average import of e-waste to Pakistan of around 954,000 tons (mostly computers and related products). Similarly, according to the study on "Plastic waste management in Pakistan: baseline report, 2020", Pakistan also generates around 30 million tons of solid waste a year, which has been increasing at a rate of more than 2 percent annually. These types of waste and products contain significant quantities of hazardous substances which contaminate the general waste and make it hazardous in nature. Moreover, the information on the quantity of the generation of HW from other sectors in the country is deficient, because Pakistan has yet to conduct the first level generation inventory of hazardous waste in the country.

9. Prevailing HWM Regulatory Framework in Pakistan - The principal legislative instrument catering to the management of HW in the country is the Pakistan Environmental Protection Act, 1997 which placed emissions & effluents restrictions and import restrictions on hazardous waste. Section 11 of the PEPA, 1997 prohibits the discharge or emission of any effluent or waste that exceeds the amount, concentration or level defined in the National Environmental Quality Standards (NEQS). However, specific standards under this Act for many of the hazardous waste values are still wanting. Nonetheless, some of relevant standards, rules and guidelines have been formulated which cover a few aspects of life cycle management of HW, such as:

- National Environmental Quality Standards (NEQS)-Pakistan for Municipal and Liquid industrial Effluents and Gaseous Emissions, 2001.
- Hospital Waste Management Rules, 2005.
- Guidelines for Disposal of CFLs Light Bulbs, 2010.

- Sectoral Guidelines for Environmental Reports, Major Chemical &Manufacturing Plants, 1997.
- Self-Monitoring and Reporting by Industries Rules, 2001-Amended
- Environmental Samples Rules, 2001.
- Pollution Charge for Industry (Calculation and Collection) Rules, 2001.

Similarly, Section 13 of the PEPA placed a ban on the import of hazardous waste into Pakistan and its territorial waters, Exclusive Economic Zone and historic waters. While by its Section 31 "Power to Make Rules", the Federal Government may, by notification in the official Gazette, make rules for carrying out the purposes of this Act including rules for implementing the provisions of the international environmental agreements, specified in the Schedule to this Act including the Basel Convention. After decades of this legislation, nothing has been formulated for the implementation of MEAs on hazardous waste.

The 18thAmendment, however, has undermined the operation of the provisions of this Act. But since the subject of import and implementation of international treaties is a federal matter, therefore the Federal Government has jurisdiction over the legislation for the effective implementation of international agreements and treaties related to Hazardous Waste Management (HWM).

10. Regulatory Framework for HWM Enshrined in the Present Policy - Article 4(4) of the Basel Convention requires the Parties to take appropriate legal, administrative, and other measures to implement and enforce the provisions of the Convention. This Policy will, therefore, direct a comprehensive environmental regulatory framework to manage hazardous waste in the country. However, authority and powers to regulate and legislate environment and ecology have been devolved to the provincial governments in the 18th Constitutional Amendment. Therefore, the necessary legislations, regulatory framework, implementation mechanism, roles and procedures shall be developed in close consultation with the Provincial Governments.

11. Policy Measures - The necessary regulatory framework on hazardous waste will make Environmentally Sound Management operational that shall include:

(a) Development and adoption of necessary by-laws, rules, regulations, in close consultation with relevant public and private stakeholders for the implementation of MEAs' provisions relevant to HWM.
(b) The regulations on HW shall specifically include provisions on; responsibilities of key stakeholders (including authorities, hazardous waste generators, carriers, dealers, brokers and management facilities); transboundary movement; prevent and punish illegal traffic; waste hierarchy control i.e., Reduce, Reuse & Recycle (3R); technical and organizational requirements; hazardous waste collection, storage & transportation; Occupational Health & Safety and environmental requirements; environmental liability and insurance; product policies, including extended producer responsibility schemes; permitting, licensing and certification schemes; civil and criminal penalties for non-compliance, incentivizing voluntary schemes and access to information by the public.
(c) Regulatory definition of HW and its proper classification system or process shall be established that identifies specific substances known to be hazardous and provides objective criteria for including other materials in the regulated hazardous waste universe`.

(d) Other relevant provisions shall be included by the regulatory regime for necessary measures mentioned in respective sections of this Policy document.

SECTION IV

Transboundary Movement of Hazardous Waste

12. Relevant provisions of the Basel Convention- Provisions of several Articles {4 (5), 6, 7, 8, and 11} of the Basel Convention address conditions and requirements for transboundary movement of HW. Policy measures for transboundary movement are given for four separate circumstances i.e., import, export, transit and illegal traffic of HW. Waste dealers and brokers shall ensure that the waste they buy and sell shall be managed in such a way that ESM is assured. They shall have an understanding of proper implementation of and compliance with the Basel Convention for transboundary movements of hazardous waste.

13. Policy Measures

(a) Federal Government shall prohibit the import of hazardous waste for disposal purposes, but for reuse, recycle, recovery and co-processing purposes, they shall allow it in a manner which ensures the protection of human health and the environment.

(b) Federal Government shall prohibit or not permit the export of hazardous waste to those countries which have prohibited the import of such waste.

(c) Restrictions on the import & export of hazardous waste shall be integrated in respective legislations of the relevant government agencies.

(d) Custom Authorities shall be sensitized to develop and adopt an appropriate scanning mechanism, considering best international practices, for HW containers to ensure transparency and traceability of hazardous waste shipments.

(e) Federal government shall ensure proper record and maintenance of data for import, export, transit, and illegal traffic of HW.

(f) The development of new regulatory framework for HWM shall specifically include provisions for:

i. Development and adoption of detailed Standard Operating Procedures (SOPs) for transboundary movement of hazardous waste. These SOPs shall comply with the relevant Prior Informed Consent (PIC) procedure of the Basel Convention.
ii. Appropriate packaging and labeling of the shipment of hazardous waste.
iii. Appropriate documented custodial trail to be made available for each waste shipment undertaken.
iv. Procedure for adequate environmental insurance and financial guarantees.
v. Preventing and punishing Illegal traffic of HW.
vi. In case of illegal import of waste, the importer shall be required to re-export the waste in question at his cost under the supervision of concerned Port and Custom Authorities.

SECTION V

Environmentally Sound and Efficient Hazardous Waste Management System

14. Hazardous Waste Prevention, Reduction & Minimization - Ideally, the generation of hazardous waste should be avoided altogether, as it is clear from the experience in industrialized countries with strong controls on hazardous waste that it is possible to eliminate certain waste and make major reductions in others. The Basel Convention also requires from parties to implement obligations related to reduction in the generation of hazardous waste to a minimum. Therefore, to ensure the Environmentally Sound Management of Hazardous Waste, this Policy will provide measures for the standard waste management hierarchy i.e., prevention, reduction, minimization, reuse, treatment, recycling, other types of recovery, including energy recovery, and final disposal. Waste prevention and minimization will be the preferred option in this Policy. By not generating waste and by ensuring that the waste generated are less hazardous, the need to manage waste and/or the risks and costs associated with doing so are reduced.

15. Policy Measures

(a) Promote the adoption of cleaner production, 3R (Reduce, Reuse and Recycle) and Environmental Management System for the prevention, elimination and minimization of hazardous waste.
(b) Encourage industries to adopt feasible processes and green technologies including Best Available Techniques & Best Environmental Practices (BAT & BEP) on regular basis to ensure cleaner or greener design and production. The pollution prevention and control technologies shall be consistent with international good practices as reflected in internationally recognized standards.
(c) Minimize the waste generated, by ensuring research, investment in design, innovation and development of new products and processes that use fewer resources and energy and that reduce, substitute or eliminate the use of hazardous materials.
(d) Specific working groups under the HW Technical Committee shall be formulated to explore the possible options and opportunities for reduction and minimization of the hazardous waste in an environmentally sound manner through product and process innovation.
(e) Sensitize and encourage industries to adopt the concept of circular economy in their production and processes.
(f) Waste generators shall aim for production that prioritizes the use of recovered or recycled materials; enables and encourages recovery of energy and resources at the end of the useful life of a product; and avoids additional pollution burden from waste management of end-of-life products.
(g) The formulation of new legislation/regulation shall ensure that industries are required to follow the packaging and labeling schemes for the classification of hazardous waste for proper identification.
(h) Promote alternate green chemicals, less harmful pesticides and fertilizers.
(i) Promote eco-labelling and awards programme for best environmental practices to promote environmental innovation and design.

(j) Take necessary measures to integrate Hazardous Waste Management concerns into national Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE) processes.

16. Reuse, Recycle, Treatment and Disposal of HW - Prevention, however, will not solve all the problems associated with HWM. Some wastes are already, or will inevitably be, generated. Hence, such waste that when prevention and minimization possibilities have been exhausted then reuse, treatment, recycling and recovery techniques should be adopted to deliver the best overall environmental outcomes, in accordance with the BAT & BEP and a life-cycle approach. Reuse, recycling, and reclamation are ways of managing hazardous waste which, if properly conducted, can avoid environmental hazards, protect scarce natural resources, and reduce the nation's reliance on raw materials and energy.

17. Policy Measures

(a) Technical guidelines for the reuse, recycle, treatment and disposal of each kind of hazardous waste subjected to the Basel Convention shall be prepared and adopted. The technical guidelines for different kind of hazardous waste as provided by the Basel Convention may also be reviewed/amended by the HW Technical Committee, if necessary, and shall be adopted accordingly (Appendix-I).
(b) Technical guidelines formulated/suggested by the HW Technical Committee shall be enforced by the concerned EPAs in close coordination with the relevant ministry/department at federal or provincial level.
(c) Specific working groups under the HW Technical Committee shall be formulated to explore the possible options and opportunities for reusing, recovery, treatment, recycling, and disposal of the hazardous waste in an environmentally sound manner.
(d) Concerned EPAs in close collaboration with respective Health Departments shall ensure that city governments & concerned TMAs follow the Hospital Waste Management Rules notified by the concerned governments (federal and provincial) for safe disposal of hospital waste.
(e) If the options for reuse, recovery, or recycle exhausted for a waste then depending on the category of that waste, possible options for physico-chemical/biological treatment, incineration, or any other mode of safe and environmentally sound disposal will be adopted.
(f) Waste generators will be responsible for the final disposal of their waste in an acceptable manner. The disposal options provided by the Basel Convention in its lists for disposal operations in Annex IV A may be adopted by the generators.
(g) Academia, research institutions will be required to develop their management plans/guidelines for hazardous waste generated at their research laboratories.
(h) Industries will reprocess or appropriately incinerate date-expired pesticides either through dedicated incinerators of individual industries or through incinerators available with common integrated facilities.
(i) Pakistan shall ratify and implement the comprehensive Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships aimed to achieve the goal of maintaining the "green" nature of ship-breaking as an industry.

18. Collection, Storage and Transportation of HW - Efficient Hazardous Waste Management system includes strict measures governing the collection & storage of hazardous waste at the generator's site or at any other transfer or disposal facility. Similarly, regulations before the transport of HW are equally essential to ensure safe

transportation of HW from the point of origin to the ultimate disposal site. Therefore, formulating new legislation/regulation shall include below measures for the safe collection, storage and transportation of hazardous waste:

(a) The hazardous waste shall be properly segregated from non-hazardous waste and stored in containers, tanks, or containment buildings. Safe and closed containers must be kept closed and marked with the date on which hazardous waste accumulation began. Tanks and containers are required to be marked with the words "Hazardous Waste".
(b) The HW to be transported must be packaged and labeled according to category or type of HW.
(c) The transport agency must employ and use safe and closed container for the transportation of HW.
(d) The vehicles, pipelines and equipment for the transportation of HW shall be in a state as not to cause the scattering of, or emitting of noxious smells from the waste.
(e) Government, producers, and retailers shall coordinate and develop integrated citizen-friendly take back systems in order to achieve effective collection and management of HW such as, household HW, expired medicines, tyres, and e-waste.

19. Infrastructure for Treatment, Storage, Disposal and Testing Facilities - Standard physical infrastructure for HWM is required if such waste have to be recycled, treated and disposed in an environmentally sound manner. Waste management facilities that handle hazardous waste should meet all the basic requirements to ensure ESM and commit to continual improvement in their operations.

20. Policy Measures

(a) Encouraging the establishment of privately owned and operated hazardous waste common treatment, storage facilities and/or disposal site near to industrialized regions.
(b) Projects for such infrastructure must be approved after a study under Private Public Partnerships (PPPs) near to the important urban centers/industrialized regions, where the HW generation is prominent.
(c) Private sector will be invited to participate under PPPs for the construction and operation of such facilities. Necessary resources from the side of the government and support of bilateral and multilateral development agencies will also be provided for construction and operation of such facilities. Long-term operation of such facility shall be run by charging the HW generators.
(d) Guidelines will be prepared for the selection of site for such facilities and their operation. The whole life cycle of the facility shall be covered, from planning and construction of a facility to its operation and subsequent dismantling or site remediation (in the event of accidents or spills during operation) or site clearance at end of life, as appropriate.
(e) Encourage and facilitate those private sector entities which possess high temperature standardized incinerators and/or physico-chemical and biological treatment technologies who wish to get involved in hazardous waste treatment/disposal as a component of the company's operation.
(f) Existing (government or private) testing facilities in the country shall be strengthened and upgraded for hazardous waste testing, while new testing facilities shall be developed and accredited as necessary.

(g) Customs departmental laboratory shall be strengthened with needed human resources and technology for checking the imported hazardous waste.
(h) Industries shall ensure availability of technical human resource for supervision, assistance, and monitoring of HWM activities in the industries.

21. Environment Pollution Control from HW Units - Hazardous waste units including TSDF sites have the potential to generate hazardous leachate and air emissions that can pose a serious threat to soil, surface water, ground water, air, human health and the environment. Sufficient measures must be in place to protect the environment from this kind of pollution.

22. Policy Measures

(a) HW units shall install unit controls to prevent leachate and emissions from escaping into the environment.
(b) Apart from NEQS/PEQS, standards of emissions and effluents from various sectors of industries shall also be formulated with permissible limits of the hazardous waste load and concentration.
(c) HW units will be driven to compliance with the emission and effluent standards with the enforcement mechanisms of the Pollution Control Certificate (PCC) and the terms and conditions attached to it.
(d) Formulate and enforce operating standards that use a combination of different technologies and good operating practices to detect, contain, and clean up any leaks that might occur.
(e) Strict monitoring and system of pinching penalties shall be established in new formulated legislation in case of non- compliance.

23. Risk Identification and Management of Contaminated Sites - Improper handling or disposal of HW, either intended or accidental, can result into contamination of environment. Many sites, particularly the largest and more severely contaminated are needed to track at the national level, but many others are also required to track only at province or local levels. Regulations on HWM and cleanup of contaminated sites are two major tools of the HWM Policy for environmental protection.

24. Policy Measures

(a) Collaborate with the private sector and other interest groups on the identification of stockpiles of hazardous waste and the recycling or final disposal of such waste.
(b) Develop criteria for identification and characterization of contaminated sites using human health and environmental risk assessment techniques.
(c) Based on criteria developed, identify contaminated sites and sites suspected to be contaminated with HW (based on historical and current information of activities undertaken at the sites).
(d) Require that testing/monitoring programmes be instituted for all contaminated sites (detailed; ongoing) and suspected sites (initial programme to ascertain whether the site is contaminated; nature and extent of the contamination).
(e) In partnership with the private sector, establish and maintain an up-to-date electronic database of all hazardous waste contaminated sites locally.
(f) Develop cleanup SOPs including options for managing the risks regarding already existing contaminated sites.

(g) Require polluters of sites to bear the full cost of the remediation/ rehabilitation and/or closure of such sites as well as ongoing public health and environmental monitoring, where necessary.
(h) Ensure restricted access by the public to contaminated sites.

SECTION VI
Licences, Monitoring and Reporting Mechanism under ESM of Hazardous Waste

25. Licenses and Permits for HW Units -The permitting, licensing or authorization of facilities and activities are essential for ensuring the ESM of Hazardous Waste. Therefore, the formulation of new regulatory framework shall ensure necessary provisions for below-mentioned measures**:**

(a) HW facilities will be required to obtain permission from the concerned Environmental Protection Agency, in the form of an operating permit, which establishes the administrative and technical conditions under which waste at the facility must be managed. Such permits cover the full range of TSDF standards, including general facility provisions, unit-specific requirements, closure and financial assurance standards, and any applicable ground water monitoring and air emissions provisions. A unique Identification (ID) number shall be assigned to each registered facility in this regard.
(b) The concerned Environmental Protection Agency will have the power to issue or deny permits while, Federal Government and concerned EPAs both will be responsible for verifying that facilities are operating in compliance with the conditions set forth in that permit Owners and operators of facilities that do not comply with permit provisions are subject to possible enforcement actions, including financial penalties.
(c) Any transport agency will also have to be registered and obtain permission for the transportation of hazardous waste including for the timing and routes of transport. Persons or entities who transport waste shall have a license or be registered as a waste carrier according to the legal provision. The transport agency shall ensure adequate installations for intermediary storage, when applicable.
(d) There shall be a permitting/licensing requirement for workers at hazardous waste facilities at all levels. Potential operators will need to demonstrate the necessary technical, financial, and managerial capabilities before issuance of a permit/license to operate.
(e) Brokers dealing in HW shall be required registration with the concerned federal or provincial authorities.
(f) To comply with the Standardization Principle, hazardous waste units will have to obtain the Pollution Control Certificate as well.
(g) Procedure for obtaining permits, license and Pollution Control Certificate shall be made available.
(h) Encouraging voluntary third-party environmental certification procedure, which may include an applicable Environmental Management System (EMS).
(i) Mechanism for fines and penalties shall be in place for any violation in the above requirements.

(j) There shall be a set up for an effective HW units audit and inspection regime to ensure that they comply with applicable legislation and hold corresponding licenses/permits/certificates as appropriate.
(k) Current license/permit holders for import of waste shall obtain fresh license/permit after adoption of any new rules/regulations/SOPs under this Policy.

26. Monitoring and Reporting Mechanism for HW Units - Monitoring of HW units to verify their compliance status is a tool of enforcement. A system should be in place to monitor the performance of the waste management operations, for both record-keeping purposes and to detect discharges, releases, and accidents, and to take appropriate action if performance does not comply with targets. Monitoring should be analyzed and reviewed at regular intervals to provide information for decisions needed to improve the process and reduce potential impacts on environment and human health.

27. Policy Measures

(a) Concerned EPAs will be responsible for the periodic monitoring of HW units. An action plan for monitoring will be developed and this will be presented to the HW Technical Committee for suggestions and approval in principle.
(b) Federal government will have an overall responsibility, or the lead, for conducting the inspection. The inspection will include a formal visit to the units, a review of records, taking of samples, and observation of operations.
(c) It will be necessary to involve the accredited laboratories to take samples during the monitoring and to analyze the samples in case of any complaints.
(d) HW units will prepare and submit regular self-reporting on the type and quantity of HW generated, stored, transported, recycled, treated, or disposed with necessary proofs.
(e) The HW units shall ensure an adequate and transparent monitoring, reporting, recording and evaluation program which covers;
    - Relevant legal requirements, including key process parameters;
    - Records of incoming, stored and outgoing waste;
    - Effluents and emissions standards;
    - Compliance with applicable safety requirements;
    - An adequate emergency plan and response mechanism;
    - An adequate plan for closure and aftercare, which includes the identification and remediation of contaminated sites;
(f) HW units shall monitor and control any discharges from the site to air, water and soil.
(g) HW units shall provide information on pertinent measures it has adopted relating to hazardous waste management.
(h) HW units and other stakeholders will provide the concerned EPAs with information on accidents, which have occurred during the movement and disposal of hazardous waste.
(i) Federal government will conduct periodical inventories of hazardous waste at the national level. It will ensure that available data transmitted in the annual national reports to Basel Convention's Secretariat is of the highest quality.

SECTION VII

Human Resource Development, Research, OHS and Information Dissemination

28. Human Resource Development for HWM- Realizing the importance of knowledge and skill needed for the proper management of HW, Government should promote necessary Human Resource Development for HWM.

29. Policy Measures

(a) Encourage educational institutions to develop and implement courses or programmes, in collaboration with standard international educational institutes, geared towards increasing the institutional and technical capacity of the country (increasing the cadre of professionals) to manage hazardous waste generated locally in an environmentally sound manner.
(b) Develop the curricula to include material to facilitate increased capacity for ESM of hazardous waste at the secondary and tertiary levels.
(c) Provide national and international trainings and support to the concerned officials and experts working in the field at relevant Ministries and Agencies (i.e., MoCC, EPAs, MoC, Custom Officials) to further enhance their knowledge and capacities on HWM issues.
(d) Explore and provide training opportunities to enhance capacity for preparing projects and programs in the HWM area.
(e) Trainings on international best practices that are practicable in Pakistan for HWM shall be provided to the private organizations, industries, hospitals, and service sector.
(f) Promote the training programme and certification for personnel involved in the collection, storage, transportation of hazardous waste, to ensure employees have an appropriate level of awareness, competency and training with respect to the effective management of occupational risks, including the effective management of hazardous waste.
(g) Develop and implement public and sector-specific education and awareness programmes, including campaigns, on the ESM of hazardous waste.
(h) Develop the necessary public education and awareness material and tools to communicate issues related to the ESM of hazardous waste, including issuance of notices on contaminated sites.
(i) Encourage consumers to advocate for and purchase 'green products' in order to minimize hazardous waste generation.
(j) Encourage consumers to dispose of household & commercial hazardous waste in an environmentally sound manner.
(k) Encourage the public to be vigilant in identifying and reporting Hazardous Waste Management practices which are not environmentally sound.

30. Research and Development - Research and Development will be promoted and encouraged in the following related areas:

(a) Problem solving researches and adaptation research relating HWM technologies.
(b) Knowledge Based Management and networking with strategic HWM research establishments at international level to ensure benefits from international scientific advancements.

(c) Research on effective measures and actions to develop specifications for recycled materials to facilitate their reuse in replacing virgin materials in various industrial and commercial products.
(d) Inventory of suitable disposal approaches and methods for cleanup of contaminated sites in the country.
(e) National universities and research institutes shall be supported on HWM relevant researches.
(f) Encourage engineering universities to establish industrial hazardous waste assessment and monitoring centers at engineering universities based on an innovative business model through private sector intervention.

31. Occupational Health and Safety Matters - Sufficient measures shall be in place to safeguard OHS, including:

(a) Measures which meet the requirements of any national OHS legislation/regulations.
(b) Appropriate actions shall be taken to address significant actual and/or potential risks to the health and safety of the public and of workers, based on a risk assessment, and to correct deficiencies that have been identified, including contingency arrangements in the event of plant breakdown or accidental spillages.
(c) The personnel involved in the collection, transportation or storage of hazardous waste will be provided with:
    - Adequate protective and safety clothing;
    - Adequate appropriate equipment or facilities for loading the waste;
    - Safe and secure sitting facilities in the vehicles used for transporting waste;
    - Victims shall be covered under social security compensations and shall be provided full treatment in case of any accident.
(d) The personnel involved in the collection, transportation or storage of waste will be medically checked up on appropriate intervals and present a medical report of fitness.
(e) HW units and transport agencies shall ensure availability of Programme to implement emergency preparedness and response plans in coordination with local disaster management authorities when an emergency occurs on-site at the unit or off-site during transportation.

32. Information Dissemination and its Outreach - HWM depends on the broadest possible information sharing among relevant stakeholders regarding generation, collection, storage, transportation, recycling, treatment and disposal of HW. Information should be easy to understand and use for tracking and management of HW, and relevant to the local situation.

33. Policy Measures

(a) HW units will disclose information on generation, storage and disposal of waste and that related to the use of hazardous chemicals and substances, their risks in products and waste and their management inside and outside.
(b) HW units will be encouraged to publish report on their performance in the general media so that general public are aware on how they are moving ahead besides the required reporting by the government.
(c) Awareness raising shall also be carried out more vigorously on the impacts of hazardous waste and chemicals including pesticides.

(d) A "Waste Information Exchange Window" is needed be developed, because information on industrial waste exchange is a direct service to industry that puts waste producers in touch with the waste users for the purpose of recycling/reusing these materials back into manufacturing processes. The goal of the exchange is to minimize waste disposal expenses and maximize the use of such by- products with reuse value. Institutions, like the Federation of Pakistan Chambers of Commerce & Industry (FPCCI) and Associated Chambers of Commerce & Industry of Pakistan may develop these "Waste Information Exchange Windows", collectively or individually, for the benefit of their member industries.
(e) A "Hazardous Waste Manifest System" shall be designed and implemented to track hazardous waste from the time it leaves the generator facility until it reaches the off-site waste management facility that will store, treat, or dispose of the HW.
(f) Inventory, monitoring or audit reports shall be disclosed on the websites of concerned EPAs or Ministry of Climate Change to ensure availability of information to public.

SECTION VIII
Sustainable Financing Mechanism

34. Policy Measures - The Environmentally Sound Management of Hazardous Waste requires sustainable financial instruments to be developed in close consultation and coordination with relevant federal, provincial governments, ministries, departments, autonomous institutions and public and private partnerships. Fiscal and financial incentives are equally important to achieve Environmentally Sound Management of Hazardous Waste. Incentives are typically provided to encourage investment in process innovation and development of TSDF sites. In-addition, exploration of national resources as well as international financial resources is also necessary for the implementation of NHWM Policy measures. This shall include:

(a) Encouraging financial institutions to provide low interest loans to private sector entities to establish businesses which are focused on the Environmentally Sound Management of Hazardous Waste.
(b) To invite private sector including industry, civil society organizations to launch Joint Ventures and PPPs to achieve HWM.
(c) To utilize economic and Market-Based Instruments embodying the principle of granting economic incentives, tax rebates, reduced tariffs, tax concession, subsidies etc. for the compliant, clean and green industry in order to manage HW soundly.
(d) Encourage through offering incentives (green credits or other schemes) for voluntary measures taken by the private sector to manage HW such as Extended Producer Responsibility and Best Management Practices.
(e) Special credits/low interest loans/subsides will be offered for the establishment of HWM system and industrial up-gradation or adoption of green technology. Trade barriers will be removed for the import of clean and green technology.
(f) National resources as well as international financial resources (international funds from multilateral and bilateral sources) shall be explored and mobilized to support implementing the objectives and strategic priorities of the NHWM Policy.
(g) Apply discharge fees for the discharge of hazardous effluent based on the type, volume and loading of the effluent in accordance with the existing NEQS/PEQS and any new standards established.

(h) Industries generating HW in excess of the quantity declared through the Environmental Audit Statement each year or in the Manifest System for disposal of HW will be penalized to pay fines, for which the Government has to fix some norms, so that it acts as a deterrent to submission of false information.
(i) Recognize 'Polluter Pays Principle' with introduction of environmental taxes for industry to promote HWM in order to enhance the baseline of environmental financial framework.
(j) Provide incentives (investment allowance' and 'depreciation allowance') to encourage industries for developing TSDF or incineration facility for their HW.
(k) Give incentives (including duty concessions, grants, soft loans) to the private sector, where possible, to assist in the restructuring of their production processes to facilitate the minimization of hazardous waste generation.
(l) Offer incentives to private sector entities and civil society groupings to establish programmes for promoting reuse and recycling of HW.
(m) Put forward economic and other incentives to informal sector to formalize the activities or transform them with the objective to ensure protection of human health and the environment, including incentives to send the collected waste to registered management facilities.

SECTION IX
Implementation Arrangements for HWM Policy

35. Development of an Action Plan –Following the adoption of National Hazardous Waste Management Policy, the Federal Government will develop an "Action Plan" in close consultation with the provincial governments. The relevant federal and provincial environmental protection agencies including local government departments will devise their own strategies, plans and programs for implementation of the concerned Policy measures as will be decided in the Action Plan.

To ensure effective Policy implementation and to oversee progress in this regard, a National Implementation Committee for NHWM Policy, a Technical Committee on Hazardous Waste, and a Central Directorate for "Chemical & Waste" shall be established at the federal level. Ministry of Climate Change will report on the implementation status of National Hazardous Waste Management Policy to the Prime Minister Committee on Climate Change. MoCC as a responsible institution for reporting to the relevant MEAs will also ensure its annual national reporting on measures taken for the implementation of these MEAs.

36. National Implementation Committee for NHWM Policy - A National level Implementation Committee for NHWM Policy will be constituted for the implementation of the Policy measures. The Committee will be chaired by the Federal Minister of MoCC, while the Joint Secretary (International Cooperation) of MoCC will serve as the secretary/convener of this Committee. Secretaries or representatives from the following ministries and organizations will be the members of this Committee:

- Ministry of Climate Change,
- Ministry of Industries & Production,
- Ministry of Commerce,
- Federal Board of Revenue,

- Ministry of Finance,
- Ministry of National Food Security & Research,
- Ministry of National Health Services Regulation & Coordination,
- Ministry of Science & Technology,
- Ministry of Foreign Affairs,
- Ministry of Planning, Development and Special Initiatives,
- Ministry of Energy,
- Ministry of Federal Education and Professional Training,
- Ministry of Information and Broadcasting,
- National Disaster Management Authority, Provincial Environment Protection Departments including GB and AJK,
- Provincial local government departments including GB and AJK,
- Chambers of Commerce and Industries,
- Civil Society Organizations,
- Other co-opted members, when needed.

37. Role of the National Implementation Committee - This Committee will review the progress of overall actions at the federal & provincial levels, including the formulation and enforcement of new legislations and regulations. The Committee shall meet biannually. Detailed tasks of the Committee shall include:

(a) To ensure development of effective strategies, action plans and frameworks for implementation of the Policy;
(b) To oversee progress on implementation activities;
(c) To ensure monitoring and evaluation on implementing pathways;
(d) To ensure stocktaking on progress regarding enforcement of Policy measures;
(e) To scale up national efforts, mechanisms and control systems for effective implementation;
(f) To conduct mid-term review of the Policy at the intervals of every one and a half years;
(g) To recommend the findings and recommendations of mid-term review for incorporation in the Policy with approval of the competent forums. ;
(h) To review and decide on the findings and recommendations of the Technical Committee on HW and Special Working Groups under it, on ESM of hazardous waste, referred by the National Implementation Committee;
(i) Any other TOR assigned to the Committee.

38. Technical Committee on Hazardous Waste - A Technical Committee on HW will be constituted and notified by the Federal Government. The Technical Committee will work as an advisory body which will have representation from important stakeholders. All the members of the Committee must have the background of science & technology, environment and Hazardous Waste Management. The Central Directorate for "Chemical & Waste" will serve as a Secretariat to the Technical Committee. The Head of the Central Directorate for "Chemical & Waste"/Chemical Section, IC Wing as a Secretary of this Committee, will bring technical difficulties or problems to this Committee for resolution.

Technical Committee will be chaired by the Joint Secretary, ICW/Focal Point of the Policy. The Committee will consist of the following members:

- Representatives from relevant Ministries like Ministry of Industries & Production; Ministry of National Health Services Regulation & Coordination; Ministry of

National Food Security & Research; Ministry of Science & Technology; Ministry of Law & Justice, Ministry of Planning, Development and Special Initiatives and Ministry of Commerce;

- Representatives from Federal Board of Revenue (FBR), Federation of Chambers of Commerce and Industries, Drug Regulatory Authority of Pakistan and National Disaster Management Authority; Experts from academia and NGOs/CSOs;
- Relevant experts from all EPAs and MoCC including Head of the Central Directorate for "Chemical & Waste".
- Other co-opted members, when needed.

39. Central Directorate for "Chemical & Waste" - A Directorate of "Chemical & Waste" shall be established in the Ministry of Climate Change under its IC Wing and will be given the responsibility within a period of two years. In the meantime, Chemical Section, IC Wing will be the responsible body for the implementation of the relevant measures of National Hazardous Waste Management Policy. This Directorate will also be conducting regular studies on HW and preparing the HW inventories on national level. All relevant EPAs shall also create special cells to coordinate implementation of the Policy measures with this Directorate.

The Joint Secretary, IC Wing will be the National Focal Point for the Central Directorate for "Chemical & Waste". The Focal Point and the Head of the Central Directorate will be authorized for the periodic inspection of the HW units for the verification of the authenticity of reporting of HW units. This institutional setup will strengthen the capacity of MoCC/National Focal Point for the national annual reporting to relevant MEAs' Secretariats.

Appendix-I

List of Technical Guidelines and Guidance Documents:

i. Guidance document on Environmentally Sound Management of used and end-of-life computing equipment (sections 1, 2, 4 and 5, adopted by decision BC-11/15)
ii. Technical guidelines on the environmentally sound co-processing of hazardous wastes in cement kilns (adopted by decision BC-10/8)
iii. Technical guidelines for the Environmentally Sound Management of wastes consisting of elemental mercury and wastes containing or contaminated with mercury (adopted by decision BC-12/4)
iv. Technical guidelines for the Environmentally Sound Management of used and waste pneumatic tyres (adopted by decision BC-10/6)
v. Guidance document on the Environmentally Sound Management of used and end-of-life mobile phones (adopted by decision BC-9/8)
vi. Updated general technical guidelines for the Environmentally Sound Management of wastes consisting of, containing or contaminated with Persistent Organic Pollutants (POPs) (adopted by decision BC-12/3)
vii. Updated technical guidelines for the Environmentally Sound Management of wastes consisting of, containing or contaminated with polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs) or polybrominated biphenyls (PBBs) (adopted by decision BC-12/3)
viii. Technical guidelines for the Environmentally Sound Management of wastes consisting of, containing or contaminated with 1,1,1 trichloro 2,2 bis (4chlorophenyl) ethane (DDT) (adopted by decision BC-12/3)
ix. Technical guidelines on the Environmentally Sound Management of wastes containing or contaminated with unintentionally produced PCDDs, PCDFs, HCB or PCBs (adopted by decision BC-12/3)
x. Technical guidelines on the Environmentally Sound Management of wastes consisting of, containing or contaminated with the pesticides aldrin, chlordane, dieldrin, endrin, heptachlor, HCB, mirex or toxaphene or with HCB as an industrial chemical (adopted by decision BC-12/3)
xi. Work on hazard characteristics – Approach to Basel Convention hazard characteristic H11: characterization of chronic or delayed toxicity (adopted by decision BC-7/17)
xii. Interim guidelines on hazard characteristic H13 of Annex III to the Basel Convention (adopted by decision BC7/17)
xiii. Technical guidelines on the environmentally sound recycling/reclamation of metals and metal compounds (R4) (adopted by decision BC-7/14)
xiv. Interim guidelines on the hazardous characteristic H12-Ecotoxic (adopted by decision BC-6/26)
xv. Technical guidelines for the Environmentally Sound Management of the full and partial dismantling of ships (adopted by decision BC-6/24)

xvi. Technical guidelines for the Environmentally Sound Management of waste lead-acid batteries (adopted by decision BC-6/22)

xvii. Technical guidelines for the identification and Environmentally Sound Management of plastic wastes and for their disposal (adopted by decision BC-6/21)

xviii. Technical guidelines on the Environmentally Sound Management of biomedical and health care wastes (Y1; Y3) (adopted by decision BC-6/20)

xix. Technical guidelines on hazardous waste physico-chemical treatment (D9) / biological treatment (D8) (adopted by decision BC-5/26)

xx. Technical guidelines on specially engineered landfill (D5) (adopted by decision BC-3/13)

xxi. Technical guidelines on incineration on land (D10) (adopted by decision BC-3/13)

xxii. Technical guidelines on used oil re-refining or other re-uses of previously used oil (R9) (adopted by decision BC-3/13)

xxiii. Technical guidelines on hazardous waste from the production and use of organic solvents (Y6) (adopted by decision BC-2/13)

xxiv. Technical guidelines on waste oils from petroleum origins and sources (Y8) (adopted by decision BC-2/13)

xxv. Technical guidelines on wastes collected from households (Y46) (adopted by decision BC-2/13)

xxvi. The Framework Document 1994 on the preparation of technical guidelines for the Environmentally Sound Management of wastes subject to the Basel Convention (adopted by decision BC-2/13)

xxvii. Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention,