



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title:	UPOPs Reduction and Mainstreaming of Sound Chemicals Management in Kenya		
Country(ies):	Kenya	GEF Project ID: <sup>1</sup>	
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5361
Other Executing Partner(s):	Ministry of Environment, Water and Natural Resources, Ministry of Health, NGO - The Green Belt Movement, the County Governments of Nairobi, Nakuru, Mombasa and Kisumu	Submission Date:	2014-01-23
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration (Months)	48
Name of parent program (if applicable):		Project Agency Fee (\$):	428,295
	<ul style="list-style-type: none"> <li>• For SFM/REDD+ <input type="checkbox"/></li> <li>• For SGP <input type="checkbox"/></li> <li>• For PPP <input type="checkbox"/></li> </ul>		

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
(select) CHEM-1	GEFTF	4,015,000	16,000,000
(select) CHEM-3	GEFTF	500,000	2,000,000
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
Total Project Cost		4,515,000	32,000,000

### B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Reduction of the release of U-POPs and other substances of concern and the related health risk through the implementation of ESM management of municipal waste and healthcare waste and of an integrated institutional and regulatory framework covering management and reporting of POPs						
Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Streamlining environmentally sound management of chemicals and waste into national and county development activities through capacity building of MEMWNR, MOH,	TA	1.1 Regulatory and policy framework integrating the provisions of the Stockholm convention and the SAICM recommendations, (with special reference to U-POPs from waste	1.1.1: Overall policy framework and specific regulatory measures covering environmentally sound management of POPs through life cycle management developed and	GEFTF	500,000	2,000,000

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the reference attached on the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

<sup>3</sup> TA includes capacity building, and research and development.

<p>County Governments of Nairobi, Kisumu and Mombasa and the NGOs</p>		<p>management and “new” POPs in hazardous waste) adopted and institution capacity on U-POPs and waste enhanced.</p> <p>1.2 Monitoring activities intensified and strengthened and PRTR database in place.</p>	<p>implemented.</p> <p>1.1.2: Key institutions have knowledge and skills to formulate and implement necessary chemicals and environmental policies, consistent with sound chemicals management principles and international convention requirements</p> <p>1.1.3 Key institutions have incorporated sound management of chemicals and wastes, including POPs, in their activities.</p> <p>1.1.4 National coordinating meetings on POPs held regularly (4 times per year). without GEF financial support</p> <p>1.2.1 At least 70% of laboratory analyses in research and monitoring institutions required to monitor the implementation of national policy on hazardous chemicals and wastes being carried on a cost recovery basis</p> <p>1.2.2 70% of universities nationwide include issues of hazardous chemicals and wastes, risks and legislation in curriculum</p> <p>1.2.3. PRTR Database and reporting system in place</p>			
<p>2. Introduce Environmentally Sound Management of Health care waste in selected healthcare facilities; policy and strategic plans to prepare them to adopt BAT and BEP disposal</p>	<p>TA</p>	<p>2.1 Personnel of hospital facilities and control authorities at central and county level have enough capacity guidance and equipment to manage healthcare waste in an Environmental Sound Manner</p>	<p>2.1.1 Procedures and guidelines for the assessment and implementation of hazardous waste management at healthcare facilities built on lessons and examples from the application of the I-RAT tool under GEF4</p>	<p>GEFTF</p>	<p>900,000</p>	<p>2,650,000</p>

		<p>2.2 Implementation of BAT/BEP at selected hospital facilities successfully demonstrated and measured against the baseline.</p>	<p>/UNDP projects worldwide and on the WHO bluebook “Safe Management of Wastes from Health-care Activities” developed and adopted</p> <p>2.1.2 A national healthcare waste handbook containing guidelines for HCWM drafted and officially adopted by the MOH.</p> <p>2.2.1 Hospital personnel at all level trained on the implementation of the above procedures</p> <p>2.2.1 Baseline assessment of each healthcare facility based on the assessment procedures developed in 2.1.1 carried out, and waste management plans based on the baseline assessment level drafted and implemented</p> <p>2.2.2 ESM management of healthcare waste (based on WHO bluebook) implemented in 3 facilities in each county (9 facilities)</p> <p>2.2.3 Final assessment of the healthcare facility to measure results achieved with the implementation of the ESM management against baseline is carried out and estimate amount of U-POP release avoided.</p>			
3. Demonstration of sound healthcare waste disposal technologies in a selected number of healthcare facilities in each county	TA	3.1. Feasibility analysis and procurement of ESM technologies for healthcare waste disposal completed	3.1.1 Feasibility study and term of reference for non-combustion or low-U-POPs emission technologies for healthcare waste disposal in selected hospitals or waste management facilities	GEFTF	1,750,000	7,000,000

		3.2 BAT/BEP technologies for the disposal of healthcare waste successfully established and demonstrated, with a potential reduction of U-POPs emission in the order of 20gTeq/year	<p>drafted.</p> <p>3.2.1 Demonstration and performance assessment of the technologies in the selected facilities completed (at least 3 facilities or an overall amount of waste in the order of 630t/yr</p> <p>3.2.2 Waste disposal activities of hospital facilities/programs are documented and their performance is evaluated to exemplify best practices in health-care waste management.</p> <p>3.2.3 Useful replication toolkits on how to implement best practices and techniques are developed</p>			
4. Minimizing releases of unintentionally produced POPs from open burning of waste.	TA	<p>4.1. Awareness raising and capacity strengthening on ESM management of solid waste ensured.</p> <p>4.2 Sound Management of solid waste in targeted municipalities implemented with the support of NGOs, with a reduction of</p>	<p>4.1.1 Awareness raising activities for the communities and the municipalities aimed at enhancing the reduction, reuse and recycle (R3) of waste</p> <p>4.1.2 Regulatory framework for the recovery of waste material (glass, organic, plastic) and for licensing of the recovery activity at county and central level improved to integrate SC requirements</p> <p>4.1.3. Municipalities and local authorities provided with training, manual, and technical assistance to for the management of solid wastes.</p> <p>4.2.1 Communities selected for demonstrating plans and actions for the reduction of solid waste burning by</p>	GEFTF	1,000,000	5,000,000

		<p>unintentionally produced POPs from the burning of solid waste of 80 g I-TEQ/year (20 % of the current estimate of 400 g I-TEQ/year), to be confirmed. Emergency plan to reduce exposure of population to harmful substances implemented.</p>	<p>increasing reduction, recycling and reuse of waste.</p> <p>4.2.2. Initiatives for reducing, reuse and recycle of waste and for of composting, collection of compostable municipal waste for communities in three counties of Nairobi, Mombasa and Nakuru implemented with a PPP approach and supervised with the support of NGOs.</p> <p>4.2.3. Local initiative for the re-use / recycling of other non-hazardous waste streams (i.e. plastics)</p> <p>4.3.1 Prioritization of open-burning landfills to be closed and cleaned up, emergency plans including social and resettlement issues and cleanup plans for at least 3 landfills drafted.</p> <p>4.3.2. Emergency measures for reducing release of contaminant in the environment and the exposure of the population implemented in one high priority site.</p>			
4.3 Municipal waste disposal sites with adequate management practices (non-burn).						
5. Project Monitoring and evaluation.	TA	<p>5.1. Project monitoring, including PIR, Annual and quarterly work plans, Annual and Quarterly Progress Reports,.</p> <p>5.2. Project evaluation and audit</p>	<p>5.1.1 Project steering committee established</p> <p>5.1.2 Progress report drafted and approved</p> <p>5.1.3 Work plans drafted and approved.</p> <p>5.2.1. Mid-term evaluation completed.</p> <p>5.2.2 Terminal evaluation completed</p> <p>5.2.3 Financial audit completed.</p>	GEFTF	150,000	500,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
		Subtotal			4,300,000	17,150,000

Project Management Cost (PMC) <sup>4</sup>		GEFTF	215,000	850,000
Total Project Cost			4,515,000	18,000,000

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
Other Multilateral Agency (ies)	Global Fund	Cash	3,000,000
National Government	Ministry of EWNR (including NEMA), Ministry of Health	Unknown at this stage	6,000,000
Local Government	Counties of Mombasa, Kisumu, Nairobi and Nakuru	Investment	6,100,000
Private Sector	Private Hospitals, Waste Recyclers and Handlers	Unknown at this stage	1,800,000
CSO	Green Belt Movement, ILIMA	In-kind	600,000
GEF Agency	UNDP	In-kind	500,000
<b>Total Cofinancing</b>			<b>18,000,000</b>

**D. INDICATIVE TRUST FUND RESOURCES (\$)** REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$ (a))	Agency Fee (\$ (b) <sup>2</sup> )	Total (\$) c=a+b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				0	0	0

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>**

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	Amount Requested (\$)	Agency Fee for PPG (\$) <sup>6</sup>
• No PPG required.	<u>    -- 0--    </u>	<u>    --0--    </u>
• (upto) \$50k for projects up to & including \$1 million	<u>                    </u>	<u>                    </u>
• (upto)\$100k for projects up to & including \$3 million	<u>                    </u>	<u>                    </u>
• (upto)\$150k for projects up to & including \$6 million	<u>    150,000    </u>	<u>    14,250    </u>
• (upto)\$200k for projects up to & including \$10 million	<u>                    </u>	<u>                    </u>
• (upto)\$300k for projects above \$10 million	<u>                    </u>	<u>                    </u>

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY**

Trust Fund	GEF Agency	Focal Area	Country Name/	(in \$)	
				Agency	Total

<sup>4</sup> To be calculated as percent of subtotal.

<sup>5</sup> On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

			<b>Global</b>	<b>PPG (a)</b>	<b>Fee (b)</b>	<b>c = a + b</b>
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total PPG Amount</b>				<b>0</b>	<b>0</b>	<b>0</b>

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

## **PART II: PROJECT JUSTIFICATION<sup>7</sup>**

### **A. PROJECT OVERVIEW**

**A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE THE PROJECT, INCLUDING ; 1) THE GLOBAL ENVIRONMENTAL PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED; 2) THE BASELINE SCENARIO AND ANY ASSOCIATED BASELINE PROJECTS, 3) THE PROPOSED ALTERNATIVE SCENARIO, WITH A BRIEF DESCRIPTION OF EXPECTED OUTCOMES AND COMPONENTS OF THE PROJECT, 4) INCREMENTAL/ADDITIONAL COST REASONING AND EXPECTED CONTRIBUTIONS FROM THE BASELINE , THE GEFTF, LDCE/SCCF AND CO-FINANCING; 5) GLOBAL ENVIRONMENTAL BENEFITS (GEFTF, NPIF) AND/OR ADAPTATION BENEFITS (LDCE/SCCF); 6) INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP**

Release of U-POPs (PCDD/F, HCB) from the improper management of municipal and hazardous waste is widely recognized as a global problem which may only be addressed adopting an holistic approach involving the full life-cycle of material and substances of interest. Among these, the sources of U-POPs and other toxic compounds with the greatest intensity and the greatest relative contribution to overall U-POPs emission are the uncontrolled incineration of medical waste and the open burning of waste, including at landfills. These 2 sources require both an approach based on the reduction of the amount of waste generated, proper segregation of waste, reuse and recycle whenever possible, adoption of the proper disposal technologies.

In developing countries, the main barriers that need to be addressed are both on the side of lacking knowledge and capacity for the proper management of waste at or before their origin, and on the side of lacking of financial resources and market-based mechanisms. The proper segregation of waste can even generate income for people, at least partially relieving poverty issues. On the contrary, the situation of poor people living at the waste dumpsites, collecting and segregating waste when they are already irreversibly contaminated, exposing themselves to any mixture of harmful substances and toxic fumes is common, and these people paradoxically oppose to the closure of these dumpsites being these the only source of income for them by presenting opportunities for recovery of reusable/sellable waste fractions.

Similarly, the lack of capacity of managing waste generated in the healthcare facility results in the generation of a large amount of hazardous (infectious) waste for which the only safe option is incineration; however when suitable incinerators are not available, wastes are usually burnt in the open or in “basic” incinerator with very intense release of U-POPs. The simultaneous adoption of environmentally sound management of healthcare waste at their source, and of environmentally sound treatment of reduced in volume waste stream is synergistic and mutually strengthening. Therefore, it is only with the increasing awareness of the properties of waste, their composition and their generation process, their value, and the use of proper procedure and technologies, that the problem can be addressed and the waste may finally cease to represent an hazard for the health and the environment, and start becoming a resource and an opportunity.

Very often, the improper management of waste is complicated by the lack of proper regulatory instruments and guidance. The legislation of chemical management and hazardous chemical classification is always strictly related to the proper identification and handling of hazardous waste. The implementation of Sound Chemical Management and of the Global Harmonized System for classification labeling and packaging of chemicals are therefore crucial tools not only on the chemical industry side, but also on the classification and management of waste. Monitoring capacity and PRTR (Pollutant Release and Transfer Registers) are other tools that need to be implemented for better understanding the global and local risk posed by improper management of chemicals and waste. PRTR consist of inventories of pollution from industry and other sources that have proven to be an effective tool for environmental management in many countries by

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<sup>7</sup> Part II should not be longer than 5 pages.



providing government, industry, and the public with information on releases and transfers of toxic chemicals to air, water, and land.

#### Baseline: Sound Management of Chemicals

Provisions on Sound Management of Chemicals and waste in Kenya are established by a number of regulatory acts among which the most relevant are the Waste Management Regulations, 2006 (Legal Notice No.121), the Pest Control Products Act, cap. 346, the Fertilizer and Animal Foodstuff Act, cap 345, the Controlled Substances Regulations (dealing with ODSs), 2007 (Legal Notice No.73 of 2007), the Drug and Chemical substances act, as well other regulation of more general application like the Environmental Management and Regulation Act, and the Energy Act and Petroleum rules. Most of these regulations need to be amended to ensure compliance with the Stockholm Convention, the Basel Convention and the other MEAs ratified by the country. The environmental regulatory system is far from providing an integrated and consistent framework for the management of waste, chemicals and chemical pollution in the Country.

Kenya is not a major producer of synthetic chemicals. However there is extensive extraction of minerals that contributes to manufacturing including soda ash, fluorspar, diatomite and titanium prospects. The other major source of chemicals is in their recovery from waste products, including WEEE.

About 25% overall import for the year ended April 2008 for chemicals and oil were mostly chemicals fertilizers, plastics in primary and non-primary forms. It is notable that major toxic chemicals are not relatively significant in quantity and are thus classified as in the category of all other commodities. The main manufacturing enterprises both large and small represent an estimated 6% to 8% of the GDP. The transport and energy sectors use chemicals and petroleum products and generate toxic waste through automobile service stations, garages etc. while energy sector includes chemicals used in power generation using fossil fuels, batteries, oil, refrigeration/metal treatment etc. Therefore, mainstreaming chemicals management into development process is important in understanding the linkages between chemicals and waste management in relation to development activities and poverty reduction programmes. In Table 1, figures concerning imports and exports of different category of chemicals are provided.

**Table 1. Imports and Exports of Chemicals by type**

Articles	Units	2006	2007	2008
Pigments, paints, varnishes etc	Tonnes	10,937	13,107	15,434
Soaps and cleansing preparations, perfumes	Tonnes	13,165	11,508	10,044
Waxes, polishes paste etc	Tonnes	796	374	489
Nitrogenous fertilizers	Tonnes	177,404	117,853	129,057
Phosphate fertilizers	Tonnes	2,986	10,306	14,716
Other agricultural formulations	Tonnes	299,023	216,827	331,932
Synthetic plastic materials	Tonnes	193,985	219,818	222,761
Insecticides, fungicides, disinfectants etc.	Tonnes	9,735	10,215	9,972

The Country Profile drafted in 2010 identified a number of priorities related to chemicals, among which the highest were air pollution, improper management of hazardous waste, storage of obsolete pesticides.

There have been several cases of poisoning in industries, farms and in alcohol consumption. Thus the risk associated to chemical is outstanding. Kenya has taken steps to link its SAICM concrete activities within a National “programmatic” framework for the sound management of chemicals. A number of public institutions and the private sector have established and participated in a national chemicals safety co-coordinating mechanism, while maintaining their independence to execute individual interest and projects within their mandate and competence. They need to be supported and encouraged. However it is important to address current and potential bottlenecks which include provision of chemical information in general and especially at the PCPB, at NEMA and the MEMR. A charter for inter-ministerial coordination is under development.

Establishing links between the management of the production, use and disposal of chemicals with other sectors need not be solely focused on protecting the environment and health. Economic benefits may also ensue when introducing a cross cutting issue. In this connection, Kenya has completed, with the support of

UNITAR, the SAICM QSP funded Project that developed Kenya National Chemicals Profile, Terms of Reference for Interministerial Coordination, SAICM implementation Plan and a Kenya Draft Chemicals Policy, and proposed Kenya's Chemicals Database. This will further support the implementation of the Kenya National Implementation Plan (NIP) for POPs which has prioritized the environmentally sound management of waste as important intervention.

In addition the County Government of Nairobi together with UNEP and JICA has completed an Integrated Solid Waste Management Study for Nairobi County which will provide the basis for replication in the other cities of Mombasa and Nakuru. The Greenbelt Movement has already done some groundwork in mobilizing its civil society network in preparation of this task and over 100 community based organizations in all the participating counties are eager to take part in the project.

#### Current management of health care waste disposal in Kenya

It is well known that polychlorinated dibenzo-p-dioxins and dibenzofurans, as well as PCBs and other chlorinated U-POPs, are formed and released from thermal processes involving organic matter and chlorine as a result of incomplete combustion or chemical reactions. Open burning, being a completely uncontrolled process, has among the disposal processes, the highest potential of generation of U-POPs, however also waste incinerators with no or low APCS (Air Pollution Control Systems), have the potential for comparatively high formation and release of these chemicals to the environment.

In Kenya, medical waste disposal is regulated strictly by local authorities and hospitals. The disposal of healthcare waste is regulated by the Waste Management Regulations, 2006 (Legal Notice No.121), part VI, schedule 9 and 10. The regulation specifies the standards for autoclaving and for incineration.

Incineration is the current method of choice for destruction of medical waste. The Ministry of Health (MoH) has invested large sums of money in the purchase of centralized incinerators for the management of these wastes, probably because of the highly sensitive nature of the wastes and potential health implications resulting from its poor management.

The most common way to get rid of healthcare waste in the country is by thermal treatment within the hospital or facility. However, it has been shown that incineration of medical waste in small and poorly controlled incinerators is a major practice and a potential source of PCDD/PCDF (UNEP 1999). The disposal equipment normally operates in a batch-type mode. In one of two cases, the larger centralized medical waste incineration facilities are found to operate for eight (8) hours a day, five (5) days a week. The mode of operation involves manually feeding the waste into the incinerators followed by manual removal and disposal of residues. Automatic feed incinerators were not encountered.

The disposal facility at the Kenyatta National Hospital, generating the highest quantity of waste, works for only 16 hours daily. The next best facility - Nairobi Hospital - works only for 8 hours. In Kenyatta hospital, there is a capacity to handle a higher volume if the two incinerators on site were to operate simultaneously. Currently, only one single incinerator is operated at a given time.

For Nakuru and Mombasa provinces, their situation needs to be considered in the light of all medical facilities operating outside Nairobi. There are 77 District, and about 7 private hospitals with a bed capacity equivalent to the provincial hospitals. The waste from these hospitals is disposed through combustors of varying degrees of adherence to international BAT and BEP requirements. The incinerators in the latter hospitals can be rated as low-end technology while those for the district hospitals can be classified as straight uncontrolled combustion, with no air pollution control systems installed, i.e. not different from open burning of waste. According to the estimates made using the UNEP Toolkit for calculating U-POPs emissions, open burning and incineration contribute over 67% of dioxins and furans release in Kenya. Due to the in-existent segregation of plastic, either in open burning or disposal in furnaces/incinerators, even the adopted EF of 40,000 µg TEQ/t may underestimate the actual emission of U-POPs.

Until such a time better waste disposal methods that would meet the stringent medical waste disposal requirements with social approval are in place, incineration in open burning or small furnaces will continue being the method of choice.

## Current management of municipal waste in Kenya

The Waste Management Regulations, 2006 (Legal Notice No.121) establishes a number of rules for the management of municipal waste, including provisions for licensing of collection, transportation, and running landfills. Currently, municipal wastes are placed in landfills; however landfills are in most cases not operated properly.

In city like Mombasa, only 68% of the generated waste is collected, with remaining fraction being either dumped on the road, in illegal landfills, or burnt in the open air. In the Nairobi municipality, based on UNEP data, only 25% of the waste generated in low-income area is collected. Open dumping is the only method of waste disposal practiced by the municipal council. Usually, landfills are not sanitary landfills, but only pieces of land where dumping of waste is allowed: the dumpsites of Kibarani and Mwakirunge in Mombasa, or Dandora in Nairobi are a clear example of the above. Dandora has been classified as one of the most polluted sites in the world, and being operating without any environmental protection for more than 30 years, is currently the source of a massive environmental pollution, illness, social and crime issues.

In general, there are a number of issues related to the management of municipal waste, among which the most relevant are:

- 1) The municipal councils do not have sufficient resources for waste collection and management: in most cases, trucks for waste collection are insufficient in number and in bad conditions;
- 2) Roads are very often in bad shape, making the transportation of waste very difficult or even impossible during the rainy seasons;
- 3) Private services for the collection of waste are available, however these services cannot be accessed by poor people and do not operate in low-income areas;
- 4) There is no substantial control of the landfill sites, where fires occur from time to time;
- 5) There is no segregation of waste before being dumped, and very often healthcare waste or any other kind of hazardous waste are dumped mixed together with municipal waste;
- 6) Waste “scavengers”, for which the “dumpsite economy” is the only source of income, are heavily exposed to all kinds of chemical pollutants and biological hazards (UNEP, Implication of the Dandora Municipal Dumping Site in Nairobi, Kenya); and
- 7) Being their only source of income, people living in the dumpsites relying on the “dumpsite economy” will oppose enforcement of strict regulation of dumpsites, or the closure of unsafe dumpsites.

Community Based Operators (CBOs) represent an important reality in the management of municipal waste in Kenya. There are a number of CBOs, including charitable organizations, ethnic associations, welfare societies, village committees, self-help groups, and residential (or neighborhood) associations (RAs). Majority of the CBOs are engaged in waste composting although NGOs and international organizations support CBOs through training, marketing and provision of tools and equipment, among other ways. About 55.6 per cent of the CBOs report having been sponsored or facilitated by local and international NGOs and such United Nations agencies like the UNFPA and UNCHS (HABITAT) (Ikiara et al., 2004). Important NGOs include Foundation for Sustainable Development in Africa (FSDA), Uvumbuzi Club and Undugu Society of Kenya, and the Green Belt Movement.

In summary, the management of municipal waste is at the very crosslink of relieving poverty, environmental policy, prevention of U-POPs and POPs spreading in the environment.

## Baseline project

### Sound Chemicals Management

The SAICM Implementation Plan for Kenya (2011-2014) , has as its goal the reduction of identified risks to human health and the environment due to exposure to chemicals. Risks occur in agriculture, manufacturing and common life. The plan lists specific priority risks and hazardous activities. It provides a framework with themes and actions that Kenya needs to implement to address risks posed by chemicals.

The plan proposes to strengthen national mechanisms such as policies, legislation, commissions, education

programmes, information network, etc.) to facilitate the implementation of specific chemicals management activities at the national, county and enterprise levels.

The Kenya national chemicals profile was completed in 2010. Since then the constitution has been revised putting some chemical management issues under national government and others under counties. As such the chemical profile and other documents will need to be updated. In the meantime, there have been the following developments:

- A Kenya SAICM Implementation Plan streamlining chemicals management
- Draft chemicals Policy streamlining chemicals management
- Draft proposal for a chemicals data base
- Draft Chemicals Management regulations streamlining chemicals management

The Kenya National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (2007) is being updated.(addressing new emission factors and reducing POPs emissions. The following draft guidelines and regulations have been developed under the Environmental management and Coordination Act

- E-waste guidelines,addressing the new industrial POPs
- Draft e-waste regulations addressing the new industrial POPs
- Draft air quality regulations has new requirements for incineration and open burning, requires compliance with standards on dioxin and furan emissions

The SAICM Implementation Plan (SIP) is based in the National Chemicals Profile and the technical contributions of the SAICM stakeholders during the process of capacity assessment and stakeholder consultation. The plan recognizes that all interventions of chemicals production, import, export, use, transport and disposal are all a priority in Kenya. Kenya needs to make greater efforts to integrate fully the objectives of sound management of chemicals into national budgets and development cooperation.

The link between chemical safety and sustainable development needs to be fully reflected in the normal national budgeting processes under medium Term Expenditure Framework, and multilateral project funding decisions of bilateral development cooperation agencies.

The SIP established critical links to priorities for Kenya for management of chemicals. It will offer cross-sectoral overarching objectives such as “pro-poor growth”, economic stimulus programmes or “fiscal sustainability” that involves a series of sectoral targets and measures with direct link to environment and health issues. This is an aspect that can benefit from the technical assistance of UNDP. The plan envisages the following:

- Technical level by-laws, state and municipal guidance covering waste management;
- At least 50% of laboratory analyses in research and monitoring institutions required to monitor the implementation of national policy on hazardous chemicals and wastes being carried on a cost recovery basis;
- 70% of universities nationwide include issues of hazardous chemicals and wastes, risks and legislation in their curricula.

The plan is expected to deliver the following output:

- An inter-ministerial charter, for which a detailed terms of reference has been drafted, for interministerial coordination in matters of chemicals and hazardous waste will be established;
- Increased competitiveness in the global market since products from Kenya (food, industrial manufactured goods) will meet international standards with environmentally friendly alternatives for intentionally produced and used chemicals; thus reducing UPOPs pollution and contamination to water, soil, and ecosystems;
- Improved energy efficiency, reduced emission of U-POPs, SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub> and other pollutants such as mercury, in the case of unintentional production;
- Reviewed existing legislation to make it more comprehensive in light of new international

instruments that govern chemical's and hazardous waste and risk management;

- Building capacity for institutions and agencies to enforce those regulations and implement guidelines that touch on extracted minerals, industrial chemicals, petroleum products, consumer goods and electrical and electronic waste;
- Spin-off effects concerning strong institutional management support, strengthening of environmental legal frameworks and environmental monitoring capacities of Kenya resulting from these actions.

Despite such important effort being carried out, there are still difficulties in the completing the related activities with special reference to the establishment and enforcement of an integrated chemical and waste regulation which takes into account: (1) guidance on waste classification based on their chemical composition; (2) standards on substances recovered from waste; (3) sound management of chemical waste; etc. It should also be noted that currently there are no plans for the implementation of the GHS for classification, labeling and packaging of hazardous chemicals.

#### Management of healthcare and municipal waste

For reduction of U-POPs releases the country project's strategy is to organize and bring the informal sector into the formal waste management sector through proposal contained in the integrated solid waste management (ISWMS) of 2010. U-POPs cover Articles 5 and 6 of the Stockholm Convention. According to NIP (2007) developed in Kenya:

- The major sources of U-POPs are incineration of medical wastes, open burning of municipal, and agricultural wastes and pulp and paper production. The only Pulp and paper mill in operation in Kenya is currently closed;
- There are inadequate air pollution control measures in place;
- The level of understanding of management of incinerators by the operators is generally low and need enhancement;
- There are inadequate analytical facilities and monitoring of U-POPs;
- On wastes and stockpiles, the survey established that there are significant quantities not only of stockpiles but also of POPs contaminated wastes in Nairobi, Mombasa and Nakuru where open burning has been the practice for years.

Strategy for minimization of releases of U-POPS from open burning of waste will be to ensure that the national government will enforce the existing rules of handling waste, provide for proper documentation and control of the waste disposal, ensure that the personnel handling the waste wear protective clothing (gloves, shoes) during collection, transportation and storage to reduce exposure. Activities for establishing standards and guidelines for incinerators are also envisaged.

#### Challenges to be addressed and proposed project solutions

<b>B. BARRIERS / CHALLENGES</b>	<b>Proposed project solutions.</b>
Kenya is faced with social, economic and technical challenges that will affect how well it can meet international obligations of the Multilateral Environmental Agreements ratified and also integrate and enforce its own home-grown regulations and policies on chemicals and hazardous waste.	MEAs and SAICM form a coordinated way to address risks posed by chemicals and hazardous waste to health and environment. They provide a wealth of information, research findings, and up-to-date data on technology and financial resources. By strengthening the capacity of the country in understanding, application and enforcement of the Stockholm Convention's requirements and implementation of SAICM, the project will provide the regulatory benchmarks and guidance needed to manage certain issues related to chemical and waste at the national level, and a comprehensive systematic way of addressing issues of chemical risks.  The project will build from previous work carried under the SAICM QSP to provide assistance in the implementation of the recommendations contained in the Kenya National Chemicals Profile

	<p>which are the basis of this mainstreaming sound chemicals management into development planning. As most MEAs are developed to protect human health and the environment, it is natural that the capability of mainstreaming by UNDP be focused to the health sector.</p>
<p>Regarding the specific issue of POPs, while there is clarity regarding the commitments associated with the Stockholm, Basel and Rotterdam Conventions, there is as yet limited legal clarity regarding the respective roles and responsibilities of different institutions of the Kenya Government. While hazardous chemicals are referred to in a wide range of laws and regulations, the level of emphasis accorded to different issues does not necessarily correspond to the level of importance of each in terms of risks to human health and the environment. Currently a National chemicals management Committee (NMC) meets irregularly to address specific chemical issues.</p>	<p>The project will support the development of a favorable regulatory framework for the sound environmental management of potentially hazardous chemicals (including the elimination of POPs) and the limitation of their impacts.</p> <p>It is the opportune time for this project to have components strengthening the NMC. The project will therefore support the development of legal instruments formalizing the leading role of the committee in relation to plans and decisions related to POPs management. Proposals for policy, legal and institutional guidance will be developed, discussed and promoted for modifications in existing regulatory instruments, aimed at harmonizing provisions between sectors in relation to potentially hazardous chemicals, wastes and contaminated sites and U-POPs emissions and discharges. These initiatives will be carried out within the framework of the National Policy for Chemical Management, which was developed through SAICM process and an ongoing GEF funded enabling activity in support of the NIP project will be used to facilitate the application of this policy, and mainstreaming of its recommendations throughout the plans and strategies of institutions related to POPs issues from the health and general waste sector.</p>
<p>Legislative instruments on agricultural chemicals are far more developed than those on chemicals for domestic or industrial use less so. The legislation is particularly weak in relation to the production, marketing and final disposal of hazardous chemicals and wastes. Also, existing technical guidelines covering handling, transport and storage are limited in detail.</p>	<p>This is a gap the project will seek to narrow starting with the health sector and the three county local administrations. These three provinces are important in that Nairobi holds the largest number of facilities, Mombasa is entry and exit port of chemicals and waste, and Nakuru is the centre of agricultural use of chemicals</p>
<p>Poorly developed regulatory and policy framework for the management of POPs.</p> <p>Implementation of effective corrective actions to address risks associated with POPs and hazardous chemicals in general is impeded by the absence of national policy on U-POPs emission reduction in a systematic, strategic and integrated way.</p>	<p>For sound chemicals management, tools for mainstreaming chemicals management into development activities for all sectors have been developed and will be used to promote activities that encourage national participation of all sectors. The key interventions will be:</p> <ul style="list-style-type: none"> <li>• Use of existing institutional structure to implement and expand activities in the plans and strategies;</li> <li>• Establishment of local, national and regional cooperation;</li> <li>• Integration and intersectoral approach of mainstreaming the sound chemicals management aspects into national development agenda;</li> <li>• Joint plans of action with other ministries and other government and non-governmental organizations and institutions working in Kenya on chemicals and waste management;</li> <li>• Utilizing synergy between initiatives and/or Conventions;</li> <li>• Promote the life-cycle approach as a framework for decision-making on health and environmental problems caused by chemicals and chemical</li> </ul>

	<p>waste;</p> <ul style="list-style-type: none"> <li>• Applying hazardous waste management strategies in project formulation, national budgeting and in interpreting co-financing of technical assistance offered under multilateral agreements on chemicals and wastes;</li> <li>• Adopting methods of setting priorities in risk reduction in agriculture, industries, energy and services; and</li> <li>• Research and monitoring activities for selected environmental and health priorities for chemicals in international regulatory regimes which are a concern to civil society.</li> </ul>
<p>Inadequate awareness of the nature, impacts and management of POPs. Ignorance of the identity of POPs, the health risks they pose and the options available for the reduction of these risks is widespread at all levels of society in government, private sector and the civil society.</p> <p>Domestic wastes are routinely burnt, both at household level and in municipal dumps, resulting in large-scale emissions of dioxins and furans.</p> <p>Awareness of the environmental impacts of improper practices is generally limited to the potential of burning to generate particulate matter, and the immediate toxicity of POPs chemicals rather than their environmental persistence. In addition, there is limited public awareness of the regulatory and institutional framework regarding POPs and hazardous chemicals in general as the Stockholm Convention have not been fully domesticated in Kenya.</p>	<p>The project will support the development of institutional capacities for the management and disposal of POPs and the reduction of their impacts. Several initiatives led by MEWNR and NEMA are involved in POPs issues at regulatory level; however the project will avoid excessive dispersion of effort by focusing on objectively identified institutions with key roles in relation to priority issues, and by promoting mechanisms for coordination and synergy between institutions. The key structure in this regard will be the National Management Committee (NMC) which was established during the process of formulation of the NIP.</p> <p>The project will support concrete investments in the reduction of emissions of dioxins and furans. This will be carried through joint investments with other funding agencies and the private sector for selected hospitals especially those in the public sector in the counties of Nairobi, Mombasa and Nakuru.</p> <p>The project will also establish public-private initiatives, and encourage and support the participation of NGOs which have already achieved a significant experience in the promotion of 3R approaches for the management of municipal waste.</p>

## Proposed Alternative Scenario and brief description of project outcomes, activities and indicators

### Project strategy and design

As illustrated by the above, Kenya can be described as a country that is progressively reaching a fairly stable and economic situation and which is proactively proceeding with addressing its immediate major POPs issues as well as initiating the implementation of Sound Chemical Management program. The country, being at a critical turning point of its development, needs to address urgently the main POPs issues, with specific reference to U-POPs generated during the open-air disposal of municipal and hospital waste, the lack of coordination among the authorities in charge of implementing the SC and the other MEAs, the lack of integration of the SC convention requirements into the existing regulations, and to do so in a more coordinated fashion that is integrated with the broader SCM framework being developed. This is the basic rationale for overall GEF-5 Chemical Focal Area Programmatic approach of which this project is a key part of.

The GEF support is crucial and catalytic for enhancing and completing the ongoing process of environmental law-making, as well as for providing technical and financial assistance for reducing the

amount of U-POPs generated with improper management of waste by adopting a 3R approach (reduce, reuse, recycle) in the relevant sectors, and by piloting alternative solutions for the disposal of healthcare waste, developed specifically for African countries in the course of the Global Healthcare Waste Project.

The leverage of the GEF support is significant, not only from the governmental side but also from the private sector and international donors. In the absence of the GEF involvement, the ability of the lead executing partners, namely the Ministry of Environment, Water and Natural Resources, to obtain the strong policy support from relevant authorities/agencies and co-financing funding reflected in the proposed project would be significantly reduced.

In addition, due to the complexity of the issues and the lack of technical capacity and coordination, there is a substantial risk that work related to POPs and SMC would not be completed or would continue at a minimal level of effort and with significantly reduced – or even missed - objectives. International expertise that is of significant importance at this stage for regulations enforcement processes would not be available to the Government of Kenya. In fact, in the absence of GEF support in this area, the key national executing partner would not be a GEF-5 beneficiary in this focal area which could impact its priority setting in the longer term.

The project represents an important opportunity for reducing significantly the release of U-POPs generated by the improper disposal of healthcare and municipal waste.

In Table 2, the amount of healthcare waste generated in the main provinces in Kenya, estimated on the basis of number of beds and occupancy rate, is reported.

**Table2. Waste Generation by Provinces**

Region (Province)	Number of Beds & Cots	Waste Generated in @ 0.41 kg/p/d & 70% occupancy rate (t/year).
Nairobi	5,011	525
Coast	7,998	838
Eastern	7,822	819
North Eastern	1,914	201
Central	8,314	871
Rift Valley	12,832	1,344
Nyanza	12,545	1,314
Western	6,971	730
<b>Total</b>	<b>63,407</b>	<b>6,642</b>

The project will plan to replace selected incinerators/furnaces with non-combustion technologies, after proper waste segregation procedures have been established in the hospitals. There are five (5) incinerators involved in commercial combustion of hazardous waste. They include Kenya Medical Research Institute and the International Institute for Livestock Research incinerators. Four (4) of them have minimal Air Pollution Control Systems (APCS), while the fifth, located at Environmental Energy Consultants (ECC), has no APCS at all.

In total, there are 44 waste incinerators in Kenya registered under the Waste Management regulation, burning around 20,000 t/year of waste. Most of these incinerators are however very small facilities without any air pollution control system. In table 3, an estimation of the U-POP emissions from healthcare incinerators is reported, based on the assumption of 40mgTeq/t for the completely uncontrolled incinerator, and of 3mgTeq/t for incinerator with minimal APCS.

The project aims at establishing facilities for the environmentally sound disposal of at least 1/10 of the amount of healthcare waste generated (630 tons/yr) with an avoided release of U-POPs which may be quantified in around 20gTeq/year.

The GEF contribution is expected to be used mostly on the demonstration of autoclaves (including the one developed under the GEF global healthcare waste project, if available at project starting), whilst the Government of Kenya will provide support on the upgrading of selected incinerators.

The selection of those to be improved and used as demonstration pilot projects will be best served by selecting those already in place which can be adapted to BAT/BEP requirements.



**Table 3.Potential releases from Medical/Hospital Waste Incineration**

Class	Facilities	Annual combustion t/a	Emission Factors µg TEQ/t		Releases to g TEQ/a	
			Air	Residues	Air	Residues
1	75% - Uncontrolled batch Combustion, no APCS	4,981.650	40,000	200	199.266	0.9963
2	25% - controlled batch, no or minimal APCS	1,660.550	3,000	20	4.9817	0.03321
<b>Total</b>					<b>204.2477</b>	<b>1.0295</b>

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<b>Total</b>					<b>204.2477</b>	<b>1.0295</b>

#### Strategy for waste materials Resource Recovery and Recycling

The project will build onto the project on Integrated Solid Waste Management (ISWM) for Nairobi which carried out intensive consultation on different scenarios for waste recovery in Nairobi in 2010. The potential for waste sorting, material recovery and its use in poverty reduction was highlighted. Its suggestions and recommendations will be adapted to this project as detailed in Table 4.

Table 4.Quantification of the status quo and possible futures for solid waste volumes in Nairobi

	Year	Quantities in tons/day				
	2009	2015		2020		
	Best	Worst	ISWM	BAU	ISWM	BAU
Total generated	3000	3200	3500	4400	4000	5400
OF to official dump	13%	9%	15%	10%	15%	10%
Recyclables recovered	8%	3%	10%	6%	20%	6%
Recyclables to official dump	9%	8%	13%	10%	15%	10%
Recyclables burnt or illegally dumped	21%	27%	15%	22%	3%	22%
Residual to official dump	5%	3%	8%	5%	10%	5%
Residual burnt or illegally dumped	6%	8%	4%	7%	2%	7%
Total	100%	100%	100%	100%	100%	100%

In consideration of the baseline and baseline project illustrated above, the project has been designed with 4 main components described below:

#### **Component 1. Streamlining environmentally sound management of chemicals and waste into national and county development activities through capacity building of MEMWNR, MOH, County Governments of Nairobi, Kisumu and Mombasa and the NGOs**

##### **Activities**

This component will comprise the following activities:

1.1.1 Capacity building in Government, private sector and civil society to streamline chemicals management into development activities, strategies, policies and budgeting processes. Currently, although there is a legislative framework in place, POPs are not explicitly covered in the legislation, and the enforcement of the legislation is low. The project will aim at supporting the government in strengthening, integrating and enforcing the existing legislation in compliance with SC requirements, SAICM recommendation, GHS on classification and labelling of chemicals.

1.1.2 Training for environmental managers (central government, municipalities and NGOs) and for trainers will be held at central and local level to practically implement and enforce the requirement of SC with special reference to the management of waste, BAT and BEP, methodology for waste burning avoidance.

1.1.3 Building capacity for use of BAT/BEP guidelines, including funding for and convening of training workshops, giving special attention to the reduction, continuing minimization and, where feasible, the ultimate elimination of unintentionally produced POPs (UPOPS) from open burning of solid waste, and

1.1.4. NEMA is prepared to better enforce the committee on chemical management and waste, ensuring that the committee is effectively operating and meets 4 times per year. This will contribute to ensure transparency, effective coordination, and assignment of responsibilities among government, NGOs, and other stakeholders

1.2.1 Monitoring of POPs in environmental media, food chain, human bodies. This activity will rely on cooperation established with key universities to strengthen and expand monitoring capabilities of the country.

1.2.2. Establishment of curriculum on chemical risk assessment, environmental legislation in at least 70% of the university nationwide.

## **Outputs**

1.1.1 Overall policy framework and specific regulatory measures covering environmentally sound management of POPs through life cycle management developed and implemented.

1.1.2 Key institutions have knowledge and skills to formulate and implement necessary chemicals and environment policies, consistent with sound chemicals management principles and international convention requirements

1.1.3 Key institutions have incorporated sound management of chemicals and wastes, including POPs, in their activities.

1.1.4 National coordinating meetings on POPs held regularly (4 times per year), without GEF financial support

1.2.1 At least 70% of laboratory analyses in research and monitoring institutions required to monitor the implementation of national policy on hazardous chemicals and wastes being carried on a cost recovery basis

1.2.2 70% of universities nationwide include issues of hazardous chemicals and wastes, risks and legislation in curriculum

1.2.3. PRTR Database in place

## **Indicators:**

- **TEXT OF AMENDED OR NEW REGULATION INCLUDING PROVISION ON POPs, REPORTS ON LAW-MAKING ACTIVITIES, OFFICIAL GUIDANCE DRAFTED AND ADOPTED.**
- **TRAINING MATERIALS, TRAINING REPORTS, OUTCOME OF PRE AND POST TRAINING TESTS, TRAINING ATTENDANCE SHEETS, TRAINING FEEDBACKS OF AT LEAST 2 NATIONAL TRAINING WORKSHOPS AND 4 LOCAL TRAINING COURSES.**
- **MINUTES OF THE MEETING OF THE CHEMICAL COMMITTEE AND ATTENDANCE SHEETS, INTERVIEWS.**
- **MONITORING RESULTS CONCERNING SAMPLES ANALYZED FOR U-POPs IN SOIL, AIR, WATER, FOOD CHAIN, HUMAN MILK (MINIMUM TARGET NUMBER OF SAMPLES TO BE DETERMINED**

## **DURING THE PPG)**

- **UNIVERSITY CURRICULUMS ON CHEMICAL RISK ASSESSMENT, ENVIRONMENTAL LEGISLATION AND POLICY.**

### **Component 2. Introduce BAT and BEP into management of health-care waste in selected healthcare facilities; policy and strategic plans to prepare them to adopt BAT and BEP disposal**

#### **Activities**

2.1.1 Development of procedures and guidelines for the assessment and implementation of hazardous waste management at healthcare facilities built on lessons and examples from previous GEF projects worldwide and the WHO bluebook.

2.1.2 Drafting and adoption of an official Healthcare Waste Management Handbook

2.2.1. Training of personnel in at least 9 healthcare facilities on the Environmentally Sound Management of Healthcare Waste

2.2.2 Baseline assessment of healthcare waste facility and establishment of healthcare waste management plan

2.2.3 Implementation of ESM management of waste in 3 facilities in 3 pilot counties.

2.2.4. Final assessment of healthcare waste facilities including the estimation of avoided emission of U-POPs obtained with the reduction and better segregation of healthcare waste.

The activities under this component will build upon success stories and lessons learnt from previous health care waste project carried out by GEF in other African countries, with special reference to the GEF “global healthcare waste project” (<http://www.gefmedwaste.org>).

#### **Outputs**

2.1.1 Procedures and guidelines for the assessment and implementation of healthcare waste management at healthcare facilities built on lessons and examples on the application of the I-RAT tool in previous GEF/UNDP projects worldwide developed and adopted

2.1.2 A national healthcare waste handbook drafted and officially adopted by the MOH.

2.2.1 Baseline assessment of each healthcare facility based on the I-RAT tool carried out, and waste management plans based on the baseline assessment level drafted and implemented

2.2.2 Hospital personnel at all level trained on the implementation of the above procedures

2.2.3 ESM management of healthcare waste implemented in 3 facilities in three pilot counties.

2.2.4 Final assessment of the healthcare facility to measure results achieved with the implementation of the ESM management against baseline is carried out and estimate amount of U-POP release avoided.

#### **Indicators**

- **INTERMEDIATE AND FINAL TEXT OF PROCEDURES AND GUIDELINES FOR FACILITY ASSESSMENT;**
- **TRAINING MATERIALS (BASED ON THE WHO/UNDP/GEF TRAINING MODULES ON HCWM), TRAINING REPORTS, OUTCOME OF PRE- AND POST-TRAINING TESTS, TRAINING ATTENDANCE SHEETS, TRAINING FEEDBACKS FOR EACH FACILITY;**
- **INTERMEDIATE AND FINAL TEXT OF THE HEALTHCARE WASTE MANAGEMENT HANDBOOK, MEETING MINUTES;**
- **FACILITY-WIDE HEALTHCARE WASTE MANAGEMENT IMPLEMENTATION PLAN;**

- **FACILITY-WIDE HEALTHCARE WASTE MANAGEMENT QUARTERLY AND YEAR REPORTS.**

**Component 3 Demonstration of sound healthcare waste disposal technologies in a selected number of healthcare facilities in each county**

**Activities.**

3.1.1 Drafting of feasibility study and term of reference for non-combustion or low-U-POPs emission technologies for waste disposal in 3 selected hospitals or waste management facilities drafted.

3.1.2 Procurement and establishment of the selected technology or upgrading of the existing technology, including the carrying out of proof of performance test.

3.1.3. Facility-wide final evaluation of disposal of ESM with the upgrade or new technology after one year of operations.

3.1.4. Drafting of a replication toolkit.

Based on the work of component 2, three (3) facilities will be selected. It has in fact been suggested to select Kenyatta Referral Hospital because it has both incinerator and is also open burning, and / or Mama Lucy Kibaki hospital because it is the newest and upgrading with an autoclave might be more cost effective, and a district hospital. Similar criteria will be adopted for the selection of facilities in Mombasa and Nakuru.

Work under this component will be led by the MOH. GEF resources will be used to review inventory work in the three (3) counties for U-POPs production from healthcare and other waste. The purpose will be to revise estimates of U-POPs releases in order to better inform U-POPs-related policy development. Work under this outcome will follow the recommended five-step approach to establish a national PCDD/PCDF release inventory using the UNEP Toolkit<sup>8</sup>.

The activity of Component 3 will widely rely on the outcomes, lessons learnt, and technologies tested and developed under other GEF healthcare waste management project, with special reference to the GEF/UNDP/WHO/UNOPS “Global healthcare waste project” (<http://www.gefmedwaste.org>). More specifically, the project will explore the possibility to put into operation in the selected facilities the innovative autoclave technology, designed specifically for the African market, which has been engineered, tested and built in Tanzania.

The project will also explore the possibility to source and coordinate co-finance resources from other than GEF resources to upgrade a selected number of existing incineration plants, after upgrading to ensure compliance with the Stockholm Convention BAT/ BEP requirements through test burns. Although it is estimated that no more of three facilities can establish a new waste disposal technology or upgrade the existing one, the feasibility to demonstrate a larger number of facilities will be explored.

**Outputs.**

3.1.1 Feasibility study and term of reference for non-combustion or low-U-POPs emission technologies for waste disposal in selected hospitals or waste management facilities drafted.

3.1.2 Procurement and performance assessment of the technologies in the selected facilities completed.

3.1.3 Waste disposal activities of hospital facilities/programs are documented and their performance is evaluated to exemplify best practices in health-care waste management.

3.1.4 Useful replication toolkits on how to implement best practices and techniques are developed.

**Indicators**

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<sup>8</sup> UNEP. 2007. Standardized Toolkit for Identification and Quantification of Dioxin and Furan Releases. Edition 2.1 December 2005. Prepared by UNEP Chemicals, IOMC. Geneva, Switzerland

- **INTERMEDIATE AND FINAL FEASIBILITY STUDY REPORTS ON THE PERFORMANCE – IN TERM OF POPS REDUCTION – OF POPS.**
- **TERM OF REFERENCE AND BIDDING DOCUMENTS FOR THE TECHNOLOGIES TO BE ESTABLISHED AT HEALTHCARE WASTE FACILITIES;**
- **DISPOSAL TECHNOLOGY IMPLEMENTED AND TESTED; PROOF OF PERFORMANCE PLAN AND REPORTS; NORMAL OPERATION REPORTS.**
- **INTERMEDIATE AND FINAL VERSION OF THE TOOLKIT.**

**Component 4.Minimizing releases of unintentionally produced POPs from open burning of waste.**

**Activities:**

4.1.1 Training workshops for communities and municipalities aimed at enhancing the reduction, reuse and recycle of waste on the basis of the 3R approach (Reduce, Reuse, Recycle).

4.1.2 Improvement of the regulatory framework for the recovery of waste material to include SC POPs requirements

4.1.3 Municipalities and local authorities provided with training, manual, and technical assistance for sound management of solid wastes.

4.2.1 Selection of communities for demonstrating plans and actions for the reduction of solid waste burning following the 3R criteria.

4.2.3 Initiatives (including the establishment of PPPs) for reducing, reuse and recycle of waste and for composting, collection of compostable municipal waste for communities in three (3) counties of Nairobi, Mombasa and Nakuru.

4.2.3 Development of local initiatives for the recycling and reuse of other waste materials (i.e. plastic).

4.3.1 Prioritization of open-burning landfills to be closed and cleaned up, emergency plans and clean-up plans for at least 3 landfills

4.3.2 Implementation the emergency plans for reducing release of contaminant in the environment and the exposure of the population in the highest priority landfill.

In the priority area of integrated solid waste management aimed at reduction of releases of dioxins and furans, emphasis will be placed on pilot experiences of improved practices for the management of solid wastes, including waste separation and recycling, such as those financed by JICA and the European Union. Same will apply for the development of small businesses based on waste recycling and composting as GEF funds would be used in an incremental manner to support the systematization, replication and diffusion of the dispersed pilot initiatives supported by other donors, resulting eventually in improved waste management nationwide; awareness raising regarding the health implications of dioxin and furan emissions from waste disposal; and the strengthening of municipal governments.

The project will enhance the country project’s strategy to organize and bring the informal sector into the formal waste management sector through proposal contained in the integrated solid waste management (ISWMS) of 2010. Although the project will identify emergency measures to put in place at waste dumpsites, the main objective will be to prevent waste flow from being burnt at these dumpsites, by enhancing the “3R” economy and enabling municipalities to establish PPP schemes with the support of NGOs that can at the same time reduce the waste flow being burnt, reduce poverty and provide an alternative opportunity for people living at the dumpsites.

For the civil society such as the Greenbelt Movement and other community based organizations in Mombasa and Nakuru, the project will also develop specific institutional capacities in support of the concrete investments. Practical guidelines will be developed and staff training provided on the management and disposal of solid wastes in ways that avoid the emission of dioxins and furans, such as waste separation and recycling. This will principally be directed at municipal authorities and community-based groups which will be managed by ILIMA.

In terms of appropriate roles for NGOs, CBOs and local authorities, there are evidences that communities are more than willing to provide for themselves urban service like waste management when local authorities are unable to do so in line with the BAT/BEP guidelines of the Stockholm convention. In providing advice, training, and credit to these organizations, NGOs will have an important role to play in meeting the convention's objectives. The resources of local authorities will therefore be best employed in regulating, coordinating and advising CBO and NGO efforts in the provision of urban services like waste management. The Greenbelt Movement could use its superior community mobilization skills to achieve this.

The project will also strive at drafting and implementing risk-based emergency counter-measures to prevent and reduce the exposure of people to hazardous substances released from landfills. These counter-measures, to be identified in detail in the PPG stage, will take into due consideration the social and resettlement issues that may arise from the restricted access to landfills for people who were relying on the "dumpsite economy"; landfill surveillance and management plans; implementation of temporary activities / infrastructures aimed at preventing the dispersion of contaminant in the environment.

## **Outputs**

4.1.1 Awareness raising activities for the communities and the municipalities aimed at enhancing the reduction, reuse and recycle (3R) of waste

4.1.2 Regulatory framework for the recovery of waste material (glass, organic, plastic) and for licensing of the recovery activity achieved at county and central level adopted.

4.1.3 Municipalities and local authorities provided with training, manual, and technical assistance for the sound management of solid wastes.

4.2.1 Communities selected for demonstrating plans and actions for the reduction of solid waste burning following the 3R criteria.

4.2.2. Initiatives for reducing, reuse and recycle of waste and for of composting, collection of compostable municipal waste for communities in three (3) counties of Nairobi, Mombasa and Nakuru implemented and supervised with the support of NGOs;

4.2.3. Development of local initiatives for the recycling and reuse of other waste materials (i.e. plastic).

4.3.1 Prioritization of open-burning landfills to be closed and cleaned up, emergency plans and clean-up plans for at least 3 landfills drafted.

4.3.2. Implement the emergency plans for reducing release of contaminant in the environment and the exposure of the population in the highest priority landfill.

## **Indicators**

- **PRELIMINARY AND FINAL TEXT OF THE UPGRADED REGULATION ON WASTE RECYCLING TO INCLUDE SC REQUIREMENTS,**
- **TRAINING MATERIALS, TRAINING REPORTS, OUTCOME OF PRE- AND POST TRAINING TESTS, TRAINING ATTENDANCE SHEETS, TRAINING FEEDBACKS FOR EACH FACILITY;**
- **GUIDANCE MANUAL ON 3R MANAGEMENT DRAFTED AND ADOPTED;**
- **LIST OF COMMUNITIES SELECTED FOR DEMONSTRATING PLANS AND ACTIONS FOR THE REDUCTION OF SOLID WASTE BURNING FOLLOWING THE 3R CRITERIA;**
- **MATERIAL BALANCE OF THE WASTE AVOIDANCE, WASTE REUSED AND RECYCLED WITH THE PROGRAM BY EACH PROJECT COMMUNITY (NAIROBI, MOMBASA AND NAKURU);**
- **MATERIAL BALANCE AND COMPOST QUALITY BY EACH PROJECT COMMUNITY IN THREE (3) COUNTIES OF NAIROBI, MOMBASA AND NAKURU;**
- **REPORT AND MATERIAL BALANCE FOR LOCAL INITIATIVE FOR THE REUSE AND RECYCLE OF**

#### OTHER WASTE MATERIALS

- **PRIORITY LIST OF OPEN BURNING LANDFILLS AND CLEAN-UP TIMEFRAME;**
- **INTERMEDIATE AND FINAL EMERGENCY PLANS AND CLEAN-UP PLANS;**
- **REPORTS CONCERNING THE IMPLEMENTATION OF EMERGENCY PLANS.**

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

Table 5 shows the key actors. They will be the primary actors under this project, whether it is by utilizing project expertise and input to help overcome barriers to establishing and implementing a community-based composting and sorting programme, or by adopting new, immediately impactful practice at unimproved dumpsites to reduce UPOPS releases from open burning, or by adopting and guidance notes to inform their policy and strategy work on municipal waste issues. they will benefit from some of the training activities in addition to professional development related to the techniques and approaches that are introduced by the project as detailed below

#### Communities

The main beneficiaries of the project activities are the people and communities affected by inadequate waste management. they include:

- i) Government of Kenya and local authorities
- ii) Residents of Nairobi, Nakuru, Nakuru And Mombasa approximately 100,000 people
- iii) 4000 groups and approximately 40,000 members the ILIMA and some 160,000 members of their families
- iv) Community based organizations not affiliated to ILIMA
- v) International community.

The institutions in Table 5 will bring in their capacity but synergy will be the key to promote:

- Use interministerial charter with terms of reference for interministerial coordination in matters of chemicals and hazardous waste
- Increased competitiveness in the global market since products from Kenya (food, industrial manufactured goods) will meet international standards with environmentally friendly alternatives for intentionally produced and used chemicals; thus reducing UPOPs pollution and contamination to water, soil, and ecosystems.
- Improved energy efficiency, reduced emission of SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub> and other pollutants such as mercury, in the case of unintentional production.
- Review existing legislation to make it more comprehensive in light of new international instruments that govern chemical's and hazardous waste and risk management
- Building capacity for institutions and agencies to enforce those regulations and implement guidelines that touch on extracted minerals, industrial chemicals, petroleum products, consumer goods and electrical and electronic waste
- Spin-off effects concerning strong institutional management support, strengthening of environmental legal frameworks and environmental monitoring capacities of Kenya resulting from these actions.

**Table 5: Main project stakeholders**

Stakeholder group / institutions	Relevant role and responsibilities
Ministry of Environment, Water	MEWNR has overall policy responsibility for waste management operations

and Natural Resources	-- ensuring that collection takes place and that the collected materials are delivered to processors, markets, or disposal facilities. They often have responsibility for landfills, incinerators, composting facilities, and have access to a stream of revenues from fees paid by waste collection companies for disposal. Counties simply collect solid waste and dump the waste in a dump site with no management.
Private sector companies	Private sector companies are increasingly involved in collection of waste, recovery of materials, the construction, operation and management of landfills, incinerators, and compost plants, and as concessionaires or contractors.
Civil Society Organizations (CSO) / Faith-Based Organizations (FBO)	CSO and FBO are currently left out of the mix with respect to developing and implementing proactive solutions to reducing U-POPs-prone waste from the waste stream.
Residential Waste Generators	Local residents' preferences for particular types of waste service, their willingness to source separate recyclable materials, pay for the service, and move waste to communal collection points all have an impact on the overall waste system. Incentives can affect residents' preferences and behavior.
Business Waste Generators	Businesses (commercial/ factories/ workshops) also produce waste, and the business sector can become a significant player in the waste management system, particularly, as is increasingly the case, when businesses pay directly for their waste service. As with residents, incentives can play an important role in shaping business behavior and compliance.
Waste sorters and scavengers	Seek valuable waste amidst the healthcare waste stream. They benefit from the open burning of healthcare solid waste and have become an important stakeholder group within the waste management sector of Kenya. In the absence of good sorting programme that formalizes their role, this stakeholder group will continue the practice of open burning of healthcare solid waste.

Other peripheral but important players are described in Table 6

**Table 6: Specific stakeholders and their roles**

Stakeholder Group/Institution	Relevant roles and responsibilities
<b>Waste Generators</b> (local residents, businesses, farmers)	Traditionally considered as passive partners or obstacles to improved waste management in Kenya. They have a largely underutilized capacity to contribute to reducing UPOPs emissions from open burning of MAW by reducing, segregating, and properly discarding the waste as per the regulations or choosing alternatives to open burning in the sector. Close cooperation will be required between waste generators and waste collectors to increase effectiveness of this work and to reduce the open burning of U-POPs.
<b>Healthcare Waste</b>	
Ministry of Health	The MOH is the main stakeholder at National level. MOH is responsible for establishing National healthcare and waste management policy in cooperation with State EPA partners. MOH is the lead agency in Kenya for the Stockholm Convention. MOH has developed and is implementing the IMSWMP. Officials from MOH will be closely involved at all stages of project preparation, management and implementation. Other ministries will be involved through the project management structures (steering committee) and by taking part in some of the training activities.
National Environment Management Authority (NEMA)	Responsible for developing and enforcing environmental standards and regulations nationwide in close collaboration with the SEPA's at the State level.
County Governments	Key local stakeholder responsible for local governance, including waste



Stakeholder Group/Institution	Relevant roles and responsibilities
	management. Each LGA has six (6) departments, one of which is the public works department. The LGA and the respective State government provide financing for waste management vehicles, crews, and other equipment and are responsible for the entire process.

## Gender Issues

A number of factors justify the importance of adopting a gender-differentiated approach to the management of chemicals. The major factors include: differences in physiological susceptibility and the resulting health effects as well as the source of exposure to toxic chemicals (workplace vs. household). This analysis will be prioritized during the PPG phase for integration within the FSP Project Document.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Risk rating	Risk mitigation strategy
Institutional risks associated with poor coordination among institutional stakeholders at the national level	L	The involvement at early stage of project design of the different institutional players (Ministry of Environment, Water and Natural Resources, Ministry of Health, NEMA, County governments) will ensure institutional coordination and proper assignment of responsibilities.
Reduced willingness of managers in the healthcare facilities to adopt Environmentally Safe Management of waste.	M	Training and awareness raising components, as well as the proper support from international and national expert mobilized by the project will facilitate the involvement of the managers of healthcare facilities. Possibility to improve the performance of the facility on the side of reduction of infectious disease and possible revenues from the selling of recyclable materials will also increase the motivation.
Reduced willingness of waste generators, municipalities and communities to cooperate on sound municipal waste management, and segregation and implementation of emergency measures at dump sites.	M	Involvement of local communities, municipalities and NGOs, as well as the individuation of mechanisms for replacing the “scavenger economy” with a more healthy “3R” economy will enhance the participation of local stakeholders. Awareness raising on the risk for the health and environment, and the possible option, will also reinforce the motivation.
Lack of commitment from the government or political difficulties for the adoption of amendment to the existing legislation or new legislation.	M	In general, guidance documents, decrees or circulars specifying the POPs requirement and criteria under the umbrella of existing legislation, endorsed at the ministerial level, will be preferred over the amendment of existing laws or new laws. In any case, the update of the regulation will start at the very beginning of project activity to ensure that it will be completed by project closure.

Procurement issues, difficulties related to the definition of technical specifications, timing for establishing and testing the equipment could cause delay in project implementation.	L	The experience gathered in other GEF projects will help in preventing difficulties related to the definition of TORs and procurement of disposal technologies. Preliminary identification of disposal technologies at the facilities to be completed together with the baseline assessment of the facilities.
Difficulties in achieving adequate level of co-financing	L	As in any other project at this stage of development, uncertainties exist associated with committed co-financing. However, a strong commitment from two Ministries capable of significant grant and in-kind contributions has been secured and additional support from other stakeholder is anticipated. On this basis, the level of co-financing required appears feasible, something that will be developed in detail during the PPG
Climate hazards affecting long term storage of waste and contaminated materials	L	<p>The project itself has the effect of mitigating such impacts by facilitating –in the medium term - the remediation of unsafe landfills and by implementing – within project deadline – measures aimed at reducing hydraulic risk for storage sites.</p> <p>Prevention and reduction of uncontrolled open burning and incineration will also reduce the emission of GHGs.</p> <p>Climate change impact considerations will be specifically included in the development of dumpsite risk assessments and individualization of emergency measures.</p>

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

The project will coordinate with other relevant GEF project in the area, and with other projects in the same field carried out by other national or international public or private institutions. More specifically, the project will benefit from the outcome of the recently concluded GEF Global Healthcare Waste Project ([www.gefmedwaste.org](http://www.gefmedwaste.org)), with special reference to lesson learnt and success stories related to the ESM management of healthcare waste in hospitals, and the development of an autoclave specifically designed for the African market.

The project will also coordinate with the GEF project related to the NIP update, and with the ongoing regional UNEP projects related to the POPs Global Monitoring plan.

The project will also seek coordination with ongoing cooperation project being carried out by international donors, namely JICA, EU, USAID.

To be effectively implemented, there will be regular communication and coordination between the political, technical Focal Points and the Secretariat of the Convention and all the other stakeholders mentioned above. The Focal Point will usually have an expert committee to assist and guide in the implementation. This committee will be formed from representatives of other initiatives and institutions including

- The local UNDP Office

- The local WHO Country representative
- Local offices of other UN implementing agencies (such as for example UNIDO) which express interest
- Representative of MEWNR, MOH, Planning and national Development
- National Environment Management Authority

The key committee include will be the national chemicals management committee.

Measures to promote such coordination include :

- Clear procedures requiring Focal Points to notify the relevant institutions and individuals responsible for implementing MEAs, regular meetings of the committee, publicity, awareness and capacity.
- Strengthening of the institutions concerned with implementation, which will be strengthened appropriately in order to increase the Capacity for enhancing delivery of outputs.
- As some of the MEAs have financial mechanisms and technical assistance provisions to deliver technical and financial assistance, the officers will use, some examples to mobilize technical assistance including.

### **C. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

- 1) The project is in conformity with the Global Environment Facility (GEF) Chemicals strategy objective 1 and 3 as it will support GEF intervention addressing POPs which are included in the chemicals life cycle management. In supporting sound chemicals management it will in effect extend support to other chemicals of global concern beyond POPs in order to capture additional global environmental benefits. The ultimate intention is to improve Kenya's compliance with the Stockholm Convention on Persistent Organic Pollutants particularly dioxins and furans. It will support GEF commitment to addressing air quality by avoiding emissions of POPs among other air pollutants such as greenhouse gases because in most urban areas open burning of waste is the preferred method of waste disposal though it known to be major source of (UPOPs)
- 2) In addition the project is aligned with the GEF5 POPs focal area Chemicals Strategy and indicators and outputs are within Chemicals Results Framework. It will endeavour to support sound chemicals management in the context of legal, policy, institutions support in terms of financial, physical investments and capacity development for the reduction of UPOPs releases.
- 3) It is in line with the GEF global priorities as the financing mechanism for the Stockholm Convention on persistent organic pollutants (POPs) and Kenya as developing country is eligible for this assistance. Further the project is eligible in the context of the guidelines provided by the Conventions Conference of Parties (COP) such as the fact that it will:
  - a) Support implementation of the chemicals and waste multilateral environmental agreements
  - b) Implement the commitments made at the 1st Session of the International Conference on Chemicals Management (ICM1)
  - c) Enable Kenya to fulfil their obligations under the Convention
  - d) Develop and implement activities identified in the Kenya National Implementation Plan (NIP);

4) Activities will support or promote capacity-building, including human resource development and institutional development and/or strengthening for the parent Ministry of Environment, Water and Natural Resources (MEWNR), the counties of Nairobi, Mombasa and Nakuru and the Greenbelt movement;

### B.3 The GEF Agency's comparative advantage for implementing this project:

As from the GEF Council Document on "Comparative Advantages of the GEF Agencies, "UNDP's comparative advantage for the GEF lies in its global network of country offices, its experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation. UNDP assists countries in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP also has extensive inter-country programming experience."

Within the framework of SAICM, UNDP advocates for the integration of sound chemicals management priorities into national environmental and poverty reduction planning frameworks. UNDP supports international chemicals conventions objectives and assists Parties to comply with agreed measures. In addition, UNDP helps countries to identify and access technical and financial resources to improve their chemicals and waste regimes.

As one of the implementing agencies of the Global Environment Facility (GEF) and its Chemicals Focal Area that funds national priority initiatives related to the Stockholm Convention on Persistent Organic Pollutants (POPs). Mercury, SAICM as well as ODS is CEIT countries. UNDP has supported 36 countries in developing their national implementation plans under the Stockholm Convention and now is implementing three global programmes and supporting 22 countries in implementing national implementation plans with a combined portfolio of projects amounting to US \$84 million of grants through the GEF and co-financing of US \$152 million.

UNDP also helps countries to meet their commitments under the Montreal Protocol on Substances that Deplete the Ozone Layer, phase-out HCFCs and introduce Ozone and Climate friendly alternatives with the financial support of the Multilateral Fund for the Implementation of the Montreal Protocol (MLF), the Global Environment Facility (GEF) and bi-lateral donors UNDP activities on chemicals, such as Persistent Organic Pollutants, Ozone Depleting Substances, and heavy metals help reducing risks to environment and health. UNDP supports the reduction and elimination of all types of POPs contaminants included under the Stockholm Convention through:

- Sound management and disposal of POPs pesticides, including the promotion and introduction of POPs-free alternatives;
- Reducing releases of unintentional POPs (UPOPs) and ruminated flame-retardants resulting from unsound waste management processes/practices as well as recycling operations (e.g. e-waste, health-care and municipal waste etc.);
- Gradual implementation of best available techniques (BAT) and best environmental practices (BEP) for existing as well as new POPs sources; and
- Minimization of exposure levels of communities living close to contaminated areas.

In 2011 UNDP prepared a publication entitled Chemicals and Gender which describes the important linkages between socio-economic development, gender, and chemicals management. A number of factors justify the importance of adopting a gender-differentiated approach to the management of chemicals. The major factors include: differences in physiological susceptibility and the resulting health effects as well as the source of exposure to toxic chemicals (workplace vs. household).

The UNDP Guide for Integrating the Sound Management of Chemicals into MDG-Based Development Planning (2012) provides a systematic approach to countries to help assess their capacity for sound management of chemicals, identify needs, and ultimately integrate identified priorities into national MDG-based development policies and plans. The UNDP Guide is based on applied, practical experience accumulated in a number of pilot countries under the UNDP-UNEP Partnership Initiative

Within its programmes under the implementation of the Stockholm Convention and the Montreal Protocol, UNDP endeavors to incorporate issues related to POPs and ODS management into national development planning processes, and its projects aim to improve policy and regulatory frameworks through targeted institutional capacity development.

Wherever possible and appropriate, UNDP POPs activities are undertaken within and strengthening a country's framework for sound management of chemicals, to ensure national coordination among chemicals-related activities in support of regional or global conventions and agreements on chemicals.


As mentioned above in this PIF, UNDP has developed cooperation with WHO and NGOs such as Health Care Without Harm on improving management of Health Care Waste Management, as related in particular to dioxin/furans and mercury. This has been conducted through several projects including the Global Healthcare Waste Management project (to be completed imminently) as well as its regional replication in 4 countries in Africa, Ghana, Madagascar, Tanzania and Zambia (PPG stage).

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

- A. **RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr. Richard Lesiyampe	Principal Secretary	MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES	01/23/2014

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email
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