



PROJECT IDENTIFICATION FORM (PIF) ¹

PROJECT TYPE: Medium-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Protect human health and the environment from unintentional releases of POPs and mercury from the unsound disposal of healthcare waste in Kyrgyzstan		
Country(ies):	Kyrgyzstan	GEF Project ID: ²	5068
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5155
Other Executing Partner(s):	WHO	Submission Date:	08/09/2012
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration(Months)	36
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>		Agency Fee:	135,375

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
(select) CHEM-1	Outcome 1.3: POPs releases to the environment reduced	Indicator 1.3 UPOPs releases avoided or reduced from the health-care sector	1,065,000	3,430,000
(select) CHEM-1	Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs	Indicator 1.5.2. Legal and regulatory frameworks enhanced; national plans developed and implemented	100,000	1,082,000
(select) CHEM-3	Outcome 3.1: Country capacity built to effectively manage Hg in priority sectors	Indicator 3.1. Countries implement pilot mercury management and reduction activities.	130,500	670,000
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)	Others			
Project management cost ⁴			129,500	518,000
Total project costs			1,425,000	5,700,000

¹ It is very important to consult the PIF preparation guidelines when completing this template.

² Project ID number will be assigned by GEFSEC.

³ Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

⁴ GEF will finance management cost that is solely linked to GEF financing of the project.

B. PROJECT FRAMEWORK

Project Objective: Implement Best Environmental Practices (BEP) and Best Available Technologies (BAT) in the health-care sector to assist Kyrgyzstan in meeting its obligations under the Stockholm Convention to reduce UPOPs as well as Mercury releases while reducing the occurrence of the spread of infectious diseases due to inadequate HCWM.					
Project Component	Grant Type (TA/IN V)	Expected Outcomes	Expected Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
1. HCWM National plan, implementation strategies, and national and city-wide policies enhanced.	TA	<p>1.1 Institutional HCWM capacity strengthened.</p> <p>1.2 Regulatory capacity for HCWM strengthened.</p> <p>1.3 Institutional capacity and national education capacity strengthened with respect to HCWM training</p>	<p>1.1.1 National HCWM strategy and plan reviewed, adapted and adopted.</p> <p>1.2.1 Standards and regulations for HCWM handling and disposal reviewed , adapted and adopted.</p> <p>1.3.1 National HCWM training programs improved within 6 training and education entities and all project HCFs.</p> <p>1.3.2 Training materials and tools developed, improved and disseminated.</p>	145,000	1,082,000
2. BAT/BEP implemented for HCWM systems and recycling implemented for the City of Bishkek - capital area.	TA	<p>2.1 I-RATs⁵ completed in Bishkek's Healthcare Facilities (HCFs).</p> <p>2.2 Allocation formula to calculate the total no. of technologies/ devices required per facility.</p>	<p>2.1.1 I-RATs conducted in Bishkek's HCFs.</p> <p>2.2.1 Based on I-RAT results and the allocation formula, non-incineration technologies and Hg free devices procured and deployed for 50% of centralized and decentralized points (Phase 1).</p> <p>2.3.1 BAT/BEP (incl. recycling)</p>	970,500	3,300,000

⁵ Individualized Rapid Assessment Tool (I-RAT) is a rapid assessment tool – developed under the GEF/UNDP/WHO Global Medical Waste Project - used to obtain an initial indication of the level of healthcare waste management at an individual healthcare facility. The tool results in an overall score that can be used to compare and rank healthcare facilities for the purpose of prioritizing interventions, and can also be used as a quick tool to identify possible areas for improvement within a single facility (<http://www.gefmedwaste.org/downloads/I-RAT%20May%202009%20UNDP%20GEF%20Project.xls>).

		2.3 UPOPs and GHG emissions reduced as a result of improved HCWM systems in all facilities.	implemented in "Phase 1" HCFs. 2.3.2 Evaluation report for each "Phase 1" recipient facility prepared including recommendations for "Phase 2". 2.3.3 Additional technologies procured/ distributed to "Phase 2" facilities based on allocation formula and evaluation results. 2.3.4 HCWM BAT/BEP implemented at "Phase 2" facilities.		
3. Mercury waste management and mercury reduction activities for the City of Bishkek implemented.	TA	3.1 Institutional capacities to strengthen policies and regulatory framework, and to develop a national action plan for mercury phase-out enhanced. 3.2 Facilities have the necessary capacity to phase-out Hg. 3.3 Mercury reduction in Bishkek facilities demonstrated.	3.1.1 National policy and regulatory framework for Hg phase-out (health-care sector). 3.1.2 Nat. action plan on Hg phase-out. 3.2.1 Facilities trained in the use of Hg-free devices. 3.3.1 Safe storage sites for Hg devices used in model facilities. 3.3.2 Hg-free devices procured/ deployed based on I-RAT results + allocation formula, for 50% of centralized and decentralized HCFs (Phase 1). 3.3.3 Additional devices procured/ distributed to "Phase 2" facilities based on allocation formula	120,000	500,000

			and evaluation results (see 2.3.2). 3.3.4 (Phase 2) Additional staff trained. 3.3.5 Tools for countrywide dissemination/ replication developed.		
4 . Monitoring, learning, adaptive feedback, outreach, and evaluation.	TA	4.1 Project's results sustained and replicated	4.1.1 mid and final evaluation conducted. M&E and adaptive management applied in response to needs, MTE findings with lessons learned (LL) extracted. 4.1.2. LL and Best Practices are disseminated at national, regional and global level.	60,000	300,000
	(select)				
	(select)				
	(select)				
	(select)				
Sub-total	(select)			1,295,500	5,182,000
Project management Cost ⁶				129,500	518,000
Total project costs				1,425,000	5,700,000

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

Sources of Cofinancing for baseline project	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Ministry of Health, State Agency on Environmental Protection and Forestry, Ministry of Education	In-kind	900,000
Bilateral Aid Agency (ies)	Centers for Disease Control (CDC) Swiss Red Cross (SDC) PEPFAR	Grant	3,000,000
GEF Agency	UNDP, WHO	In-kind	200,000
Others	Participating private hospitals, health professional and hospital associations, training institutions.	Grant	1,000,000
Others	SAICM QSP TF (UNITAR-GHS & UNDP/UNEP mainstreaming)	Grant	300,000
Others	Compulsary Healthcare Insurance	In-kind	300,000
(select)		(select)	
(select)		(select)	
Total Co-financing			5,700,000

⁶ Same as footnote #3.

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal area	Country name/Global	Project amount (a)	Agency Fee (b)²	Total c=a+b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				0	0	0

¹ 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

² Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. THE GEF FOCAL AREA STRATEGIES

The project is fully consistent with the GEF-5 Chemicals focal area strategy, Objective 1: *Phase-out POPs and reduce POPs releases* as well as Objective 3: *Pilot sound chemicals management and mercury reduction*. The project will contribute to the achievement of GEF's main indicators as follows:

Relevant GEF-5 Strategy Indicator	Project's contribution
Objective 1: Phase out POPs and reduce POPs releases	
<i>Outcome 1.3: POPs releases to the environment reduced</i>	
Indicator 1.3 Amount of unintentionally produced POPs releases avoided or reduced from industrial and non-industrial sectors; measured in grams TEQ against baseline as recorded through the POPs tracking tool	Significant reductions of UPOPs will be achieved in Kyrgyzstan through the introduction of non-incineration technologies at medical facilities in Bishkek acting as treatment hubs for the treatment of medical and veterinary wastes. Due to a high concentration of HCFs, Bishkek produces 60% of the nation's HCW and is assumed to release a proportional share of the nation's UPOPs emissions. In addition, the project will support the development of training programmes at national educational facilities/entities as well as healthcare facilities; implement best environmental and management practices and technologies at facility and cluster level, and ensure national dissemination and replication of project results (Component 1, 2, and 4). As a result of these activities the project expects to reduce UPOPs emissions by 5 g-TEQ/a.
<i>Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs</i>	
Indicator 1.5.2 Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded through the POPs tracking tool	Country capacity will be built through the development/enhancement of the national policy and regulatory framework pertaining to the management and disposal of healthcare/veterinary and mercury wastes from the healthcare sector, as well as the development and adoption of national plans relative to the management of such wastes (Component 1).
Objective 3: Pilot sound chemicals management and mercury reduction	
<i>Outcome 3.1: Country capacity built to effectively manage mercury in priority sectors</i>	
Indicator 3.1 Countries implement pilot mercury management and reduction activities	Country capacity will be built by developing and implementing country-wide mercury phase-out plans, developing and implementing standards for the clean-up, storage and transport of healthcare mercury waste, demonstrating and phasing-in the use of mercury-free devices. Through implementation of Component 3, the project expects to reduce mercury emissions by 3.6 kg Hg/yr.

A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES: N/A

A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPs, NPFE, ETC.:

NIP: Kyrgyzstan ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) on 17 July 2005 and developed its National Implementation Plan including a National Action Plan on POPs as part of the GEF/UNEP project: *Kyrgyzstan – GEF/UNEP: “Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan for Kyrgyz Republic.”* The NIP was approved by the Kyrgyzstan President Decree No -371 as of 3 July 2006 and transmitted to the Stockholm Convention on 4/2/2009.

As part of the NIP's preparation, an assessment of unintentional POPs releases (PCDD/PCDF, PCB) was undertaken. In 2003 the total releases of dioxins were 30.5 g-TEQ, of which releases into air accounted for 14.37 g TEQ (47.11%), water - 10.87 g-TEQ (35.63%), and soil - 0.16 g-TEQ (0.52%). The majority of releases are the result of combustion practices, with the greatest contribution made by incineration of medical wastes (7 g-TEQ). There is a great deal of uncertainty in the calculations due to the lack of accurate data on burning practices.

The issue of UPOPs releases was taken up as one of Kyrgyzstan's main priorities in the NIP:

- *Management of stockpiles (pesticides, PCBs) and wastes (POPs) in an environmentally safe manner:*
 - 1.3 Assessing unintentional releases and their impact on the environment in the two largest cities of the country (Bishkek and Osh); preparing a feasibility report on recycling medical wastes; develop a national strategy on reducing releases as a result of burning fuel, domestic wastes and polluted plant residues of cotton and tobacco to heat houses in the countryside; developing an action plan to reduce or eliminate sources of unintentional POPs releases; promote BAT and BET.

National Health Strategy: Issues regarding the management of healthcare waste are included in the National Health Reform Programme (2012-2016), entitled "*Den Sooluk*" (currently being finalized), which is a logical continuation of the preceding National Health Reform Programs "*Manas*" (1996 – 2005) and "*Manas Taalimi*" (2006 – 2011). Since 2006, health system reform has been implemented under a Sector Wide Approach (SWAp). Under the SWAp, MOH departments and agencies have been driving the implementation of the National Health Reform Programme, development partners have channeled their support to program priorities, and joint processes and instruments have been developed to monitor progress.

"*Den Sooluk*" (2012-2016) lists specific priorities with respect to HCWM under priority 3 and 4:

- 3. Expected results and core services for priority health programs;** 3.5. HIV infection; Provision of individual services: Poor material provision of health care organizations for activities related to infection control and medical waste recycling (personal protection equipment, instruments etc.);
- 4. Overcoming systemic barriers through strengthening all functions of the health system**
 - 4.1 Public Health; 4.1.3. Optimization of the public health system; 4.1.3.5. Intensification of activities related to safe medical procedures and medical waste recycling.

The proposed project, focusses on non-incineration BEP/BAT, the selection of priority Health Care Facilities (HCFs) in Bishkek, and the clustering of HCFs for disposal purposes, is entirely in line with the approach proposed by the MoH and its Republican Infection Control Center, elaborated in the project proposal "*Implementation of a Healthcare Waste Management System in Public Health Organizations in Bishkek*" which in its entirety has been included in "*Den Sooluk*" programme.

B. PROJECT OVERVIEW:

B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

The factual basis for Kyrgyzstan's approach to national challenges with respect to POPs issue are defined in its NIP and National Action Plan, which constitutes the baseline situation in terms of POPs priorities related to future management of POPs.

With respect to Healthcare Waste Management (HCWM) and related UPOPs challenges at national level, the following section summarizes the project baseline based on the results of the NIP, provides an overview of progress since NIP submission, and outlines activities which the Government is anticipating to support during the period 2012-2016, followed by a description of the incremental activities GEF funding would allow for to significantly reduce UPOPs and Mercury releases from the healthcare sector.

NIP Baseline:

- *UPOPs releases from Healthcare Waste Management:*

As indicated in section A.2 an assessment of unintentional POPs releases (PCDD/PCDF, PCB) was undertaken in 2003. The total releases of dioxins were 30.5 g-TEQ, of which releases into air accounted for 14.37 g TEQ (47.11%), water - 10.87 g-TEQ (35.63%), and soil - 0.16 g-TEQ (0.52%). The majority of releases are the result of combustion practices, with the greatest contribution made by incineration of medical wastes (7 g-TEQ).

With respect to UPOPs releases originating from the inadequate disposal of healthcare waste, it is assumed that UPOPs emissions have significantly increased since 2003, due to population growth (1.5 times) and an increase in the number of private health clinics and clinic visits, all resulting in increased use and disposal of disposable syringes and single-use items.

The 2003 UPOPs inventory did not take into consideration the quantities of veterinary waste that are generated nowadays and of which the quantities keep increasing, nor did the inventory take note of UPOPs releases generated during the recycling of PVC-containing medical plastics. It is rather common practice for HCFs to sell off certain plastics to recyclers (predominantly disinfected needles and IV bags) however inadequate thermal processes, both practiced at healthcare facilities and by recyclers, are sources of UPOPs releases.

- *Policies and Legislation regarding UPOPs releases and HCWM*

UPOPs: Kyrgyzstan counts approximately 44 pieces of legislation which pertain to the management of chemicals. However, legislation is merely functioning as a framework and reflects the general requirements to prevent adverse effects on health and the environment. The current legal and regulatory framework does not sufficiently meet requirements to ensure that chemicals and chemical wastes are properly managed throughout their entire life cycle, nor does it provide clear guidelines and standards with respect to classification of chemicals, or restriction on emissions or MAC (including those in work environments). With respect to UPOPs, no legislation is in place setting emission standards. Regarding HCWM a few laws provide a general basis for the regulation of medical waste: “On sanitary and epidemiological well-being of the population”; “On wastes of production and consumption”; “On radiation safety of the population.” Methodological recommendations on “Modern principles and methods of waste management in the healthcare facilities in the Kyrgyz Republic” were adopted, however these are guidelines with no legal power and therefore not enforceable. Although the open burning of (medical) wastes is prohibited by law, it is common practice (particularly in rural areas) as there is insufficient capacity, awareness and budget to facilitate enforcement of the law.

- *Institutional and Monitoring Capacity in the area of UPOPs and HCWM*

In Kyrgyzstan, responsibilities with respect to HCWM and related UPOPs emission are assumed by several ministries, sub-divisions and government entities:

- *Ministry of Health, Republic Infection Control Centre and the Centre on the coordination between HCWM and infection control.*
- State Agency for Environmental Protection and Forestry; and,
- Bishkek municipality

There is a strong commitment of these agencies to the sound management of HCW and reduction of POPs releases, demonstrated by the type of initiatives the MoH and the State Agency have been supporting in these areas with the financial support of bilateral donors, int. agencies and the GEF (for an overview of national project and initiatives pls refer to section B.5), however due to significant budget deficits national entities were never in a situation where they were able to address HCWM for Bishkek city.

Monitoring: At city level, air pollution is being monitored for a few components (NO_x, CO, CO₂, dust and SO_x) however there currently doesn't exist any capacity within laboratories to monitor UPOPs emissions, nor are any regulations and restrictions in place with respect to UPOPs emissions. At regional

level, Kyrgyzstan cooperates with the Czech scientific center «RECETOX», Research Centre for toxic Components in the Environment, to monitor POPs in ambient air.

Progress since NIP completion

- Policies and Legislation regarding UPOPs releases and HCWM

Since NIP completion, important steps have been taken to create an enabling environment for the sound management of municipal wastes and infectious healthcare waste. "*Special Action Programme for the control of nosocomial infections and management of medical waste in Kyrgyz Republic*" was adopted in 2002 (Ministry of Health orders № 393 of 18.09.2002), its realization was taken up in the Health Reform Programme "*Manas Taalimi*" (2006 – 2011), however due to funding limitation never implemented. In cooperation with the Swiss Institute of Natural Sciences and Environmental Entrepreneurship, UNDP and "*Manas Taalimi*", MoH developed a *HCWM Strategy for 2008-2012*, which was included into the national Strategy for Solid Domestic Waste Management. The strategy was agreed upon by all Ministries, unfortunately it was not approved at parliamentary level because of funding constraints. The MoH did adopt "*Standards on the safe handling of medical wastes*". The 2012-2016 National Health Reform Programme "*Den Sooluk*", which is currently being finalized, includes the approach to HCWM for the city of Bishkek "*Implementation of a Healthcare Waste Management System in Public Health Organizations in Bishkek*" as included in this PIF. With respect to its funding, it should be noted that "*Den Sooluk*" is a Sector Wide Approach (SWAp), as such development partners will channel their support to program priorities, supplementing national budget allocations. GEF funding for the proposed project would therefore supplement envisaged national budget allocations.

Current Status on Issues regarding HCWM in Bishkek – the capital area

Bishkek, with a population of 870,000 people, counts 11 city hospitals, 14 state hospitals, 2 departmental hospitals, 19 family healthcare centers, 3 core clinics, 3 dental clinics and 9 veterinary clinics. In 2006, in the framework of a pilot Kyrgyz-Swiss project on health-care waste management, an assessment on HCW was undertaken which concluded that an estimated 400,000 tons of HCW were generated annually (1066 kg/day), containing, according to NIP inventory information, 360,000 disposable syringes and 62,000 disposable items annually.

The current practice in Bishkek is to chemically disinfect infectious healthcare waste, either by treating it with Hypochlorite solution or Chlorine powder after which it is discarded along with municipal waste and disposed of at regular landfills and dumps. Although the open burning of healthcare-, veterinary- and municipal- wastes is prohibited by law, cases of spontaneous combustion at hospital level do take place, while the landfill where disinfected waste is taken is continuously on fire. Not only do these practices result in UPOPs releases (see section "NIP baseline") but the chemical disinfection does not achieve complete disinfection, increasing the risk of spreading diseases. At hospital level, health care staff as well as waste workers often manually handle the waste without any personal protection gear and are thus exposed to pathogens and health risks associated with the application and handling of chloride-based substances used for disinfection. In addition, spent/used Hypochlorite solution is often discarded (same applies for other chemical wastes) in the sewer without proper waste water treatment. Data provided by the State Agency on Environment Protection also reports quantities of HCW originating from hospitals being sent to the "Bishkekteploenergo" furnace as recent as 2011 – indicating that HCW is being disposed in furnaces not designed nor intended for the incineration of HCW, thus generating considerably more UPOPs emissions than when applying BAT.

Healthcare and dental facilities are also a significant source of atmospheric releases of mercury, contained in medical instruments such as thermometers and lighting (e.g. fluorescent lighting and energy savers) as well as in amalgam dental fillings used in the past. Across Kyrgyzstan it is common practice to discard mercury containing wastes along with regular municipal waste as no separate collection, storage or

disposal for Hg exists. As healthcare sector employees and waste handlers are not aware of how to safely handle, store and transport Hg-containing items, they are exposed to mercury vapors.

Current Status on Issues regarding HCWM in rural areas (outside of Bishkek)

In rural areas, particularly among smaller rural clinics, open burning of HCW is still consciously practiced, as a consequence of insufficient training, awareness and law enforcement, as well as small operational budgets that do not allow for putting in place non-burn technologies. In a few rural hospitals small size incinerators have relatively recently been installed to handle increased HCW quantities during the political unrests in the South and a few reported HIV outbreaks. The national injection programmes (1,700,000 vaccination of which 800,000 first-aid injections) apply incineration.

Chemical waste such as used disinfectants, reagents, clinical laboratories, the remnants of drugs, medicines that have expired are merged into the sewer or into the ground. Radioactive wastes are disposed of in a special landfill. Anatomical waste is either disposed of in specially designated cemetery lots, burned in HCF furnaces or buried.

With financial and technical assistance provided by the Swiss Red Cross (baseline project) the Ministry of Health will be supporting the implementation of autoclaving technologies in rural areas in 52 healthcare facilities in 2012/2013 following a pilot in 2009 and conversion of 106 rural HCFs in 2010/2011.

Baseline project and proposed GEF activities

To address the threats posed by healthcare waste in Bishkek, “Swiss ecoentrepreneurship”, WHO and MoH implemented a HCWM system in the National Republic Hospital in Bishkek in 2009, testing two non-burn approaches to health-care waste. Based on the outcomes of this pilot project the “*Standards on the safe handling of medical wastes*” were adopted. Subsequently, round tables were conducted to discuss with stakeholders the pilot results as well as earlier conducted costs assessments comparing a “*centralized*”, “*decentralized*”, “*cluster*” or “*mobile*” treatment approach for the City of Bishkek. Based on the cost assessment results, stakeholders came to the conclusion that a “*cluster*” approach using autoclave technology was the most economically sensible and a safe, economic and ecologically friendly solution for the treatment of HCW in Bishkek. A decision was then reached on the approach towards HCWM in Bishkek, and taken up in the 2012-2016 National Health Reform Programme “*Den Sooluk*”, the below presented baseline project and proposed GEF activities are entirely in line with “*Den Sooluk*” programme.

1. HCWM National plan, implementation strategies, and national and city-wide policies enhanced. .

The project will assess and strengthen the national policy and regulatory framework, and national strategies for healthcare waste management (HCWM), mercury phase-out and elimination of unintentional POPs releases from the healthcare sector. The national plan and strategy would be reviewed and adapted to reflect approaches for Bishkek and rural areas, describing approaches for centralized, cluster, and in-premise treatment systems and their corresponding infrastructures; the development or integration of recycling networks and safe disposal of wastes; set-up of centralized and in-premise storage for healthcare mercury waste; the promulgation of standards for mercury-free devices and updating standards on HCW management (partly based on prior conducted assessments as well as on UNDP GEF and WHO rapid assessment, costing, and other tools (see also component 2)).

- *MoH - Republic Center for Infection Control, authorities of the Department of Sanitation and Epidemiological Surveillance* will take the lead and provide the necessary resources to facilitate the review of the national plan, strategy and regulations on HCWM.

- *WHO and Swiss Red Cross (SRC) will provide the necessary technical assistance to adequately reflect tested approaches, results and conducted assessments from SRC/WHO supported HCWM activities in the national plan, strategy and regulation.*

Additionally, this project component will improve national training programmes and training-of-trainers programmes/initiatives for HCWM and mercury management, applying guidance and lessons-learned resulting from the global GEF/UNDP/WHO Healthcare waste management project. Education curricula (for future medical staff) will be revised/improved based on the “*Global Training Package*” developed in partnership with the University of Illinois in Chicago. Training at healthcare facility level will be improved based on the “*Master curriculum for Healthcare waste management training for HCWM Coordinators*” to effectively execute best HCWM practices at facility level.

- *Ministry of Health/Ministry of Education will take the lead and provide the necessary resources to review current existing curricula at national level, working with the University of Illinois in Chicago (UIC) to improve training opportunities both at educational facilities, healthcare facilities and other entities.*
- *Medical facilities: Will allocate to the project HCWM coordinators and trainers to help improve training at facility and cluster level based on the improved curricula developed with the help of MoH/MoE/UIC, as well as yearly recurrent costs to continue HCWM related training at facility level.*
- *Swiss Red Cross (SRC) will support the dissemination of project results related to training in rural areas.*

GEF funding would be allocated towards improving the national plan, strategy and regulations relevant to the reduction of UPOPs and Mercury releases. It will also analyze baseline information with respect to training, provision of expertise to improve training curricula at national and facility level as well as supporting the training-of-trainers.

2. *BAT/BEP HCWM systems and recycling, implemented for the City of Bishkek (Phase 1 & Phase 2)*

National experts will prepare the facilities to receive non-incineration HCWM systems and mercury-free devices. The preparation will include baseline assessments (I-RATs) for each of the 52 facilities, promulgation of facility-level policies and procedures, development of HCWM plans, training, institutionalization of BEP including waste segregation and minimization practices and ultimately making the necessary arrangement (e.g. infrastructures) for the installation of non-incineration technologies, their operation and maintenance.

Based on the outcomes of an initial costs assessment (2006), facilities in Bishkek will likely to be grouped in clusters according to location, excluding facilities that are located too far from any of the clusters and for which it is more feasible to install non-burn technologies on the premises. Clusters will be served by treatment technologies installed on the premises of the most suitable facility within that cluster.

The initial cost assessment identified a total of 11 clusters with an additional 9 decentralized treatment points. However, the approach might be adapted during the early phases of the project to reflect results from the baseline assessments.

Allocation formula

The project’s national implementing partners and key stakeholders will, during the initial stage of project implementation, agree on a formula for the allocation (“allocation formula”) of HCWM systems and mercury-free devices as well as evaluation criteria. The allocation formula will assist in the calculation of the total no. of technologies/ devices required per facility (among else based on I-RAT results such as no. of beds/patients, rate of infectious waste generation, waste treatment technologies in place (if any), current waste management practices, costs of installation and operation, dioxin estimation and Hg usage, among else).

The evaluation criteria will provide an opportunity to grade ‘non-technical’ project components, critical to the success of the project. Criterion will likely to be along the lines of:

- Ranking of the healthcare facilities (following I-RAT results) for the purpose of prioritizing interventions.
- Reduction of UPOPs and Hg releases to be achieved by allocating (additional) non-incineration technologies and Mercury-free devices (cost-effectiveness).
- Developed and signed Memorandum of Understanding (MoU) between the project and the healthcare facility, stipulating the roles and responsibilities of both, timelines as well as the transfer of technologies.
- Capacity of the healthcare facility to absorb (additional) non-incineration technologies, based on the current degree and potential of (further) institutionalizing of best practices at healthcare facility level:
 - Segregation and waste minimization practices;
 - Establishment and regular meetings of healthcare waste committee(s);
 - Presence and/or designation of storage location(s);
 - Contribution of co-financing resources in the form of staff time/allocation of space for non-incineration technologies and additional storage locations/ in-house HCWM training opportunities, etc.;
 - Existing or establishment of internal training opportunities of healthcare staff;
 - Willingness to adapt (green) procurement practices to sustain BEP and BAT;
 - Development, adoption and implementation of facility specific Healthcare Waste Management (HCWM) plans and policies, among else.
- Potential for financial sustainability of operating non-incineration technologies beyond the project’s duration (in case of centralized treatment locations this should include the development/existence of a business plan).
- Other results from the I-RAT and baseline assessment, including (critical) risk assessment (environmental, financial, operational, etc).

A result of the allocation formula might be that funding will go as a priority to the clusters and facilities performing the best. Depending on the actual costs of purchasing equipment and the assessed capacity of clusters at the project’s MTE, not all clusters or decentralized sites may get a technology. The evaluation and technology allocation formula is intended to incentivize facilities to implement project activities successfully and efficiently, and achieve the highest level of cost-effectiveness.

Several ways to reduce costs would be explored during the PPG phase of the project, such as 24 hour operation of technologies (would allow for smaller and thus less costly technologies), decentralized installation of shredders (e.g. at an allocated final disposal site) and if funding is tight, prioritization of the clusters and HCFs that managed to best institutionalize BEP, in particular waste segregation and waste minimization.

Phase 1: The first ~ 50% of facilities that meet the necessary requirements for technology installation will receive non-incineration technologies and Hg-free devices. After deployment, the project’s mid-term evaluation will review the promulgation of HCWM and mercury reduction policies, successful implementation of BAT/BEP in the facilities, proper operation and maintenance of the initial batch of non-incineration HCWM systems and mercury-free devices, safe storage of healthcare mercury waste, and effective training programs. The evaluation will include recommendations for improvement.

Phase 2: Based on evaluation results, and adapted approaches, the project will allocate the remaining HCWM systems and mercury-free devices, while outstanding needs and challenges in the “*First Phase*” facilities will be addressed.

- *Ministry of Health & Ministry of Education* will take the lead and provide the necessary resources to undertake HCF baseline assessments. Making use of national experts (as part of the SRC project) as well as medical and environmental MSc students (as per Latvia best practices), who will receive necessary training to conduct baseline assessments.
- *Medical facilities:* Whether functioning as a hub facility, or being serviced by a hub or decentralized entity, each facility (based on their function) will allocate to the project: yearly recurrent costs for operating HCWM and recycling systems (utilities, facility-wide training, maintenance, etc), as well as allocate the necessary space for technology installation, temporary storage of HCW and Mercury waste (facility contributions will be taken up in a Memorandum of Understanding between the project and the facility).
- *State Agency/Bishkek municipality:* Will provide to the project a dedicate landfill space to dispose of disinfected HCW (to ensure that it's not burned in the open), as well as allocate the necessary space for the installation of two decentralized shredders (in case the project takes this route).
- *Swiss Red Cross (SRC)* over the period of the proposed project, the SRC will support the deployment of non-burn technologies for medical waste treatment and syringes in rural HCF in Naryn, Issyk-Kul, Chui, Osh, Jala-abad and Batken Oblast, informing current project on lessons-learned best practices.

GEF funding would be allocated to analyze baseline information from the I-RATs, develop an allocation formula based on a final cost assessment, initiate the procurement of non-incineration technologies, shredders as well as other equipment/items necessary for successful project implementation (waste bins, protective gear, sharps containers, etc) and undertake the mid-term evaluation.

3. Mercury waste management and mercury reduction activities implemented at Bishkek facilities

A team of national experts will prepare the model facilities to receive mercury-free devices, which will include the implementing of guidance on the cleanup, temporary storage and transport of mercury from health care and demonstrating and evaluating accuracy, ease of use and costs of non-Hg alternatives (taking staff preferences into consideration). Mercury waste management practices will be implemented, safe storage sites set up, and mercury-free devices procured and distributed. The same phased approach (Phase 1 and Phase 2) will be applied for mercury devices as for treatment technologies (see 2.). Finally, a select number of workplaces in which mercury devices and chlorine are currently being handled will be analyzed prior to and following mercury and chlorine phase-out to establish pre- and post project contamination levels and inform international research.

- *Ministry of Health* will lead the development and adoption of guidance on cleanup, temporary storage and transport of mercury from health care and the phase-out of Mercury-containing medical instruments.
- *Medical facilities:* will allocate to the project yearly recurrent costs related to the adoption of mercury-free devices (incl. training), as well as spaces for temporary storage of Mercury waste.
- *State Agency for Environmental Protection and Forestry:* Will provide to the project technical expertise with respect to the management of mercury containing wastes, as well as support the development of regulations on mercury management (jointly with the MoH). Regulations related to mercury management will also benefit future endeavours undertaken by the KYR Government to improve mercury management outside of the healthcare scope.
- *Bishkek municipality:* Will provide to the project dedicated disposal options for Mercury waste.
- *Swiss Red Cross (SRC)* will support the dissemination of project results related to Mercury-free devices in rural areas.

GEF funding would be allocated to analyze baseline information, develop an allocation formula and procure mercury-free devices for healthcare facilities, support training of the trainers on sound mercury management in healthcare as well as the use of Mercury-free devices.

4. *Monitoring, adaptive feedback, outreach, and evaluation.*

This component is intended to provide means for monitoring and evaluation of the results of the project to backstop adaptive management of the programme. It will play a particularly important role during the mid-term evaluation, ensuring that lessons-learned and best practices will be integrated into “Phase 2” of the project. It will also enable consolidation of lessons-learned during the course of project implementation as well as dissemination of key experiences and best practices at national and international level.

- *MoH - Centre on the coordination of HCWM and infection control* will conduct workshops for decision makers, including training, dissemination of information and guidance related to best HCWM and mercury management resulting from the project.
- *Medical facilities:* Will support on-going monitoring of project implementation at facility level, through monthly reporting on project progress, challenges, needs, etc. Facilities will also assume yearly recurrent costs related to monitoring and adaptive management related to HCWM and Mercury management.
- *MoH, MoE, Swiss Red Cross (SRC), WHO, CDC* will support the dissemination of project results in rural areas.
- *State Agency for Environmental Protection and Forestry* will ensure that any project results (regulations, capacity, storage, disposal, etc.) related to the management of mercury will benefit future endeavours undertaken by the KYR Government to improve mercury management outside of the healthcare scope.

GEF funding would be allocated for continuous project monitoring, and adjusting project interventions based on identified needs and challenges encountered during project implementation. GEF funding would also be applied to develop replication tools to disseminate project results at national and regional level (e.g. through knowledge platforms, regional cooperation activities on infection control and environment & health).

B. 2. INCREMENTAL ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:

- Why the incremental /additional activities are appropriate/necessary to address the identified causes, issues;

As indicated in section B.1, yearly recurrent costs related to HCWM and Mercury management could be borne by the healthcare facilities, which is not only a significant contribution to the project but will also be the basis for financial sustainability in the long term. The same applies for educational facilities, which once interventions in improving current training opportunities and curricula have been completed, would be able to cover yearly recurrent costs. In addition, the Ministry of Health, its Republic Center for Infection Control and the Centre for the coordination of HCWM and infection control will be able to review policies, regulations and prepare necessary guidelines, provide training, undertake awareness raising, etc on a regular basis as part of their responsibilities assigned under “Den Sooluk” programme. However, the initial capital investment costs and “start-up” costs for migrating from current unsafe and environmentally polluting practices to non-incineration technologies and the phase-out of mercury containing devices cannot be covered by national budget allocations, due to severe budget constraints. It is for this reason that funding from the Swiss Red Cross and the Global Environment Facility is critical in functioning as an “agent of change” to assist Kyrgyzstan in putting in place the necessary sustainable structures to help move away from the unintentional production of UPOPs and Hg releases into the environment, to help meet their obligations under the Stockholm Convention and to allow the country to continue and continuously improve HCWM practices in the future. Without funding from the Global Environment Facility (GEF), the capital area would be unable to transition away from current health care

waste management practices and mercury-containing healthcare devices. Those currently being exposed to UPOPs and mercury emissions resulting from health care, as well as the global environment, will continue to remain at risk.

- Why the activities are complementary (incremental /additional reasoning)

As can be observed from Section B.6 Kyrgyzstan has undertaken efforts to improve the situation with respect to HCWM, often in partnership with the Swiss Red Cross – Swiss Development Cooperation, WHO, CDC, UNDP as well as other partners and donors. These efforts clearly show Kyrgyzstan’s continuous commitment to address the challenges faced with respect to HCWM. However, many challenges remain, among which addressing the HCWM situation for the capital Bishkek, where 60% of HCW is being generated, thus constituting the most significant contribution to UPOPs emissions. Although pilot initiatives have taken place in Bishkek, major interventions are necessary to create a tipping point and move away from unhealthy and environmentally practices to BEP and BAT. As such, the activities that will be supported by GEF funding can be considered entirely complementary.

Mercury: No activities have been undertaken to date to phase-out the use of mercury-containing devices. The proposed project is therefore entirely complementary, while building upon the efforts of the Ministry of Health and the State Agency to improve HCWM practices and those of the State Agency to reduce releases of mercury to the global environment.

- How the activities of the GEF/LDCF/SCCF projects will be replicated and catalized in the future; how the positive effects of the project will be maximized:

Under Component 4, replication tools will be developed to disseminate project results at national and regional level (e.g. through knowledge platforms, regional cooperation activities on infection control and environment & health). This is critical as rural HCFs not participating in this project or benefitting from the SRC’s technical assistance, will nevertheless be required to adhere to new country-wide HCWM and mercury legislation, practices, guidance etc. and need easy access guidance, knowledge and best practices. Project outcomes will also be disseminated with the help of project partners WHO, SRC, CDC and the Republican Infection Control Centre as part of activities pertaining to HCWM and infection control. Lessons-learned will be of particular interest to Central Asian countries as they face similar challenges with respect to HCWM and mercury phase-out. At national level, dissemination will be led by the National Centre on HCWM and infection control which conducts workshops for decision makers (including training) and disseminates information on new trends and regulations and standards proposed by international bodies. In addition (see also Section B.3 – Economic benefits) a key aspect of the project will be to ensure that HCWM for the capital area of Bishkek will be developed in such a way as to keep annual recurring costs as low as possible, moving away from more costly methods currently practiced and implement options for revenue generation with the objective to reduce budget allocation for HCWM in HCFs and make the transfer to non-burn and Hg-free technologies and devices economically attractive.

- Why the funding level of each activity is considered to be appropriate.

The Ministry of Health, its Republican Infection Control Centre, WHO and the Swiss Red Cross have undertaken preliminary costs estimates for various treatment scenarios (centralized, decentralized, mobile and cluster treatment) for the city of Bishkek, both for capital investment costs (non-incineration treatment technologies, shredders and needle cutters, shipment, installation and commissioning costs and estimates for accessories such as waste carts, tracks or ramps, boiler, etc.) as well as recurrent costs (labor, utilities, domestic waste collection, maintenance, protection equipment, supplies, biological testing transportation and admin costs, etc.). The funding level for the proposed project activities (as taken up in this PIF) are in line with these MoH/WHO/SRC cost estimates and are comparable and proportional to the funding level of activities undertaken in countries with similar economic conditions under the UNDP GEF global healthcare waste project. Because of the high GEF co-financing requirements, the Government of KYR has decided to lower the total budget for the proposal – and to fully explore (during the PPG phase) decide on cost-saving approaches for the proposed project (e.g. 24 hour operation of technologies, decentralized installation of shredders, prioritization of the clusters and HCFs that managed to best institutionalize BEP).

- Estimation of the global environmental / adaptation benefits of the project, including applied assumptions and methodologies

Based on the estimates from the 2006 NIP, the greatest contribution to UPOPs releases are made by incineration of medical wastes (7 g-TEQ). Unfortunately there is a great deal of uncertainty in the calculations due to the lack of accurate data on burning practices as well as Mercury releases from healthcare sector in Bishkek. Therefore, an accurate baseline will be established during the PPG phase of the proposed project to determine more precisely the emission reductions which the proposed project will be able to achieve directly and indirectly through replication across the country.

However, for the purposes of the PIF a rough estimate can be made. Based on preliminary waste assessments, 60% of Kyrgyzstan's HCW is generated in Bishkek, hence it can be assumed that Bishkek's healthcare sector is also the source of 60% of UPOPs emissions. Bishkek counts 6580 beds, mercury emissions based on an assumption of 2.8 g per bed/yr, would total approximately ~ 18 kg Hg/yr. Assuming the project would reduce mercury releases by 20% and reduce releases of UPOPs by 100%, this would result in direct reductions of UPOPs emissions by 5 g-TEQ/a and mercury emissions by 3.6 kg Hg/yr.

B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS (GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ [MAINSTREAMING GENDER AT THE GEF.](#)":

Human and Environmental Health Benefits: The health sector in Kyrgyzstan is the main source of UPOPs emission in the country (NIP, 2006) as well as a significant source of other toxic substances (e.g. mercury), impacting local and global human and environmental health. The project will benefit healthcare workers (such as doctors, nurses and hospital cleaning staff), patients (through infection control as a result of good waste handling practices in HCFs) as well as waste handlers, collectors, recyclers and scavengers who face hazardous working conditions when in contact with infectious and toxic healthcare waste. Communities living close to waste disposal sites (municipal waste dumps and landfills) or incinerators will also benefit.

Gender considerations: The PPG phase of the project will assess the gender aspects of healthcare waste management, ensure the participation, representation and buy-in of vulnerable worker and community populations in the project's formulation and mainstream gender into all activities to be undertaken as part of the medium-size project as per the "UNDP Technical Guide on mainstreaming SMC" and the UNDP guidance note on "*The why and how of mainstreaming gender in chemicals management*".

Economic benefits: A key aspect of the project will be to ensure that HCWM for Bishkek will be developed in such a way to keep annual recurring costs (containers, electricity, transport, etc) as low as possible, through grouping of hospitals in "centralized treatment hubs", efficient transportation schedules and routes, low energy consuming technologies, reusable containers, etc. In addition, the project will review options for revenue generation which may include: a fixed fee or a fee based on waste generation charged to the health facilities using the central or cluster treatment system; subsidy through an annual government budget allocation; partial coverage of expenses through a portion of the health insurance fund; etc. In addition, opportunities to sell sterilized plastic waste (syringes) will increase through better segregation and sterilization. Currently such plastics are in certain cases sold to plastics recyclers for production of clothes hangers, pots for plants, battery covers, yarn thread spools, and other items, such as covers for electrical wiring distribution.

B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE 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:

Risk		Risk Mitigation Measure
1. Unclarity of the roles and responsibilities of the two key ministries (Ministry of Health and the State Agency for Environmental Protection and Forestry) in aspects of HCWM resulting in no leadership, conflicting decisions, duplication, or slow implementation of project components.	M	All project stakeholders will be involved in the project’s proposal planning phase during which their roles and responsibilities will be clarified and agreed upon.
2. Slow or no enhancement, adoption and implementation of national policies, plans and strategies (including guidelines and standards) on HCWM which are key in creating an enabling environment for replication of BAT/BEP across the country.	L	The project will support project stakeholders in reviewing and strengthening the national policy and regulatory framework with respect to HCWM, and as such influence and facilitate the creation of an enabling environment. “Den Sooluk” includes HCWM components, which implies that upon approval State funding will be allocated to address HCWM. In addition, this project, in close collaboration with the MoH, is bringing together different donors (SRC, CDC, GEF, WHO) to provide incremental funding to allow the government to implement HCWM activities envisaged for Bishkek, which will ensure approval of strategies and plans.
3. Slow or poor implementation of BAT/BEP practices in healthcare facilities, related infrastructures, technologies, mercury phase-out, and/or training programs.	M	MoUs with HCFs will outline responsibilities and timelines. The <i>Component 4</i> evaluation will identify problems and recommend improvements (e.g. the midterm review will evaluate implementation of the “first phase”, and make recommendation for implementation of the “second phase”). The evaluation and technology allocation formula will also incentivize healthcare facilities to implement project activities successfully and efficiently considering HCFs that have best and fastest institutionalized best practices will be prioritized.
4. Technology procurement beset by delays, inadequate equipment, wrong specifications, lack of transparency, or non-compliance with UN bidding requirements and procedures.	L	The competitive bidding process will be centralized for all Bishkek facilities (to ensure economies of scale), will be transparent and adhere strictly to UN requirements and procedures. The project will ensure that technologies meet BAT/BEP and other standards.
5. Insufficient number of technology suppliers involved in the bidding and/or high purchase costs.	M	Ensuring sufficient outreach to vendors, also conducted within the scope of other UNDP/GEF/HCWM projects, will ensure sufficient vendors. Centralized high-volume procurement will help lower prices.
6. Little confidence of healthcare facilities and providers in non-incineration and mercury-free technologies, resulting in continued use of inadequate incinerators and mercury devices.	L	The project will share technical specifications, standards, test results, and experiences from the current UNDP GEF project. “Recipients facilities” will provide decision-makers at HCFs, national and regional level with information on non-incineration and mercury-free technologies. Finally, the MoH, SDC and in particular the Republic Infection Control Center are currently strong advocates for non-incineration technologies.
7. Environmental risks, such as earthquakes as well as risks posed by landslides (exacerbated by deforestation and the conversion of flatlands to marshes in the southern region of the country) are of particular concern. These risks might impact the project itself as well as replication of project results, in the situation that non-incineration technologies are installed in areas prone to such risks.	L	As part of an I-RAT and facility baseline assessment, environmental/health risks posed by the management of healthcare waste at facility level will be assessed. In addition, the project will ensure to include an environmental risk assessment prior to the installation of non-incineration technologies, in particular when technologies will be placed in a centralized location, servicing several healthcare facilities. These risks (in combination with a multitude of other aspects) will be considered as part of the allocation formula to ensure that non-incineration technologies are placed in secure locations.
8. The open burning of HCW at landfills or hospital sites creates greenhouse gas (GHG) emissions in the form of CO ₂ , CH ₄ , etc. In addition, the transportation of large amounts of HCW waste to landfill and dump sites, due to insufficient segregation practices, results in additional unnecessary GHG emissions.	L	The implementation of HCWM plans, training and BEP at HCFs will include components related to improved recycling rates and practices, based on the results of a feasibility report on the recycling of medical wastes. Improved waste segregation and minimization practices, as well as improved recycling rates and practices will result in a significant reduction of waste volumes, and GHG and dioxin emissions. Clusters will be served by

<p>Finally, certain hospitals sell PVC containing medical plastics to recyclers, however inadequate thermal processes, both practiced at healthcare facilities and by recyclers, are sources of GHGs releases. All these aspects contribute to climate change risks.</p>		<p>treatment technologies installed on the premises of the most suitable facility within that cluster. In this manner, the most efficient set-up (minimum transportation requirements and optimum operation of centralized technologies) will enable to keep GHGs emission as a result of transportation and operation of technologies at a minimum and minimize costs. Non-incineration technologies to be installed, will be energy efficient and depending on the type of equipment selected, the use of renewable energy sources will be explored (in connection with climate change mitigation programmes implemented by municipalities in the project areas). Unrecyclable disinfected health-care waste, will be transported to the municipal landfill site, where two decentralized shredders will further reduce waste volumes and waste will be disposed of in a dedicate landfill space/cell to ensure that it's not burned in the open, further eliminating UPOPs and GHG emissions.</p>
<p>Overall Risk Rating</p>	<p>L</p>	

B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

Management arrangements: The project will have two principal cooperating agencies at national level, the State Agency for Environmental Protection and Forestry (SAEPF) and the Ministry of Health. As stipulated in the project’s endorsement letter *“The project will be prepared and implemented by the State Agency on Environmental Protection and Forestry of the Kyrgyz Republic, in close interaction with the Ministry of Health of the Kyrgyz Republic”*.

However, the strong involvement in and ownership of the project of both SAEPF and the Ministry of Health will be key to the project’s success. If SAEPF would assume the role of executing agency, than it is expected that the Ministry of Health will assume the role of *“co-executing agency”*, or vice-versa.

Extensive consultations will be held during PPG phase, during which a preliminary project implementation structure will be agreed upon (including an extensive description of the specific roles and responsibilities of the national executing/implementing partner(s)) and stipulated in detail in the project document. The management arrangements will be finalized after the project has been endorsed by the GEF and the project document signed by the national executing/implementing partner(s).

A full assesement of all other relevant project stakeholders will be undertaken during the PPG phase. The key stakeholders include (preliminary):

- **World Health Organization (WHO):** WHO office in Kyrgyzstan as well as the Department for Public Health and Environment with support from other divisions (e.g., Occupational and Environmental Health).
- **Ministries and Government entities** involved with activities related to the management of HCW, chemicals, radioactive waste and mercury (e.g. Ministry of Economic Regulations and Trade, Ministry of Economy and Finance, Ministry of Emergency Services, National Statistics Committee, Municipality of Bishkek, National Agency for Local Government, among else).
- **Public and Private Healthcare facilities in Bishkek:** The project will partner with the HCFs identified in this proposal.
- **Bi-lateral and internation donor agencies** supporting activities in similar areas and providing co-financing to the project: Swiss Red Cross (SDC), Centre for Disease Control (CDC), PEPFAR, ABT Associates.
- **Private sector:** for example, service providers involved in hospital cleaning, waste collection, and disposal; entrepreneurs/enterprises involved in the manufacture, sale, distribution, installation, servicing, etc. of non-incineration and mercury-free technologies and related equipment; laboratories for the testing and certification, as well as recycling companies purchasing plastics from hospitals.

- **Professional associations and health alliances** including professional societies of doctors, nurses, dentists, laboratory technicians, infection control professionals, and hospital administrators; associations of hospitals and clinics (e.g. Hospital Association of Kyrgyzstan).
- **Workers unions** representing employees in the health sector, waste handlers, waste transporters, recyclers, and operators of centralized storage and treatment.
- **Training institutions** offering education and training in HCWM at national and facility level.
- **NGOs and CSOs** including environmental organizations, recycling networks, and groups representing the rights of people and communities affected by waste disposal (e.g. NGO “*Independent Ecological Expertise*”, NGO “*Preventive Medicine*”, “*ABT Associates*”, among others).

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The following initiatives are expected to provide useful information, lessons learned, or a good policy/regulatory foundation for the components to be carried out under the proposed project. Coordination with the executing agencies/entities will be ensured. As part of the PPG phase, a detailed description of relevant ongoing and planned activities at national level will be elaborated:

International level:

- GEF/UNDP/WHO: *Demonstrating and Promoting Best Techniques and Practices for Reducing Health-Care Waste to Avoid Environmental Releases of Dioxins and Mercury in Argentina, India, Latvia, Lebanon, Philippines, Senegal, Tanzania and Viet Nam* (GEF Grant: 10,326,455 US\$)
- GEF/UNDP: *NIP update, integration of POPs into national planning and promoting sound healthcare waste management in Kazakhstan* (GEF Grant: 3,400,000 US\$)
- GEF/AGENDA/HCWH/UNDP: *Non-Incineration Medical Waste Treatment Pilot Project at Bagamoyo District Hospital, Tanzania.*
- WHO-HCWH: *Global Initiative to Substitute Mercury-Based Medical Devices in Health Care*
- UNEP: *Global Mercury Partnership*
- GEF/UNIDO: *Environmentally Sustainable Management of Medical Waste in China* (GEF Grant: 11,650,000 US\$)
- GEF/UNIDO: *Environmentally Sound Management of Medical Wastes in India* (GEF Grant: 10,000,000 US\$)
- GEF/IBRD: *Demonstrating and Promoting Best Techniques and Practices for Managing Healthcare Waste and PCBs in Tunisia* (GEF Grant: 5,500,000 US\$)

National level:

- *Kyrgyzstan Medical Waste Management Strategy 2008 – 2012* (MoH/ Swiss Institute of Natural Sciences and Environmental Entrepreneurship, UNDP and Manas Taalimi project).
- *Target Program on Medical Waste Management and Control of Hospital Infections*: Research project on alternative medical waste treatment technologies implemented at 7 pilot HCFs in the city of Naryn (Talas Oblast), 10 pilot HCFs in the district Talas Oblast and at the Republican hospital in Bishkek City (2006-2008 , MoH/SDC/Sweden/ National Scientific and Practical Center for Infection Control/ NGOs "Preventive Medicine").
- *“Implementation of non-burn technologies (autoclaves) for medical waste treatment and syringes in rural healthcare facilities in Naryn, Issyk-Kul, Chui, Osh, Jala-abad and Batken Oblast”* (2009 – 2013) (MoH/Swiss Red Cross)
- *“State Sanitary and Epidemiological Surveillance”*, 30 days HCW inventory in 7 hospitals in Bishkek (MoH/Swiss, 2006).
- Swiss Red Cross/MoH (2005): Pilot project at the “*Bishkek City Perinatal Center*”. Testing of the technologies for decontamination of solid HCW (syringes) through autoclaving for subsequent implementation in pilot hospitals in Naryn Oblast.
- *“ToxCare”* (2009) (MoH/WHO/Swiss Institute of Ecoentrepreneurship) pilot project on the implementation of HCWM at the Republican National Hospital to test collection, storage and transportation systems for infectious HCW. The project resulted in the development of standard

- operating procedures for handling HCW and a needs assessment of Bishkek which led to an agreement on a cluster approach
- SAICM QSP TF: Kyrgyzstan - Updating the national chemicals management profile, development of a national SAICM capacity assessment and holding a national SAICM priority setting workshop in Kyrgyzstan - UNITAR \$50,950 (2nd round)
- SAICM QSP TF: Kyrgyzstan, UNDP and UNEP Partnership Initiative for the Integration of Sound Management of Chemicals Considerations into Development Plans and Processes. UNDP/UNEP, \$250,000 (6th round)
- SAICM QSP TF: Kyrgyzstan - Supporting SAICM and GHS implementation in the Kyrgyz Republic. UNITAR \$250,000 (10th round)
- SAICM QSP TF: Belarus, Kazakhstan & Kyrgyzstan - Network for Protection of Public Environmental Interests in the Kyrgyz Republic, Green Partnership & Local Self-Government Development Centre - Strengthening Capacities of Civil Society Organizations for National and Regional SAICM Implementation in the Eastern Europe, Caucuses and Central Asia region. Civil society \$160,000 (4th round)
- ”Capacity Building for Implementation of Sustainable Waste Management Principles in the Kyrgyz Republic” - development of National Strategy for Production and Consumption Wastes Management, expanding opportunities for private sector involvement in waste management.
- GEF/UNEP/UNITAR “*Khaidarkan Mercury – Addressing primary mercury mining in Kyrgyzstan*”

C. DESCRIBE THE GEF AGENCY’S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

As noted in Annex L of the document “*Comparative advantages of the GEF agencies*”, UNDP has a comparative advantage in the area of Persistent Organic Pollutants, specifically with respect to Capacity Building and provision of Technical Assistance. The proposed project will benefit from UNDP’s experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation.

Moreover, UNDP has a comparative advantage in all work related to the Millenium Development Goals (MDGs) and in poverty reduction. This proposed project will help improve health-delivery systems through the fostering of good healthcare waste management thereby supporting several targets under the MDGs.

In its capacity as GEF implementing agency for the UNDP/WHO/HCWH project “*Demonstrating and Promoting Best Techniques and Practices for Reducing Health-Care Waste to Avoid Environmental Releases of Dioxins and Mercury*,” UNDP is particularly well placed to demonstrate BAT/BEP which have been applied, tested and improved under this global project in seven countries (Argentina, India, Latvia, Lebanon, Philippines, Senegal, and Viet Nam).

The proposed project will build upon and take full advantage of the outcomes of the UNDP/WHO/GEF global healthcare waste project, including tools for rapid and baseline assessments of healthcare and waste treatment facilities; costing tools related to healthcare waste management and treatment scenarios; templates for facility-level HCWM policies; guidances on dioxin estimation, mercury sequestration, healthcare waste management plans, monitoring and evaluation, etc.; selection criteria and technical specifications for non-incineration treatment technologies and mercury-free devices; core competencies, curricula, training modules, and training techniques related to HCWM and mercury; informational materials on HCWM and mercury; and engineering designs, blueprints, and fabricated units of autoclaves and related equipment developed by the special project in Tanzania.

As part of the UNDP GEF global healthcare waste project, successful and strategic partnerships have been established with WHO, Health Care Without Harm, experts at the University of Illinois-Chicago’s School of Public Health and Great Lakes Center for Occupational and Environmental Safety and Health (WHO Collaborating Center), University of Dar Es Salaam’s College of Engineering and Technology,

AGENDA-Tanzania, Skoll Centre for Social Entrepreneurship of the University of Oxford, US Centers for Disease Control, and other organizations instrumental in the implementation of the proposed project.

C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:

The United Nations Development Programme (UNDP) has contributed with in-kind technical support and assistance for initial scoping meetings with Government counterparts and project stakeholders which took place in the preparation for the formulation of this PIF. That contribution is estimated to US\$ 25,000 from the UNDP Country Office in Kyrgyzstan and UNDP-HQ. Identification of further in-house cash contribution towards the initiative will be undertaken during the PPG stage of the project.

Considering the scope of the project, UNDP's in-house expert resources involved in health programs, particularly The Global Fund to Fight AIDS, Tuberculosis and Malaria at country, regional and headquarters level will be mobilized to contribute towards project implementation. UNDP's Capacity Development Group is providing advisory services on waste management in several African countries and will be harnessed to support the regional medical waste project during implementation. The level of involvement and corresponding monetary contribution can be assessed during PPG stage and mid-term/final evaluation of the project. In addition to this, the Resident Representative functions, human resources and facilities provided by the UNDP Country Office will be made available beyond strict cost recovery basis for successful project implementation.

The value of all of the above can be expected to exceed US\$ 100,000 during the life of the project.

C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

The **United Nations Development Assistance Framework (UNDAF) for the Kyrgyz Republic 2012-2016** focuses on three national development challenges to be addressed by the United Nations Country Team:

Pillar 1: Peace and Cohesion, Effective Democratic Governance, and Human Rights

Pillar 2: Social Inclusion and Equity

Pillar 3: Inclusive and Sustainable Job-Rich Growth for Poverty Reduction

The proposed project fits well into Pillar 3: "*Inclusive and Sustainable Growth for Poverty Reduction*", UNDP is a major partner for all the three identified outcomes:

Outcome 1: By the end of 2016, population, especially vulnerable groups, benefit from inclusive growth leading to decent and productive employment and improved access to productive natural resources, markets, services and food security

Outcome 2: By end of 2016, sustainable management of energy, environment and natural resources practices is operationalized

Outcome 3: By 2016, Disaster Risk Management framework in compliance with international standards established and effectively operationalized at national and local levels

National Priorities: Further develop the economy, reduce unemployment, and improve international economic cooperation with strategic partners; develop entrepreneurship and improve the business environment; protect the environment

Relevant MDGs: MDG 1: Eradicate extreme poverty and hunger; MDG 3: Promote gender equality and empower women; MDG 7: Ensure environmental sustainability and MDG 8: Develop a global partnership for development


UNDP's Country Office in Kyrgyzstan, in particular its *Environment and Disaster Management Unit* consisting of three experienced environmental management experts, and the UNDP “*Environment Protection for Sustainable Development*” Programme, consisting of 15 experienced environmental management experts have extensive experience in the implementation of GEF funded projects, such as those related to IW, CC, Biodiversity, POPs (SGP) and multi-focal areas projects (e.g. 'mainstreaming global environment in national plans and policies'). As such UNDP Kyrgyzstan is very well placed to follow-up on project implementation.

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)
Mr. Sabir Atadjanov	GEF Operational Focal Point	DIRECTOR, STATE AGENCY ON ENVIRONMENT PROTECTION AND FORESTRY	07/02/2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Mr. Yannick Glemarec Executive Coordinator UNDP-GEF		08/09/2012	Dr. Suely Carvalho GEF Principal Technical Advisor for POPs/Ozone UNDP/MPU/Chemical	212-906-6687	suely.carvalho@undp.org