

PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: Full-sized Project TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Elimination of Obsolete Pesticide Stockpiles and addressing POPs Contaminated Sites within a				
	Sound Chemicals Management Frame	Sound Chemicals Management Framework			
Country(ies):	Republic of Armenia	Republic of Armenia GEF Project ID: ² 4737			
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	4905		
Other Executing Partner(s):	Ministry of Nature Protection	Submission Date:	2011-12-30		
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration (Months)	48		
Name of parent program (if	N/A	Agency Fee (\$):	470,000		
applicable):					
► For SFM/REDD+					

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
(select) CHEM-1	Outcome 1.4 POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner.	Output 1.4.2 Countries receiving GEF support for environmentally sound management of obsolete pesticides, including POPs.	GEFTF	4,000,000	16,727,000
(select) CHEM-1	Outcome 1.5 Country capacity built to effectively phase out and reduce releases of POPs.	Output 1.5.1 Countries receiving GEF support to build capacity for the implementation of the Stockholm Convention.	GEFTF	476,190	1,795,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)	Others		(select)		
		Sub-Total		4,476,190	18,522,000
		GEFTF	223,810	895,240	
		Total Project Cost		4,700,000	19,417,240

B. PROJECT FRAMEWORK

Project Objective: Protection of health and environment through elimination of obsolete pesticide stockpiles and addressing contaminated sites with a sound chemicals management framework

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Capture and	TA	1.1: Site assessments	1.1.1: Detailed site	GEFTF	1,000,000	4,092,000
Containment of		and clean up design,	assessment and design			
Obsolete Pesticide		planning, support	documentation for			
Stockpiles and		equipment supply and	excavation/packaging and			

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 <u>Focal Area Results Framework</u> when filling up the table in item A.

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

Wastes	training for initiating	clean up works at the		
Trastos	works required at	Nubarashen site completed.		
	obsolete pesticide	1.1.2: Detailed site		
	burial and storage sites	assessment and design		
	undertaken.	documentation for		
		excavation/packaging and		
		clean up works documented		
		for at least 11 pesticide		
		storehouses completed.		
		1.1.3: 30 experts trained in		
		site assessment, 15		
		technicians trained in		
		hazardous waste		
		management and handling		
		and supplied with screening and portable analytical		
		tools, and basic personal		
		protection equipment.		
		protection equipment.		
	1.2: High concentration	Output 1.2.1: Up to 1,500 t		
	obsolete pesticides and	of obsolete pesticides and		
	contaminated materials	highly contaminated		
	(>500 ppm) and low	soil/debris from the		
	concentration	Nubarashen burial site and		
	contaminated soil and	at least 11 storage sites		
	debris (< 500 ppm)	packaged and securely		
	contained, segregated	stored pending destruction.		
	and packaged.	1.2.2: Up to 2,000 t of		
		POPs pesticide		
		contaminated soil and clean		
		up residuals from area		
		surrounding the Nubarashen burial site and		
		at least 11 storage sites		
		placed in secure bulk		
		storage pending treatment		
		and disposal		
		und disposur		
	1.3: Secure temporary	1.3.1: Operational secure		
	storage of high	hazardous waste storage		
	concentration obsolete	capacity for high		
	pesticide stockpiles and	concentration obsolete		
	low concentration	pesticides established and		
	cleanup residuals to	available for other POPs		
	prevent continued	and priority chemicals		
	environmental release	wastes.		
	developed and	1.3.2: Operational secure		
	operating on a	bulk storage/containment		
	sustainable basis	facility for low concentration POPs		
		pesticide contaminated		
		material established.		
		material established.		
	1.4: Burial and storage	1.4.1: The Nubarashen site		
	sites cleaned up,	cleaned up, monitored and		
	monitored and made	made suitable for future use		
	suitable for future use.	Output 1.4.2: At least 11		
		pesticide storage sites		
		cleaned up and made		
· · · · · · · · · · · · · · · · · · ·		suitable for future use.	1 1	1

	(select)	1.5: Supporting public consultation with affected public and institutional stakeholders on activities associated with the containment, packaging, cleanup, and storage of obsolete pesticides at the Nubarashen site and at least 11 storehouses.	1.5.1: Public consultation/awareness events in 15 affected communities along with supporting information products	(select)		
2.0 Obsolete Pesticide Stockpile and Waste Elimination:	ТА	2.1: Environmentally sound destruction of all remaining high concentration obsolete pesticide stockpiles	2.1.1: Collection, transportion and environmentally sound destruction at an established qualified commercial facility of up to 1,500 t of POPs and high concentration contaminated material.	GEFTF	3,000,000	12,635,000
		2.2: National capacity for the remediation/ treatment and environmentally sound disposal of low concentration POPs contaminated materials developed	2.2.1: Identification of low cost long term options for the environmentally sound remediation/treatment and disposal of up to 2,000 t of low concentration POPs pesticide contaminated material with 20 professional experts trained in the field			
		2.3: Demonstration of an appropriate low cost technology to treat/remediate low concentration POPs pesticide contaminated materials.	2.3.1: An operational demonstration scale remediation technology applied to low concentration POPs pesticide contaminated material, inclusive of 40 trained operational staff			

3.0 Institutional and	ТА	3.1: Legal, regulatory	3.1.1:Policies, legislation	(select)	406,190	1,665,000
Regulatory Capacity	IA	and technical guidance	and regulatory measures	(select)	400,190	1,005,000
Strengthening for		tools for management	respecting POPs wastes and			
Sound Chemicals		of chemical wastes,	POPs pesticide			
Management and		including POPs, and,	contaminated sites			
Contaminated Sites		contaminated sites	reviewed and updated			
		management within a	3.1.2. Technical guidelines			
		national sound	on operational safety			
		chemicals management	procedures for POPs			
		framework	pesticides waste handling,			
		strengthened	transport, storage and disposal, developed in			
			accordance with			
			international practice.			
			Output 3.1.3 Environmental			
			and health risk assessment			
			methodologies and			
			practices applicable to			
			POPs contamination			
			developed in accoradnce			
			with international practice.			
			Output 3.1.4: Legal and			
			regulatory measures related to assignment of			
			responsibility and liability			
			for POPs pesticides			
			contaminated sites,			
			supported by a national			
			system of site inventories			
			and prioritization			
			developed.			
		3.2: Sound chemicals	3.2.1: 18 training/awareness			
		management awareness	events on pesticides and			
		training for institutional	sound chemicals			
		and private sector	management for			
		stakeholders delivered	institutional and private			
			sector.			
			3.2.2: Training program on			
			implementation of health			
			and environmental risk assessment involving 50			
			practioners from the			
			institutional and private			
			sector.			
			3.2.3: Data collection and			
			reporting capacity			
			strengthened realtibe to			
			contribution to the Global			
			POPs Monitoring Program			
			and convention reporting.			

	(select)	3.3 Baseline health risk and receptor path impact profile of potentially affected populations and receptors developed	 3.3.1: Baseline health risk profile related to POPs impacts undertaken in 10 affected communities including identification o risk mitigation strategies as required 3.3.2 : Baseline POPs pesticides contamination profile in affected environmental media and agricultural production Output 3.4.1: 10 public 	(select)		
		POPs/chemicals public awareness programs delivered	awareness products related to POPs pesticides,contaminated sites and sound chemicals			
			management.			
4.0 Project Monitoring and Evaluation	ТА		4.1.1 Project Monitoring and Evaluation Reports	GEFTF	70,000	130,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
			Sub-Total	(select)	4,476,190 223,810	<u>18,522,000</u> 895,240
			Project Management Cost ⁵ Total Project Costs	(sereet)	4,700,000	19,417,240

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Ministry of Nature Protection	Grant	6,248,240
National Government	Ministry of Emergency Situation	Grant	5,089,000
GEF Agency	UNDP	Grant	200,000
Other Multilateral Agency (ies)	OSCE	Unknown at this stage	300,000
Others	EU	Unknown at this stage	500,000
Private Sector	Business Enterprises	Unknown at this stage	200,000
Others	Government of South Korea	Grant	2,000,000
National Government	Ministry of Emergency Situation	In-kind	4,500,000
Others	Governmnet of Brazil	Grant	100,000
National Government	Ministry of Nature Protection	In-kind	280,000
Total Cofinancing			19,417,240

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

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
UNDP	GEFTF	Persistent Organic Pollutants	Armenia	4,700,000	470,000	5,170,000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0

Total Grant Resources			4,700,000	470,000	5,170,000	
(select)	(select) (select)	(select)				0
(select)	(select) (select)	(select)				0
(select)	(select) (select)	(select)				0
(select)	(select) (select)	(select)				0
(select)	(select) (select)	(select)				0
(select)	(select) (select)	(select)				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 <u>GEF focal area/LDCF/SCCF</u> strategies <u>/NPIF</u> Initiative:

The project is fully consistent with the GEF-5 Chemicals focal area strategy, its Objectives: CHEM-1 (Phase out POPs and reduce POPs releases) as well as its specific Outcomes, Outputs and Indicators set for each objective as summarized in the following:

Relevant GEF-5 Strategy	Project's contribution
Outcome/Indicator	
Outcome 1.4 POPs waste prevented,	Component 1 of the project addresses the containment of the
managed, and disposed of, and POPs	substantial national legacy of obsolete pesticides (OPs) to
contaminated sites managed in an	prevent their continued general release into the environment
environmentally sound manner.	though the excavation, packaging and secure storage of high
Indicator 1.4.2 Amount of obsolete	concentration OPs and associated material, and secure
pesticides, including POPs, disposed of	containment of moderately contaminated materials. Component 2
in an environmentally sound manner;	will affect the environmentally sound disposal of high
measured in tons.	concentration OPs and waste, as well as contaminated materials
	(soils) above the low POPs content. Up to 1,500 t of obsolete
	pesticides and highly contaminated materials, and 2,000 t of
	moderately contaminated materials above the low POPs content
	will be disposed of.
Outcome 1.5 Country capacity built to	Component 3 is focused on expanding the national capacity to
effectively phase out and reduce	identify, prioritize, contain and remediate POPs and chemicals
releases of POPs	contaminated sites with resulting reduction in continuing POPs
Indicator 1.5.1 Progress in developing	and general chemicals contaminant releases. This includes
and implementing a legislative and	strengthening related to application of key tools such as health
regulatory framework for	and environmental risk assessment. More specifically, it will also
environmentally sound management of	provide for development of health risk and receptor baseline data
POPs, and for the sound management of	that will serve as a baseline for tracking reduction of POPs
chemicals in general, as recorded in the	releases through the tracking tool. This is to be done as part of a
POPs tracking tool.	broader sound chemicals management (SCM) framework.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

N/A

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

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.:

Armenia is a party to the Stockholm Convention (2001), the Basel Convention (1999) and the Rotterdam Conventions (2003). The country has also ratified the UNECE Aarhus Convention (2001) and signed PRTR Protocol to that convention. This action underpins Armenia's strong policy commitment to public consultation and participation, and its recognition of the importance of public declaration of pollutant releases as a key part of a SCM framework.

Armenia's "National Chemicals Management Profile" has been developed and updated with the technical assistance of UNITAR and the SAICM Quick Start Programme Trust Fund. Jointly with UNITAR and with the financial support of the Swiss Agency for the Environment, Forests and Landscapes (SAEFL) a Programme named "Strengthening the Integrated National Programme of Chemicals and Waste Environmentally Sound Management in the Republic of Armenia" was implemented (2004-2006). "The Armenia and UNEP Partnership Initiative for Sound Management of Chemicals and Implementation of SAICM in Armenia" Project was also implemented under the framework of the Quick Start Programme (QSP) of the Strategic Approach to International Chemicals Management (2008-2010).

The principle national plan specifically supporting the project is the Stockholm Convention National Implementation Plan (NIP) submitted in April 2006. Since that time the NIP has been implemented through various initiatives, including a national capacity building (GEF-4) project on PCBs and other POPs issues, and participation in a regional capacity building project on POPs pesticides. Nationally, addressing the obsolete pesticide issue is assigned a high national priority as reflected in the formation by the Government of the Inter-Agency Commission on the Elimination of Obsolete Pesticides in 2010 with the Ministry of Emergency Situations (MoES) as its chair and representation from the Ministry of Nature Protection (MNP), Ministry of Health (MoH), Ministry of Agriculture (MinAgri), and a leading NGO, the Armenia Women for Health and a Healthy Environment (AWHHE).

More broadly, the project is aligned with the Country's current updated National Environmental Action Plan (NEAP) adopted in 2008 which prioritizes development of a national chemicals management framework and addressing hazardous waste legacies, including POPs and specifically POPs pesticides within that framework.

Armenia has finalized a national portfolio exercise for elaboration of an overall programmatic approach to GEF-5 in cooperation with the GEF Secretariat. The proposed project is the main element of the portfolio in the Chemicals Focal area and one of the highest priorities overall.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Country Context

Armenia is a small land locked country located in the Caucasus region of South Eastern Europe. It gained independence in 1991. Following a major decline economically in the 1990s, the country has more recently enjoyed significant economic growth. Socially and politically it is characterized as having a strong national identity reflective of its long and deep cultural history, a stable democratic government, and well developed civil society, particularly as represented by active environmental NGOs. However, like other states of the Former Soviet Union, it still suffers from the cumulative environmental legacies associated with a long period of a centralized command economy. Armenia with its highly developed agricultural sector (19% of GDP) had among the highest application rates of pesticides, particularly organochlorine pesticides (OCPs) in the Soviet Union. As a consequence human and environmental impacts associated with this use are widespread. Similarly, retained stockpiles of obsolete pesticides and associated contaminated sites are the leading manifestation of historical environmental legacies and source of continuing health risk and environmental degradation. More generally, such legacies including those associated with chemicals from closed industrial operations and resource extraction.

Background

The overall situation respecting POPs pesticides is defined by the 2006 NIP and incrementally by the various action plan activities that have been undertaken since. The NIP provides a compendium of available data on the use of pesticides, including POPs pesticides, in Armenia and on the presence of POPs in the environmental media, food and human receptors, including a targeted sampling program undertaken as part of the GEF funded NIP EA project. The historical intensive use of OCPs is documented with application levels up to 35 kg/hectare being recorded. The principle POPs pesticides used and widely detected in environmental media and receptors were DDT and HCH, although other POPs pesticides (HCB and Heptachlor) have been detected in soil and food stuffs. All POPs pesticides except HCH were

banned in the 1970s and 1980s. HCH use was restricted in 1985 and is now being eliminated.

Prior to 1991, Armenia had a system of pesticide distribution common to other CIS countries when part of the Soviet Union, namely through regional and local distribution centers down to the state farm level and administered through specialized organizations under the Ministry of Agriculture. At each level, there were storehouse facilities of various sizes depending on the intensity of agricultural activity, the largest being at regional and local level. In 1990, it was estimated that overall approximate 600 such storehouses existed in Armenia, although since that time these have been consolidated and the distribution system has been privatized with those remaining being operated by agro-business enterprises.

In the late 1970s and early 1980s, an all-Union program was initiated to collect the accumulated banned and expired pesticides from the distribution system for consolidation and disposal in what were to be engineered landfills or burial sites. The NIP identifies one such site that was developed in 1982 at Nubarashen, approximately 20 km SW of Yerevan on an elevated slope in a communal grazing area and near the Erebuni State Reserve protecting an area preserving agro-biodiversity. Original records indicate that that the burial structure consisted of 4 rectangular, clay lined and capped cells approximately 5 m deep at the base in an overall site approximately 120 m by 20 m. 33 different organic and inorganic pesticides (total of 512 t) were recorded as being disposed of in the site with the largest quantities being DDT (193 t) and HCH (48 t). Until 1989 the site was regularly monitored and maintained, but this was then discontinued. In the period 2003-2004, the site became generally recognized as presenting a major environmental risk due its location on an unstable slope and drainage course which resulted in sliding of the burial structure down slope, water in-flow, and release of buried material due the vandalism and illegal excavation.

Awareness of this situation was substantively the result of an initiative by the NGO Armenian Women for Health and a Healthy Environment (AWHHE). In 2004, a government decision officially designated the situation as a priority issue, and mandated and funded Ministry of Emergency Situations to take action. The NIP also notes the presence of OP contamination around remaining and former storehouses and in various municipal landfills in agricultural areas. In general, residual contamination from OCPs, generally, DDT, and HCH, in particular, exists at the storehouses and in several of the landfill sites, the latter suggesting that landfill disposal of obsolete pesticides may have also occurred at these sites.

Based on the above, addressing the issue of obsolete pesticide stockpiles and wastes, land contamination associated with historical storage and disposal practice, and understanding the health and environmental impacts resulting from them is identified as a high priority in the NIP Action Plan. As a result, a number of national and international initiatives have been undertaken since the adoption of the NIP in 2006, particularly in relation to the Nubarashen burial site but also in identifying and assessing major remaining OP stockpile sites.

In 2004, MES undertook emergency rehabilitation of the Nubarashen site that included repairs to the original surface drainage, restoration of cover and installation of security fencing. However, illegal access continued with destruction of fencing and containment due to excavation occurring including a major incident in early 2010. In addition, sliding of the burial site itself continued with the consequence that substantial breaches in the original cell containment have occurred. In the summer of 2010, the government through MoES made a more substantial investment in stabilization of site. This involved installation of an expanded engineered surface cap over the original burial area and estimated area where sub-surface sliding had occurred (130 m by 30 m). This consisted of a compacted clay cap, drainage provisions, and a covering layer hosting stabilizing vegetation. In addition, a concrete surface runoff drainage system upstream and along the sides of the burial berm was installed as was robust fencing, signage and a locked access gate. Permanent manned security by MoES officers is also now provided for.

Moreover, soil sampling around the burial site as well as down slope from it and into

surrounding settlements, as well as sampling of agriculture production was undertaken through cooperation between a local and international NGO⁶ using EU funding. High levels of DDT were detected in soil and drainage channels immediately adjacent to the site with levels decreasing more remotely although some cases they exceeded local MAC levels. PCDD/F was also detected close to the site, possibly originating from by-product contamination contained in the original OCPs.

In 2010, the Government also formalized its prioritization of the obsolete pesticide issue institutionally with the appointment of an Inter-Agency Commission on the Elimination of Obsolete Pesticides in 2010 with the Ministry of Emergency Situations as its chair and representation from the Ministry of Nature Protection, Ministry of Health, Ministry of Agriculture, and AWHHE. This priority as a major environmental security issue also led to the government making a formal approach to the international community for assistance in addressing the issue, including to OSCE and subsequently the GEF and UNDP, recognizing that national resources beyond simply maintaining the current level of containment and security for the site was limited.

OSCE has responded by supporting awareness of the issue and solicitation of funding support in the EU and bilateral agencies (USAID) as well as supporting a number of locally based studies with MoES and the National Academy of Science (Centre for Ecological-Noosphere Studies). The latter have completed downstream water sampling program that demonstrates DDT water and sediment contamination well down stream of the burial site. OSCE is currently planning a more substantial technical "feasibility" study involving local and international experts that will undertake analytical characterization and delineation of the actual burial site as well as some additional local health impact data collection and an initial options assessment for physically addressing the site.

Attention has also been paid in recent years to the residual OP storehouse stockpiles, associated contamination and impacts. The Ministry of Agriculture has identified 11 such storehouse sites, all former central distribution centers and now private agro-businesses. It is estimated that these contain approximately 120 t of OPs. A current program being undertaken by AWHHE has assessed eight of these in four regions and has generated survey estimates of 55-57 t of OPs, the largest (Artashat) being a site with 27 t and including one (Jrarat) containing up to 15 t of DDT. The AWHHE/ARNIKA work noted above also undertook assessments and sampling at three of these sites (Jrarat, Echmiadzin and Masis) which served to confirm that there was significant contamination in and around these storehouses and most had a continuing high risk of general release into the broader environment.

More generally, work related to contaminated sites and other POPs contaminated sites in Armenia has been limited. It is anticipated that PCB contaminated sites will be identified as part of the current GEF-4 MSP PCB and some specific industrial sites including a large copper production facility (Alaverdi) has been assessed by AWHHE/ARNIKA. However, the development of systematic documented inventory and prioritization has not been undertaken.

A final key component of the national capacity baseline is the development of modern, high quality efficient analytical facilities, and supporting sampling/monitoring capability in recent years. Though a bilateral NATO program, the Center for Ecological and Noosphere Studies in the National Academy of Science is equipped with a fully accredited laboratory capable of doing high volume analysis on a wide range of contaminants in soil and water including a complete range of OCPs. This capability represents the kind of capability needed to support the detailed assessment and excavation operations likely required for this project.

In summary, Armenia has a significant critical issue associated with OP stockpiles, including POPs pesticides, which requires immediate attention. The work available strongly indicates that the current containment of these stockpiles, particularly that associated with the Nubarashen

⁶ Armenian Women for Health and a Healthy Environment (AWHHE) and ARNIKA of the Czech Republic

burial site, is generally compromised and continuing releases are occurring with expanding contamination around them and into the broader environment and into human and biological receptors, namely agricultural production. The volumes initially stored or contained have been significantly magnified as contamination spreads to surrounding surface and subsurface soil, a situation that will continue and significantly increase the ultimate cost of correcting the situation in the absence of urgent action. More generally, the country needs to initiate the development of the basic tools to address contaminated sites, something that is a basic component of a national SCM framework.

Barriers

A number of key barriers exist that need to be overcome for Armenia to address the serious immediate risks posed by OP stockpiles and the resultant contamination from them, as well as the longer term issues associated with contaminated sites management and integrating the responses in both cases into an overall SCM framework. These are summarized below in the context of their being addressed by the current project:

- i) <u>Financial barriers</u> associated with assembling sufficient immediate national and international financing to support the containment and ultimately the elimination of OP stockpiles and current contamination needs to be overcome;
- ii) <u>Technical capacity barriers</u> exist with respect to selecting the most cost effective, environmentally sound and nationally accepted technologies and approaches to OP stockpile containment and elimination. Similarly, there are technical capacity deficits in systematically addressing contaminated sites generally, and tools such as risk assessment and monitoring, all of which are required for an effective SCM framework;
- iii) <u>Institutional/regulatory barriers</u> exist with multiple national and international agencies involved and the need to address the issue without a fully developed and coordinated regulatory framework;
- iv) <u>Information barriers</u> related to the extent and impact of historical OP management practice remain, particularly with respect to possible undocumented burial sites and storehouses; and
- v) <u>Awareness barriers</u> created by limited understanding and awareness of both the public and directly impacted stakeholders remain and need to be addressed using well established civil society vehicles working in close association with responsible agencies and the academic community.

Project Strategy and Design

The above country context, background, identification of current barriers and baseline situation analysis guides a project strategy and design for addressing the obsolete POPs pesticide and contaminated site issue consistent with the overall project objective stated above. The more detailed requirements of this strategy are the following:

- i) Containment and elimination of the current high priority risks associated with OP stockpiles and associated contamination with an emphasis attached to rapid containment and prevention of continuing releases;
- ii) Accommodation of the reality that mobilization of overall required financing to achieve the above may take time but also the need to optimize the use of GEF financial resources within a relatively short time frame defined by the GEF-5 project implementation period;
- iii) Utilize knowledge acquisition obtained in addressing the near term priority above to strengthen the longer term priorities of building the country's capacity to address contaminated sites, and provide technology and develop infrastructure to support POPs and more generally SCM management; and
- iv) Capitalize on Armenia's well developed civil society capacity and specifically that which

has to date made a major contribution to the knowledge base and awareness of the OP issue and offers a replicable global model.

The basic strategy and project design proposed to achieve the above requirements involves a project structure with three principle components. Components 1 and 2 delineate an incremental approach to addressing the immediate priority of eliminating the currently identified obsolete pesticide stockpiles and associated contamination, while Component 3 provides the institutional, regulatory, technical, reporting, information exchange and awareness tools to support the first two components and broaden Armenia's capacity to address contaminated sites generally within a SCM framework,

<u>Component 1</u> serves to i) comprehensively define the extent of contamination at the Nubarashen burial site and identified OP storehouses in detail utilizing the current but limited baseline information available; ii) prepare the required design and planning documentation to initiate capture, segregation, and containment of obsolete pesticide stockpiles and contaminated material; iii) undertake the physical excavation, packaging and removal of the recovered stockpiles and contaminated materials; and iv) provide for its secure temporary storage. This component essentially accomplishes the project's immediate priority requirement above, namely preventing further release of OPs and their general spread into the global environment.

Recognizing that the amount of contaminated material has likely increased significantly due to the failure of the initial containment structures at Nubarashen and spread around poorly maintained/damaged storehouses, a range of contamination levels can be expected to exist in materials needing to be captured. A process of segregation of highly contaminated material and more moderately contaminated material will be built into the excavation/clean up design at the Nubarashen site and as applicable OP storehouses. The reasoning for this waste segregation approach by contamination level is based on a recognition that destruction by conventional POPs/chlorinated chemical waste technologies is expensive and the volume to which this is applied should be minimized if possible to optimize the use of available resources and maximize the volume of material that can be addressed rapidly. On the other hand, materials of lower contamination levels and inherent risk may be more economically managed by low cost treatment and disposal technologies potentially over a long period of time. For purposes of the PIF, a relatively conservative indicative level of 500 ppm OCP has been selected as a concentration threshold between high and moderate concentration material. The estimate indicative volumes involved are up to 1,500 t of high concentration waste (>500 ppm) and 2,000 t of moderate concentration waste (50 ppm to 500 ppm). The 500 ppm level and volumes will be re-assessed during the PPG stage based on the detailed site assessment results, evaluation of treatment/destruction/disposal technical options and their cost, and a risk assessment.

Component 1 will also provide for development of a secure storage facilities in accordance with international standards applicable to hazardous waste storage (i.e. Basel Convention guidance) inclusive of appropriate spill containment, emergency response capability, fire protection, ventilation and security barriers (fencing, locked gates/entrances, surveillance). It should be noted that development of this facility will also consider its broader value as longer term national infrastructure for the secure retention of hazardous chemical wastes, including POPs. This will specifically be pursued in relation to current work on PCB stockpiles under a separate GEF-4 MSP project. Storage options for lower contaminated material would likely involve covered and monitored storage, potentially tailored to a local treatment option that would likewise link to broader applications for other POPs and chemicals soil contamination.

The component will also include a public consultation component to support participation of NGOs that will ensure that public stakeholders currently impacted by these sites, as well as by any storage and treatment facilities, are fully aware of what is being undertaken and that their concerns are accommodated in the process.

<u>**Component 2**</u> covers the elimination of the captured and contained contaminated material of each segregated type discussed above.

For highly contaminated materials whose destruction represents a priority in terms of local risk and achieving GEF strategic objectives of maximizing volume of obsolete pesticides eliminated, a commercially available destruction option will be competitively selected based on a performance based specification benchmarked against international standards (particularly the Basel Convention's guidance materials adopted by the Stockholm Convention and more recent GEF STAP guidance on POPs disposal technologies) and including i) a minimum destruction efficiency (DE) of 99.99%; ii) internationally accepted emission and discharge standards (including PCDD/F as applicable); iii) demonstration of BAT/BEP applicable to the technology; and appropriate environmental safeguards procedures.

For the moderately contaminated material that is assumed to primarily consist of soil along with some clean up debris, the approach would be to support the development and/or demonstration of a low cost technology suitable for treatment of these materials locally (biological treatment, import of other soil remediation technologies, etc.). Again, the selection of final option would be a subject addressed in the PPG stage as will broader applications to other contaminated soil applications.

A key consideration in the project design is recognition of both the high cost and likely need for additional international funding for Component 2, something that will take time to mobilize and might well involve commitments over a number of years going beyond the GEF project's duration. To accommodate this possible eventuality, a potential approach that will be investigated in the PPG stage is to develop a rotating fund, initially capitalized by the GEF and initial funds mobilized by other donors that would allow incremental disposal of the high concentration stockpiles over a longer time frame if required as other international funds were disbursed. The approach of providing for secure storage of these and potentially future POPs stockpiles early in Component 1 would serve to facilitate this. The feasibility of funding mobilization of other donors is already being explored directly by the government with several donor countries and jointly with OSCE who are focusing on the EU where assistance to CIS counties in this area is an identified priority.

<u>Component 3</u> is a capacity strengthening component intended to address regulatory gaps, development of key technical tools and expertise and increased public and stakeholder awareness related to contaminated sites and SCM. It also provides for expanded baseline health and receptor data collection in support of Armenia's contribution to the global information exchange and POPs tracking. The primary focus of the regulatory support is to fill current gaps related to having a systematic control capability for identification and prioritization of contaminated sites as well as updating associated technical guidance and standards based on international norms and techniques. This specifically includes developing capacity related to risk assessment and risk reduction strategies associated with POPs/chemicals exposure and the monitoring of such exposure. All of this will be undertaken in coordination with SAICM Quick Start activities so as to support an overall objective of integrating these initiatives into the developing SCM framework.

Baseline Project

The baseline project as described in the following by Component and major activity is structured on the assumption that the indicative co-financing listed in Part I Section C above is available but GEF funding is not.

<u>1.0</u> Capture and Containment of Obsolete Pesticide Stockpiles and Wastes (indicative co-financing – US\$4.092 million): The baseline project would substantively complete this component, given that a significant indicative co-financing allocation is theoretically available to it. However, this might only be realized over a longer time frame than if GEF funding was included. It would also not necessarily provide for completion of the work to international standards, nor fully provide for the required training and technical assistance appropriate to

undertaking such operations. In the baseline project, the substancial part of the funding is assumed to come from the government primarily through in-kind and cash contributions from MoES and to a lesser degree MNP. This funding would be directed to the physical civil works involved in excavation, packaging and closure of the Nubarashen site. This would likely be done without specific consideration of segregating high and low concentration materials, something that effectively increases the amounts requiring secure storage and high cost disposal. Private sector funding of OP storehouse sites would be antiticipated for similar operations. A basic site assessment and clean up design would be covered by the OSCE grant project and for OP storehouses by the current NGO survey work. It is also assumed that the basic secure storage infrastructure would be made available by the government but with limited resources applied to upgrading and maintenance to international standards. Post closure monitoring and public consultation at the level currently applied under local practice would continue but potentially not as rigerously as would be the case with GEF involvement. No dedicated national capacity strengthening in contaminated site assessment and hazardous waste handling and management would be provided for.

<u>2</u>.0 Obsolete Pesticide Stockpile and Waste Elimination (indicative co-financing -US\$12.635 million): The Baseline project would provide for at least partial treatment and destruction of the obsolete POPs pesticide stockpiles and wastes but funding would be insufficient to address all of the material generated in Component 1. In particular and as noted above, the portion classified as high concentration POPs waste would likely be larger than estimated for a case where Component 1 funding was sufficient to rigerously segregate high and low concentration waste. Where insufficient funds were available to complete stockpile and waste elimination in the baseline project, some combination of destruction of high concentration material and making provision for addressing low concentration material and contaminated sites in the country would be anticipated. One option might involve maximizing destruction at available export facilities of high concentration materials but with little or no resources being available for developing local longer term capability and expertise to address lower level contaminated soil/solid wastes. Alternatively, a second option might involve most of the high concentration material remaining in secure storage until some future time when funding is available for destruction and what resources that are available go to development and operation of local treatment capability, likely with a reduced probability of being successful or sustainable. The funding for this part of the baseline project would come primarily from government cash contributions and bilateral grant funding identified as being available from donor countries, namely South Korea and Brazil. In any event, the baseline project falls short of the objective of eliminating POPs stockpile and waste legacies in the country.

3.0 Institutional and Regulatory Capacity Strengthening for Sound Chemicals Management and Contaminated Sites (indicative co-financing – US1.665 million): The baseline project for this component would undertake the various initiatives reflected in the Component 3 Outcomes and Outputs above but a somewhat reduced levels and without the benefit of the incremental international support in the development of regulatory instruments, technical guidelines and methodology, training, and a robust public awareness program. The baseline project would depend primarily on both in-kind and grant contributions from the government (specifically MNP and MoES).

Expected Results

The project will come to address the currently identified set of obsolete POPs in the country. Consistent with the overall project objective and the outcomes above, the principle results expected from the project are:

- i) Capture, segregation, packaging and secure storage of up to 1,200 t of obsolete pesticides and high concentration obsolete pesticide contaminated material and 2,000 t of moderately contaminated material such that further releases and spread of contamination is prevented;
- ii) Environmentally sound destruction of up to 1,500 t obsolete pesticides and high concentration obsolete pesticide contaminated material and remediation of up to 2,000 t of moderately contaminated material (soil/surface materials around poorly managed storages along with clean up debris);
- iii) Development of a secure storage facility for hazardous chemical waste, including POPs to international standards inclusive of sustainable care and custody arrangement;
- iv) Development of domestic treatment capability for soils contaminated with chlorinated chemicals including POPs;
- v) Comprehensive regulatory and technical standards framework for contaminated sites management integrated into the national sound chemicals management framework;
- vi) Expanded baseline data on POPs in environmental medium and key receptors;
- vii) Establishment of risk assessment methodologies and risk reduction strategies consistent with international practice; and
- viii) Increased public awareness and engagement respecting POPs and SCM.

Anticipated Implementation Arrangements

Ministry of Nature Protection, with GEF political and operational focal point, as well Stockholm Convention focal point responsibility, will be the project Executing Agency. Government nominated National Director for UNDP environmental governance portfolio will oversee the project on behalf of the Ministry ensuring its conformity and synergy with the national environmental policy directions. MES will share project execution with the MNP. MES with its subordinated Armenian Rescue Service who has mandated exclusive responsibility for responding to major environmental security issues and currently exercises care and custody responsibility over the Nubarashen site. The Ministry, within its mandate, will participate in field level and other operational activities envisaged by the project. Other ministries, NGOs, relevant scientific and professional institutions will be involved into the project implementation at the different stages of implementation.

The UNDP Country Office in Armenia will support project implementation activities in accordance with UNDP rules and procedures.

B. 2. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund/NPIF) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The overall incremental reasoning supporting the application of GEF funding to this project is primary based on the need for rapidly addressing the substantive OPs legacies that represent a major environmental security risk, both globally and locally, and which would otherwise not be addressed in a timely and comprehensive manner in the absence of the kind of intervention that the GEF is designed to provide. It also ensures that an appropriate level of international expertise and technology transfer occurs to provide the country with sustaining capacity in management of hazardous wastes like POPs and other legacies. This also connects to enhanced synergy between addressing near term concrete POPs and chemicals release reduction, with institutional, technical and infrastructure capacity to sustain that reduction into the future, and offers continuing realization of global environmental benefits. The following notes more specific aspects of this increment reasoning and associated global environmental benefits for each project component.

Component 1 of the project will capture and contain the principle high concentration POPs pesticides legacies identified to date in Armenia, and associated contamination that their historical management practice has caused. On a practical level the GEF financing is the increment required to fully achieve the project objective which would otherwise be left incomplete and the overall global environmental benefit of eliminating up to 1,500 t of POPs pesticides and associated highly contaminated material and up to 2,000 t of low contaminated material is achieved. In absence of GEF funding, the best case scenario would be that the major stockpile site would be cleaned up, but most of the excavated material would be stored for disposition at an unknown point in the future, the standard of practice associated with site closure and remediation would be to some lower standard than might normally be considered appropriate under the Convention and the timeliness of these actions would be less predictable or assured. Effectively, for purposes of an incremental environmental benefit analysis against the baseline project, the GEF investment provides a high level of assurance that immediate POPs release is eliminated.

<u>Component 2</u> of the project with GEF funding provides for the permanent environmentally sound elimination of all currently identified POPs pesticides and associated contamination in the country (up to1,500 t) through destruction or irreversible transformation as required under Article 6 of the Convention in accordance with Basel Convention's guidance and GEF mandated standards of environmental performance and safeguarding. Likewise up to 2,000 t of low contaminated material will be treated to eliminate residual POPs content. The alternative is some significantly lesser quantity of these POPs being destroyed and remaining in the country with associated risks of release to the global environment. For purposes of an incremental environmental benefit analysis against the baseline project, the GEF investment would cover approximately half these volumes, noting that in reality the leveraging effect of GEF funds would in its absence result in less baseline resources being available and effectively the GEF impact would be significantly larger.

<u>**Component 3**</u> of the project with GEF funding broadens the experience and lessons learned in the first two components as enhanced by international inputs to ensuring that a comprehensive regulatory basis and technical capability exists in the country for addressing contaminated sites, including POPs contaminated sites, and to do so within a broader SCM framework. This will offer a broad range of both global and local environmental benefits into the future through prevention and reduction of POPs and chemicals contaminant release.

In summary, the project represents a cost effective intervention by the GEF in achieving the above global environmental benefits while assisting in leveraging significant participation by other international donors that otherwise might not be attracted. It represents an opportunity both for the country and the GEF to achieve rapid advancement of the Stockholm Convention's objectives in the country with generically similar OP issues to others in the region. As such the experience gained and lessons learned should serve as an example for cost effective replication elsewhere, not the least of which is the major benefits of integrating the efforts of civil society into the process.

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/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read <u>Mainstreaming Gender at the GEF.</u>:

The overall socioeconomic benefit of the project, as is the case for any major intervention of this type, is essentially derived from the elimination of critical POPs that would otherwise be released into the general environment with the impact that has on environment and human health. The associated risk reduction at both a local and global level will positively impact the

productivity of populations and reduce the financial burden imposed by potentially degraded public health, as well as contributing to general wellness and quality of life. This is particularly true for vulnerable parts of the population and for maternal health.

Specific to this project is the direct impact that the actions taken to contain and eliminate the OP stockpiles and resultant spread of contamination from them on already impacted local rural agricultural populations, particularly near to and downstream from the Nubarashen site. The involvement of an active and highly knowledgeable NGO, both historically and as part of the project in this process and in the assessment of impacts and dissemination of information offers an effective mechanism to maximize both the involvement of impacted and vulnerable populations and ensure awareness of both local and global environmental benefits. The particular focus of this NGO further underlines the strong gender dimension of this linkage.

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 rating	Risk mitigation strategy
Institutional risks associated with poor coordination among institutional stakeholders at the national level	Low	While an inherent risk in any initiative involving multiple institutional stakeholders and international organizations, this risk is substantially mitigated by the existence of established coordination mechanisms already operating effectively. The principle one is the Inter-Agency Commission on the Elimination of Obsolete Pesticides. The coordinated approach to GEF's role in the country through the MNP based GEF focal point and development of a GEF-5 programmatic based portfolio also eliminates the potential for overlapping interests between GEF implementing agencies.
Lack of access to information and data.	Low	Following from the above, it is anticipated that the policy level commitment from the major institutional stakeholders working together will minimize any information exchange constraints. A cooperative approach will be fostered and enforced by the MNP GEF Focal Point. This will ensure that information transfer and development of synergies will occur between this project and other on-going projects as well as national institutions
Underestimation of volumes of OP stockpiles and the extent of associated contamination, and there being greater and more critical impact risks that currently defined	Low	In the absence of definitive detailed site assessment studies a risk of underestimating the volumes of materials and resultant costs of environmentally sound management exist. However, the current estimates are felt to be conservative and should provide a reasonable upside basis for estimation at this stage. Definitive numbers will be developed during the PPG.
Achieving required levels of co-financing in a timely manner	Moderate	As noted previously, the mechanisms for involvement of international funding are in place and initiatives underway to address this in a coordinated fashion. This is backstopped by the strong commitment from two principle institutional players, (MNP and MoES), particularly noting a significant investment to date by MoES and the commitment of regular funding through its annual budgets through and beyond the project period. On this basis, the level of co-financing required appears feasible, something that will be developed in detail

Risk	Risk rating	Risk mitigation strategy	
		during the PPG.	
Project delay results in continued and potentially acceleration of contaminant spread from obsolete pesticide burial and storage sites	Low	The high priority attached to addressing the issue and efforts of the government and UNDP to mobilize the financing to address it constitute the main mitigation measure to ensure no further delay. At a practical level the government will continue to ensure these sites are secure and reoccurrence of past practices that had accelerated impacts are being mitigated. This will mitigate environmental risks if implementation encounters delays. Such delays themselves are mitigated by ensuring flexibility to accommodate funding scheduling uncertainties.	
Level of capacity (technical, institutional) is underestimated	Low	As evidenced by the significant amount of work undertaken to provide a comprehensive project baseline and more generally the substantial technical depth available in the country through organizations such as MoES, National Academy of Science, AWHHE and private sector environmental service providers the basic level of capacity in the country is high. The project will serve to strengthen capacity and expertise in targeted areas as well as provide targeted awareness-raising.	
Climatic risks	Low	The principal climatic risk would be weather conditions creating more extreme land sliding at the burial sites. The principal mitigation is the design of the project that prioritizes excavation, packaging and removal of contaminated material at this site.	

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:

As is generally described in previous sections, the principal institutional stakeholders in the project are MNP, MoES, Ministry of Agriculture and Ministry of Health, Ministry of Territorial Administration with additional involvement of the Ministry of Foreign Affairs regarding additional international donor support and National Academy of Science through its overall advisory role to the government and specific technical capacity. Involvement of local self-government authorities at all stages of the project implementation will be necessary. The civil society involvement will provide an extensive network of local stakeholder contacts in all potentially impacted communities. This includes the principle private sector stakeholders in the project, namely the agro-businesses currently having OP storehouses.

B.6. Outline the coordination with other related initiatives:

As outlined above, the project design incorporates a number of elements of coordination with other directly linked initiatives. These include the planned OSCE "feasibility" study work which is anticipated to be complementary to work undertaken during the PPG stage of this project. There are two current GEF-4 MSP projects due to complete in the near future that will also potentially provide useful information and a linkage with both has already been established. These are a regional FAO technical assistance/capacity building project that is providing supporting training and advice to the Ministry of Agriculture, and UNIDO's PCB technical assistance project. As noted above, the latter is particularly important given the potential synergies in addressing the secure storage and ultimately treatment/destruction of POPs wastes, as well as addressing POPs contaminated sites. The UNDP administered GEF Small Grants Programme in Armenia also offers some synergies with the current project including its support for NGO general public awareness programs at the community level. Both of the other currently

anticipated GEF-5 Chemicals Focal Area projects currently contemplated in the programmatic portfolio under discussion with the GEF Secretariat are also identified as warranting close coordination efforts. The proposed NIP Update EA addressing new POPs link to the current project given that lindane is involved and potentially other new stockpiles management could be supported by infrastructure developed under this project. Other international projects that connections will be maintained with are various EU partnership initiatives and NATO technical assistance program targeting scientific capacity building in Armenia.

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

UNDP has been identified by the government as the GEF IA for having a strong country office with long lasting positive record of operations and relations with the government and extensive experience in providing assistance to Armenia in development and introduction of national policies and tools, and in building capacities for improving environmental administration system for last seventeen years. UNDP has been a pioneer in supporting country with implementation of obligations under various Multilateral Environmental Agreements. The agency offers strong, country based, expertise in GEF funded project management in Armenia where it operates a major sustainable development/environmental program. UNDP has also been instrumental in mobilizing co-financing for those projects and encouraging host country for baseline investments.

UNDP Country Office, in particular, assisted the Government in revising national environmental policy and developing national environmental action programme as a major platform for broader policy/program development in relevant sectors. UNDP supported introduction of Integrated Waste Management System in Armenia, having, as outputs, a register of waste disposal sites and handling facilities (including informal) in the country and a National Waste Generation Directory of Armenia. UNDP is a major strategic partner of the Ministry of Emergency Situations in Armenia, which is the major responsible party for elimination of the obsolete POPs pesticides in the country. UNDP invested more than US\$ 1 mln to assist the MoES in establishment of the National Disaster Risk Reduction (DRR) system, particularly, the Disaster Management Center (including Disaster Observatory), National DRR Platform as well as development and approval of the National Strategy of DRR and piloting Local Level Risk Management modalities for over forty (40) local communities across the country.

Globally, UNDP has implemented several NIPs and post NIP projects, including PCB and obsolete POPs pesticides handling and disposal. Additionally, UNDP has been very active in promoting sound management of chemicals in general. To date, GEF funding has been approved for UNDP-supported PCB management activities in Argentina, Brazil, Ghana, Kazakhstan, Kyrgyzstan, Latvia, Mexico, Morocco and Uruguay. Large POPs pesticide disposal programs are technically supported and implemented by UNDP in Honduras, Nicaragua, Vietnam, Georgia, Mauritius, and China. Such programs focus on capacity building to eliminate obsolete POPs pesticides stockpiles and on improvement of management and release containment of POPs. UNDP actively works on the formulation of other obsolete POPs pesticides disposal projects in other countries of the region and globally, including methyl bromide projects funded by the Multilateral Fund, programmes in integrated pest management (IPM) and many more.

Finally, the proposed project will benefit from UNDP's experience in integrated policy development, capacity building and institutional strengthening, as well as in wide involvement of non-governmental organizations and community. This setup will be further supported by specialized technical expertise available at UNDP-MPU/Chemicals through UNDP Regional Office for Europe/CIS and UNDP-HQ.

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

At the request of the GEF political and Operational focal point in Armenia, UNDP Country Office in Armenia along with the Ministry of Nature protection and Ministry of Emergency Situations has been working on identification of the baseline situation and development of the project proposal for the GEF. UNDP-Armenia allocated US\$ 15,000 (in-cash) for stakeholder consultation process and PIF formulation. Moreover, UNDP will additionally contribute US\$ 200,000 (in-cash) to support the project during implementation stage.

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:

Environmentally sustainable development, conservation and sustainable use of natural resources are the priorities - crosscutting and overarching issues - of the government strategic programs and UNDP assistance agenda. One of the UNDAF priorities in Armenia for 2010-2015 is the further enhancement of the national capacities for environmental management, including setup of the system for proper management of chemicals and waste and ensuring investment into introduction of cleaner technologies. Envisaged project objectives, outcomes and outputs, as well as identified outcomes of the GEF Focal area strategic framework are fully in line with targets of UNDP's outcome: "National policies and tools for implementation of and compliance with international environmental agreements are developed and adopted", and as well as with two outputs identified by UNDAF, particularly: (i) national policies and tools for implementation of and compliance with international environmental agreements are developed and adopted; (ii) Innovative policies and practices for environmentally sound, energy efficient technologies and cleaner production developed and implemented.

UNDP Country Office in Armenia is recognized as a leader in the design and implementation of programs that support policy and institutional reforms and commensurate capacity building. Hence, UNDP Armenia is well positioned in terms of their understanding of the chemicals related agenda as well as sectoral knowledge for handling this project. This includes a proven ability to implement complex initiatives that require working in both the national and rural settings, and presence of necessary staff members (seven officers) to provide full programmatic and administrative support as well as backstopping for operations.

In particular, Environmental governance portfolio (EG) analyst (almost fifteen year of experience in programme policy development, environment and energy project design and execution at national and international level with background in industrial engineering and two MSs) will be directly responsible for the overall supervision and monitoring of the project activities, and policy level coordination with national government and other stakeholders. EG portfolio Programme Policy Advisor (two MSs in biology and chemistry, as well as in environment management and policy with fourteen years in environmental governance with the government and international organization) will be appointed to ensure substantive technical coordination of the project activities, as well as to ensure proper planning, quality implementation, reporting, timeliness and effectiveness of the activities carried out.

Administrative backstopping and implementation support on Procurement, Finance and Human Resources will be provided by five staff members – Finance Analyst (a Certified Management Accountant from Institute of Management Accountants, Montvale US with more than seven years experience in finance and management accounting of which five years are at the international level) and Finance associate (19 years of professional experience in Finance and Accounting including 7 year with UNDP), Procurement Associate (with UNDP in Armenia since 1993), HR associate (more than 10 years of experience in UNDP). These four staff members are directly supported and supervised by the Operations Manager (PhD, twelve years of professional experience in development programme and operations management in UNDP). Other necessary logistic and technical support will be provided by Environmental governance portfolio associate on permanent basis.

UNDP country office has also a well developed roster of experts and organisations which have strengths in supporting this project technically at national level. Moreover, technical back-stopping will be also provided by UNDP Regional Centre staff handling chemicals issues, HQ technical staff and international technical experts as required.

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 <u>Operational Focal Point endorsement letter(s)</u> with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Aram Harutyunyan	Minister, GEF Operation Focal Point	MINISTRY OF NATURE PROTECTION	09/20/2011

B. GEF AGENCY(IES) CERTIFICATION

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.

Agency Coordinator , Agency name	Signature	DATE (MM/dd/yy yy)	Project Contact Person	Telepho ne	Email Address
Adriana Dinu, Deputy Executive Coordinator	Ainn	12/30/2011	Dr. Suely Carvalho GEF Principal Technical Advisor for POPs/Ozone UNDP/MPU/Ch emicals	212-906- 6687	suely.carvalho@u ndp.org