



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title:	Removal of technical and economic barriers to initiating the clean-up activities for alpha-HCH, beta-HCH and lindane contaminated sites at OHIS		
Country(ies):	The Former Yugoslav Republic of Macedonia	GEF Project ID: ¹	4385
GEF Agency(ies):	UNIDO (select) (select)	GEF Agency Project ID:	100109 for PPG and 100122 for PIF
Other Executing Partner(s):	Ministry of Environment and Physical Planning (MEPP)	Submission Date: Re-submission Date	09/15/2012 04/11/2013
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration (Months)	60
Name of parent program (if applicable): <ul style="list-style-type: none"> For SFM/REDD+ <input type="checkbox"/> For SGP <input type="checkbox"/> For PPP <input type="checkbox"/> 		Project Agency Fee (\$):	294,500

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
(select) CHEM-1	GEFTF	3,100,000	12,400,000
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
Total Project Cost		3,100,000	12,400,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To establish capacity for and initiate the 7-year site clean-up by removing technical and economic barriers to transfer best available techniques and best environmental practices for remediation of alpha-HCH, beta-HCH and lindane contaminated sites						
Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Investigation and risk assesement of the identified site contaminated by alpha-HCH, beta-HCH and lindane delineating the extent of contamination	TA	Enhanced institutional capacity and knowledge for preliminary and detailed investigation of the identified site	1.1 Relevant legislative documents drafted and introduced; 1.2 "Maximum permissible levels" and "levels of concern" (values that trigger action) for POPs established;	GEFTF	550,000	1,750,000

¹ Project ID number will be assigned by GEFSEC.

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

³ TA includes capacity building, and research and development.

			1.3 Risk-based remediation target levels of POPs set; 1.4 Checklist for preliminary site investigation prepared; 1.5 Generic guidelines for risk assessment developed; 1.6 Guidelines for site-specific risk assessment, problem formulation and exposure studies for the preliminary site investigation report developed; 1.7 Risk characterization report prepared.			
2. Development and implementation of remediation action plan	TA	Remediated POPs contaminated site	2.1 Based on the risk management report of component 1, BAT/BEP for the identified contaminated sites produced; 2.2 Treatment technology screening matrix; 2.3 Contaminated site remediation/ management report prepared.	GEFTF	2,300,000	9,900,000
3. Project Monitoring and Evaluation	TA	Project activities and outputs properly monitored and evaluations completed to achieve the project's expected outcome and objective	3.1 Outcome KPI and output indicators monitored and reported 3.2 Mid-term evaluation completed and reported 3.3 Annual project reporting properly filed 3. 4Terminal evaluation completed and reported	GEFTF	50,000	150000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Subtotal					2,900,000	11,800,000

Project Management Cost (PMC) ⁴		GEFTF	200000	650,000
Total Project Cost			3,100,000	12,450,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	The former Yugoslav Republic of Macedonia	Cash	6,275,000
National Government	The former Yugoslav Republic of Macedonia	In-kind	6,125,000
GEF Agency	UNIDO	Cash	50,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Cofinancing			12,450,000

D. INDICATIVE TRUST FUND 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
(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. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)⁵

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

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)⁶</u>
• No PPG required.	-- 0--	--0--
• (upto) \$50k for projects up to & including \$1 million		
• (upto)\$100k for projects up to & including \$3 million	100,000	9,500
• (upto)\$150k for projects up to & including \$6 million		
• (upto)\$200k for projects up to & including \$10 million		
• (upto)\$300k for projects above \$10 million		

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

Trust Fund	GEF Agency	Focal Area	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b

⁴ To be calculated as percent of subtotal.

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

⁶ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total PPG Amount				0	0	0

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

PART II: PROJECT JUSTIFICATION⁷

A. PROJECT OVERVIEW

A.1. Project Description. Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental cost reasoning and expected contributions from the baseline , the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up

1) Global environmental problems, causes, and barriers

The Organic Chemical Industry of Skopje AD (OHIS) burdened by the historical production of Lindane, an organochlorine pesticide. The Lindane plant was gradually put into operation since 1964 and manufactured Lindane until 1977, when its production ceased due to changing market conditions and environmental burden. Lindane, the gamma isomer of hexachloro-cyclohexane (HCH) was produced by the process of photo-chlorination of benzene. The produced mixture contained also other HCH isomers, i.e. alfa-, beta- and delta-HCH. The gamma isomer was separated by extraction in methanol and by further concentration process whereas the remaining HCH-isomers, forming 86-88% of the batch mixture, were treated as a waste. Approximately 37,000 cubic meters of alfa-, beta- and delta-HCH were ‘temporary’ stockpiled in open dumpsites, consisting of a concrete pool covered with a layer of soil (2008). Lindane and its isomers have been added to the Stockholm Convention as POPs in 2009, and this OHIS site is now recognized as POPs contaminated sites.

The targeted surface is about 10 hectares. The site has 5 sectors related to their past function as follows:

- ☐ Sector A is the former lindane production and storage area;
- ☐ Sector B includes the two HCH dumps, containing also lindane;
- ☐ Sector C is the former monochloroacetic acid production and storage area;
- ☐ Sector D is the former electrolysis plant that is a mercury contaminated site; and
- ☐ Sector E is the former outdoor storage area of fuels/flammables and chemicals.

2) Baseline scenarios and baseline projects

The government of Macedonia has successfully carried out the GEF project on environmentally sound management and final disposal of PCBs. The ESM and final disposal capacity of PCB contaminated equipment has been set up and almost 150 tons of PCB contaminated equipment, which is the committed amount of the project, has been successfully destroyed.

The next POPs issues identified in the National Implementation Plan and now prioritized as newly listed POPs is the Lindane contaminated site at OHIS. As if often the case at state-owned industrial companies in this region, the company is offered for a take-over by private firms through a governmental bidding. However, the condition of the take-over such as guaranteed employment of the existing employees is causing some delays of the ownership transfer of OHIS. The government of Macedonia approved its 5-year budget that has been included as co-financing in Table C. This governmental budget has been leveraged in order to raise required co-financing of this GEF project. With this governmental commitment both in cash and in-kind, the government will secure mainly administrative operations during the project period

⁷ Part II should not be longer than 5 pages.

and also technical operations needed for the clean-up operation of the Lindane contaminated site.

3) Alternative scenarios ,expected outcome and components of the project

This GEF project proposal has leveraged the government's commitment and budget as co-financing to fund its 5-year plan to clean up the OHIS Lindane site.

The first component of the project will assist the former Yugoslav Republic of Macedonia in enhancing legal framework to adequately address reducing and eliminating POPs releases, specifically alpha-HCH, beta-HCH and Lindane releases from contaminated sites of OHIS. The project will also establish capacity for removal of technical and economic barriers to transfer best available techniques and best environmental practices for remediation of alpha-HCH, beta-HCH and Lindane contaminated sites. Furthermore, the project will assist enhancing knowledge and capacity in the country in detailed site investigation and enhancing institutional capacity for site-specific risk assessments that could be disseminated in the country and the region.

This project is first of a kind in the country. The previous assessment done on the HCH contaminated site in OHIS, showed that the country does not have its own capacities to carry out a comprehensive and detailed assessment on contaminated sites. For this reason, the pilot demonstration was conducted by the foreign companies and donors. It is expected that the GEF Project will be an excellent opportunity to involve the national experts and build the institutional capacities (laboratories, trained staff) to be able to apply the know how gained during the project implementation to other hot spots in the country with the same or similar approach.

The second component of the project will help kick off the 5-year clean up plan of OHIS Lindane site. The project will plan to dispose of 13,000 cubic meters out of the total estimated amount of 37,000 cubic meters which is one of the major hotspots in the region. During the pilot project phase that has preceded with the bilateral funding, a combination of thermal desorption technology and final disposal at a salt mine waste disposal storage site was applied . This combination of the technologies could bring down the cost to the approximately 12,000,000 - estimated cost to treat 13,000 cubic meters of the contaminated site. This component is expected to set up equipment and mechanism for the government to continue the clean up operation after the project period of 5 years.

The experience gained through the project would be suitable for replication in other countries of Central and Eastern Europe and beyond. Without this project, the POPs contaminated sites at OHIS would remain untreated, as the governmental co-financing has been leveraged as the matching fund of the GEF fund. Though the size of this hotspot of approximately 37,000 cubic meters has been estimated, the actual dimensions of the contamination have not yet been investigated. The apparent contaminated surface area is about 10 hectares, but there are only scarce data on the contamination level below ground level. Detailed site investigation will provide valuable information on the site, including:

- ☐ the nature and location of contaminants with respect to the soil and groundwater table,
- ☐ potential pathways for contaminant migration,
- ☐ the location of nearby sensitive receptors, and
- ☐ the potential for direct human exposure to the contaminants.

With regard to the mercury site also located at OHIS, whereas this project will not treat the mercury contaminated site, the project will plan to secure the site to avoid further leakage of mercury to the environment and the residential area in the neighborhood.

As of today, the Government of Macedonia does not include the contaminated site of the OHIS facility in a bidding. Once the contaminated site is cleaned up, the site could be sold through a bidding. In this case, the values added by this project will be paid by the private sector which

wins the bidding.

4) Incremental cost justification and expected contribution from co-financing activities

With the GEF funding, Macedonia would initiate, by leveraging its governmental budget, its actions to eliminate the releases of POPs from alpha-HCH, beta-HCH and Lindane contaminated sites and remove the contaminated soil from the OHIS premise that is now situated within the expanded capital city of Skopje. The GEF funding will help secure governmental cash contribution two times as large as the GEF fund in addition to the same size of in-kind co-financing contribution related to the daily operation of the state-owned company, OHIS.

During the project phase, governmental in-kind co-financing will support administrative work at OHIS for the project activities. The cash co-financing contribution will provide technical operations of OHIS including water, electricity, fuel and other energy sources needed for the clean up operation. The GEF fund is expected to set up the equipment and technical routine procedures for the government to continue its clean up operation after the GEF project ends. The governmental co-financing contribution is planned for 5 years including the project period. Further details of the division of the responsibilities will be discussed in the discussion with the co-financing partners during the PPG phase.

5) Global Environmental Benefits

At the global level, the project will contain the POPs waste in an environmentally sound manner and eliminate further emission to the environment. The project will provide a case on how developing and transition economy countries could clean up the POPs contaminated site with the relevant assistance from the international community. The project will also examine whether or not the mercury contaminated site located within the same premise of the company could be contained using minimum required shields for future cleanup. The feasibility and resource required for the mercury containment will be further assessed during the PPG phase. The project will also fully engage instrument set by the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal when transporting the contaminated site to the outside of the country.

6) Innovativeness, sustainability, and potential for scaling up

The selection of the final disposal technology will be carried out following the due diligence process described in the UNIDO's procurement rules and procedures when it comes to the implementation phase of this project. However, during the preceding pilot phase, a combination of thermal desorption and final disposal at a salt mine waste disposal site was demonstrated. This combination has been proven as a more reasonable and affordable option than other potential technologies to remove and clean up soil contaminated by toxic wastes containing POPs. The thermal desorption technology helps reduce the volume of the contaminated soil by concentrating the contaminants and creating uniform soil particles that are more easily transferrable and disposable in a salt mine disposal site. Salt mine disposal will not destroy the POPs but permanently stored in a stable and monitored underground waste disposal site. Some salt mine disposal sites are so stable that they also receive radioactive wastes. The location of all the waste is recorded and when proper technologies for final disposal and funding are available, the waste could be retrieved and destroyed, if needed. This disposal approach is unique and the project would be able to demonstrate how to clean up POPs and mercury contaminated sites that exist in the region. This affordable approach could be replicable if successfully implemented.

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

Key stakeholders of this project include the state-owned OHIS, Ministry of Environment and Physical Planning, Ministry of Economy, as well as Ministry of Finance. OHIS is the direct beneficiary where the contaminated sites exist in its premise. Ministry of Environment and Physical Planning will be

responsible for coordinating the project remediation activities. Ministry of Economy will be responsible for the involvement and management of OHIS in this project. Ministry of Finance approves and disburses the governmental co-financing in cash during and after the project phase.

The project will also involve the Institute of Public Health to ensure the project intervention will be properly monitored for occupational health and safety of OHIS workers involved in the project activities as well as the exposure of residential communities in the neighborhood to the air-borne particles caused by the project activities.

The civil societies identified so far include Macedonian Ecological Society, Macedonian Chamber of Commerce, and the Center for Climate Change. During the PPG phase, the identification of experts and their roles and contribution will be further discussed. The involvement of these civil society organizations will help the local community and vulnerable groups further understand the importance of the project intervention and how the project will clean up the contaminated site. A particular attention should be paid to the environmental pollution risk caused by the project intervention as well as the transportation risk of the processed contaminated soil to a final disposal site. A gender mainstreaming considerations and activities will be also taken into account in designing the project activities through the NGO's assistance.

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

RISKS	LEVEL	RISK MITIGATION MEASURES.
1. Due to improper communication among different government departments the enforcement mechanisms are not effective	Low	Ensure laws and regulations are complete, reasonable, sound, enforceable and supported with institutional capacity building and training
2. Level of capacity at institutional or infrastructural level is underestimated	Low	The institutional capacity building will be considered as a priority at the earlier stages of the project including awareness of the top management of the company and government. Proper training will be provided.
3. Human and environmental health risks due to handling of obsolete alpha-HCH, beta-HCH and lindane wastes and pesticides during the project phase	Low	Waste will be handled only by authorized and trained personnel and emergency plans will be prepared in advance. Regular monitoring will enable prompt corrective response. The civil societies will be informed of the project status and they are expected to help the local community understand the progress of the activities.
4. Due to insufficient political will, administrative support and financial commitment of the government to the project delays may occur in completing and achieving the outlined tasks in a timely manner	Moderate	High-level consultations, as well as civil society and NGOs could play a major role in regaining political commitment. The signed endorsement letter confirms the commitment of the Government. At PPG phase fund raising activities will minimize this risk.
5. (Climate risk) There may be increased flood risk of the river running close to the Lindane and Mercury contaminated site at OHIS. A flood in this area would contaminate the residential area next to the OHIS site.	Low	Flood risk assessment that has to be done as part of Macedonia's EU integration efforts may be applied to this area. If the flood risk is indeed higher, the project will evaluate the cost-effectiveness of a project activity to secure the contaminated site from a possible flood occurrence.

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

There are two GEF funded projects in Macedonia in the area of chemicals management. The PCB project (GEF ID: 2875) has been almost complete and the project goal of 150 tons of PCB contaminated equipment will be reached by the non-combustion PCB treatment process. Another project to review and update NIP update project (GEF ID: 4783) has been initiated and the inventory of contaminated site will include the updated information of this OHIS site. The governmental activities related to the OHIS management and operation will be further discussed and described in the full project document during the PPG Phase.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

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

The former Yugoslav Republic of Macedonia is eligible for GEF financing in line with Article 9(a) of the GEF Instrument, as the former Yugoslav Republic of Macedonia ratified the Stockholm Convention on 27 May 2004. The GEF project “Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan for The Former Yugoslav Republic of Macedonia” was successfully completed. The country submitted its NIPs to the Stockholm Convention Secretariat on 9 February 2005.

The Project has been developed within the framework of the National Implementation Plan (NIP) for the reduction and elimination of the POPs in the Former Yugoslav Republic of Macedonia prepared by the Ministry of Environment and Physical Planning with funding from the GEF and with the assistance of the UNIDO. The NIP, implemented with the coordination of the National POPs Unit, was aimed at creating a first baseline inventory of the POPs contaminated sites in and at detailing the actions foreseen for the implementation of the obligations of the Stockholm Convention, signed by the Former Yugoslav Republic of Macedonia on 23 May 2001, and further ratified on 27 May 2004.

Among the thirteen major priority areas identified in the NIP, becoming later on the basis for the proposed actions, the following concern was highlighted: “Control of HCHs in the FYR of Macedonia: large quantities of technical waste (technical mixture of HCH isomers) are stored which need to be solved in a proper manner. Although HCH is not listed in the Stockholm Convention, it is set as the 13th priority in order to find a prompt solution for this waste)”.

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

The proposed project is responding to the GEF-5 Strategy for Chemicals approved in the November 2010 Council meeting. The GEF-5 strategy follows the recommendation of COP which at its fourth meeting in May 2009 reaffirmed the central guiding principle that the GEF should “take into account the priorities identified by Parties in their implementation plans transmitted to the Conference of the Parties”. The project is in consistency with CHEM-1 of the GEF-5 Strategy “Phase out POPs and reduce POPs releases”, 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”.

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

UNIDO plays a leading role in the implementation of the Stockholm Convention on POPs, assisting developing countries and transition economies to meet their obligations to the Convention. UNIDO as part of its thematic priority on environmental management, recognizes the relationship between poverty and the potential exposure to toxic substances, pollutants and wastes and that eliminating the health and environmental impacts of POPs leads to a sustained and more equitable economic development. UNIDO

has carried out projects to establish the ESM of POPs as well as obsolete pesticide which is the UNIDO's comparative advantage.

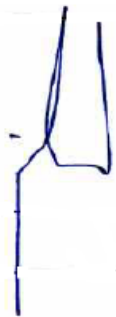

UNIDO is fully supported by the relevant Ministries and its project office in Macedonia established for the on-going PCB and NIP update projects and thus, guarantees the successful implementation of the project.

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

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr. Nexhati Jakupi	GEF Political Focal Point	MINISTRY OF ENVIRONMENT AND PHYSICAL PLANNING	09/13/2010
Ms. Daniela Rendevska	GEF Operational Focal Point	MINISTRY OF ENVIRONMENT AND PHYSICAL PLANNING	09/13/2010

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/yyyy)	Project Contact Person	Telephone	Email Address
Mr. Philippe Scholtès Officer-in-Charge Programme Development and Technical Cooperation Division – PTC UNIDO GEF Focal Point		04/11/2013	Fukuya IINO 	+43-1-26026-5218	f.iino@unido.org