REQUEST FOR MSP APPROVAL (1-STEP PROCEDURE)

TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries		
Country(ies):	Indonesia, Philippines	GEF Project ID:[1]	
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5364
Other Executing Partner(s):	Blacksmith Institute	Submission Date:	2014-02-06
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration (Months)	24
Name of parent program (if applicable):		Project Agency Fee ($):	79,610

A. FOCAL AREA STRATEGY FRAMEWORK[2]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Co-financing ($)
(select) CHEM-3	To promote the sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment	Contribute to the overall objective of the SAICM of achieving sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment	GEFTF	838,000	2,471,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
		Total Project Cost		838,000	2,471,000

B. PROJECT FRAMEWORK

Project Objectives: Promote the environmentally sound management (ESM) of two sources of potential lead poisoning in the selected countries in Asia, lead in paint and used lead acid batteries (ULABs), in ways that minimize significant adverse effects on human health and the environment

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount ($)	Cofinancing ($)
Component A. Enable local government agencies, national stakeholders and the international community to better understand the exposure pathways and the scope of contamination from lead due to lead in paint and unsafe ULAB recycling, their impacts on human health, and feasible solutions to mitigate the	TA	Outcome A.1 Scope of pollution and human health exposure risks due to current practices in ULAB recycling/ smelting evaluated and better understood by government agencies and other stakeholders	A.1.1 Data and reports on scope and impacts of ULAB recycling globally and in selected project countries available. A.1.2. List of priority ULAB sites for intervention in	GEFTF	222,000	107,000

[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 filling up the table in item A.

exposure risks.		Outcome A.2 Scope of environmental health risk from lead in paint in residential homes is assessed in one urban area in the selected countries, as a model for Asia. Outcome A.3 ULAB supply chain assessment is completed for the Greater Jakarta region of Indonesia, as a model for Asia, and enhances government, industry and other stakeholder understanding of the economic/livelihood implications, challenges and opportunities for safe management of ULABS in the region.	each of the selected countries prepared. A.2.1 Environmental health risk from lead in paint in residential homes assessed in one urban area in the selected countries. A.2.2 At least one scientific paper and report produced on environmental health risks from lead in paint in an urban residential area in Asia. A.3.1 Report on the dynamics of the supply chain for ULABs available for the Greater Jakarta region prepared and disseminated.			

Component B: Develop recommendations for action to phase out lead in paint and unsafe ULAB recycling practices, with a focus on the informal sector.	TA	Outcome B.1 Recommendations regarding feasible steps and solutions to mitigate risks from lead contamination and to phase out lead in paint and unsafe ULAB recovery, recycling and smelting practices drafted in each project country.	B.1.1 Multistakeholder working groups established with representatives from government, industry and other relevant stakeholders. B.1.2 Two reports (one for ULABs and one for lead in paint) with recommendations for phasing out lead in paint and unsafe ULAB recovery, recycling and smelting practices drafted for each project country. B.1.3 Report presenting recommendations for improvements to Basel Convention Technical Guidelines for ULABs drafted and take into account dynamics of supply chain and livelihoods issues. B.1.4 Action plans to phase out the unsafe recycling of ULABs and lead in paint are drafted for each project country and include priority actions, a timeframe for implementation, and responsible parties. B.1.5 At least one draft national policy/strategy/regulation or plan influenced by the project to include a reference to lead.	GEFTF	137,000	714,000

Component C. Build educational and technical capacity of government agencies and national stakeholders in the selected countries to take concrete action to minimize the adverse effects of lead on human health and the environment from lead in paint and unsafe ULAB recycling, including remediation.	TA	Outcome C.1 Local capacity built in the selected project countries to implement recommended actions to phase out lead in paint and unsafe ULAB recycling/ smelting practices.	C.1.1. More than 60 national individuals from government, industry and other stakeholders, including at least 15 government officials and industry representatives per country, trained in the use and application of tools for environmentlally sound management, technical guidance and best practices related to lead. C.1.2 Capacity of project country government inspectorates built to conduct ULAB smelter inspections and assess compliance with existing regulations. C.1.3 Capacity of project country environmental protection agencies and private sector entities built by implementing recommended actions, such as undertaking pilot lead remediation projects, and on-the-job learning. C.1.4 At least one pilot lead remediation project conducted in either project country, and measurable reduction in health exposures to lead at the remediation site. C.1.5 Lists of companies interested in improving their practices and mitigating risks from lead contamination, incorporating best practices for lead into their company strategies, and implementing best practices for ULABs and phasing out use of lead in paint.	GEFTF	287,000	1,496,000

Component D. Monitoring, extracting and sharing lessons learned, adaptive feedback, and evaluation	TA	Outcome D.1. Models from the ULAB supply chain and urban health risk assessment from lead in paint, lessons learned and best practices for phasing out lead in paint and unsafe ULAB recycling/smelting practices are shared with governments, industry and relevant stakeholders in each selected country, as well as regionally.	D.1.1 At least two national workshops per country per year held. D.1.2 One regional workshop held. D.1.3 Project Mid-Term and Final Evaluations conducted. D.1.4 Lessons learned and best practices are accumulated, summarized and disseminated at national, regional and international level	GEFTF	117,000	134,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
			Subtotal		763,000	2,451,000
			Project Management Cost[3]	(select)	75,000	20,000
			Total Project Cost		838,000	2,471,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
Private Sector	HSBC	Investment	277,000
Other Multilateral Agency (ies)	African Development Bank	Cash	1,500,000
Other Multilateral Agency (ies)	World Bank	Cash	38,000
Bilateral Aid Agency (ies)	European Commission	Cash	27,000
CSO	International Lead Management Center	In-kind	84,000
National Government	Government of Indonesia	In-kind	250,000
National Government	Government of the Philippines	In-kind	295,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Cofinancing			2,471,000

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

[3] PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

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	Philippines	400,000	38,000	438,000
UNDP	GEFTF	Persistent Organic Pollutants	Indonesia	374,000	35,530	409,530
UNDP	GEFTF	Persistent Organic Pollutants	Regional M&E Lessons-Learned	64,000	6,080	70,080
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				838,000	79,610	917,610

[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.

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
International Consultants	248,900	201,372	450,272
National/Local Consultants	168,000	301,953	469,953

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

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.

Context and Global Significance

This project seeks to promote the environmentally sound management of two sources of potential lead poisoning, lead in paint and used lead acid batteries (ULABs), in ways that minimize significant adverse effects on human health and the environment. The project will take place in Indonesia and the Philippines, and the duration is two (2) years.

Lead (Pb) is a critical ingredient in industrial enterprises and consumer products throughout the world. If handled improperly, lead can be one of the most severe neurotoxins to humans, especially children.

The health effects of lead poisoning, and the devastating neurological damage and mental disabilities children can suffer from lead poisoning have been well documented (Landrigan & Baker 1981; Woodruff, et al 2001). Lead contamination is commonly caused by inhalation of lead dust, which enters the respiratory system and the bloodstream. Lead dust is also brought into homes on clothing or shoes, and can build up on bedding, cooking utensils and food. Lead can also migrate to groundwater and surface water supplies used for bathing, drinking and cooking.

High-income countries have long worked with the private sector to ensure the environmentally sound management of lead and lead products, such as used lead acid batteries (ULABs). The worldwide campaign to remove lead from gasoline, coordinated by the UN Environment Program (UNEP) and many others, was effectively implemented in nearly every country around the world, saving hundreds of millions of children from developmental disabilities and other health problems.

Lead continues to be a threat to local populations in the proposed project countries and globally because the introduction of procedures, such as the Basel Convention Technical Guidelines for the Environmentally Sound Management (ESM) of Lead Wastes and processes to control lead emissions to the atmosphere and discharges to the environment have lagged behind other public health initiatives.

According to data from the Toxic Sites Identification Program (TSIP)[4], a project run by Blacksmith Institute in collaboration with UN Industrial Development Program (UNIDO) and funded by the World Bank, Asian Development Bank and the European Commission, lead is the most common pollutant in terms of risk to human health.

A majority of lead exposures recorded in the TSIP database come from toxic hotspots caused by the processing and recycling of lead, including primary smelters and formal and informal recycling of used lead acid batteries (ULABs), but there are other sources of exposure, including lead in paint.

Exposure to lead in paint has long been a cause of known cases of childhood lead poisoning. Dust created by normal wear of lead paint (especially around windows and doors) can create an

[4] TSIP database, 2013. Blacksmith Institute.

invisible film of dust in the home. Children, particularly younger children, may also ingest lead paint chips. Lead from exterior paint can flake off or leach into the soil and dust around the outside of a home, contaminating children's play areas or enabling it to spread throughout a community or to be tracked into homes on shoes and clothing. Renovation or demolition activities, as well as regular cleaning can increase exposure risk by threat of dispersing lead dust particles in the air and over household surfaces. Lead paint is also used in schools, public and commercial buildings, as well as structures such as bridges.

Lead paint was the dominant form of paint for many decades, and a significant percentage of homes in certain countries still contain lead paint on some surfaces. Many countries have taken strong initiatives to phase out or ban lead in paint. For example, the United States has banned use of paint containing more the 0.009 (or 90 ppm) lead for toys, furniture, and use on interior and exterior walls in 2009, though efforts to reduce its use began after WWII. The European Union banned the general sale of leaded paint in 1989. Other countries, such as South Africa and Thailand have taken action to restrict use of lead in paint. However, leaded paint is still commonly available in many Asian countries, including in Philippines, Viet Nam, Thailand (where standards are voluntary), China, India and others.

Of the six million tons of lead used annually worldwide, roughly three-quarters goes into the production of lead-acid batteries. Lead acid batteries are used in automobiles, industry and for a wide range of other applications. Much of this existing demand for lead is met through the recycling of secondary material, and in particular from lead recovered from used lead acid batteries (ULABs).

ULABs are comprised of 53% lead, which can be extracted once a battery has lost its charge, and recycled. Because recycled lead is a valuable commodity, ULAB recycling has become a viable, profitable business and an important source of income for many people.

ULAB recycling is on the rise partly due to the increase in lead prices over the last 15 years, high unemployment rates and increased car ownership. Southeast Asian countries in particular have been experiencing rapid growth, and a rising demand for lead, most of which is met via recycling of ULABs.

Recycling often takes place in backyards or garages, often by women, without proper ventilation, safety equipment or precautions. Batteries are typically broken open by hand, and the battery acid poured onto the ground or nearest water source. The acid then either migrates through the soil, volatizes, remains in the topsoil, or contaminates the ground water or other water sources, such as rivers and lakes. Additionally, lead fumes, particulates and vapors from crude melting and smelting operations emit more dust, which settles nearby. Melting/smelting of lead often takes place near children in open, public areas or homes. Tests of lead levels in soil at known recycling areas far surpass recommended international safely standards.

In a recent study by Caravanos et al. on the pediatric burden of disease from lead exposures at 82 hazardous waste sites in seven Asian countries, including Indonesia and the Philippines, at least 189,725 children under age 4 are exposed to sufficiently high levels of lead to produce decrement in intelligence quotient (IQ) with a minimum of 4.94 IQ points to a maximum of 14.96 IQ points lost. Lead exposures can adversely affect communities in various ways, including increasing the number of children with mental disabilities, decreasing the productivity and earning potential of affected children, increasing demand for educational and other government support, and increasing health care costs.[5]

By assisting the selected project countries to take action to reduce lead contamination, the proposed project will contribute to mitigating the negative impacts caused by lead exposures, especially on children. The dissemination of project results among the international community

[5] Caravanos, et al. The burden of disease from pediatric lead exposure at hazardous wastes sites in seven Asian countries. Environmental Research. 2012.

will help non-project countries to better understand the scope of contamination from lead due to lead in paint and unsafe ULAB recycling in their respective countries and determine impacts on human health. Furthermore project outcomes will allow project and non-project countries to identify feasible solutions to mitigate exposure and risks of their populations and undertake tangible and cost-effective actions to phase out lead in paint and unsafe ULAB recycling practices.

Threats, Causes and Barriers for Environmentally Sound Management of Lead in Paint and ULABs

The threats, fundamental causes and barriers to the sound management of lead in paint and ULABs in Indonesia and the Philippines are stated below.

a. **Lack of information and awareness on size and scope of lead contamination and health risks.** The extent of environmental contamination and associated human health risks posed by lead from lead in paint and unsafe ULAB recycling and smelting in Indonesia and the Philippines is not well understood. Public education programs about lead in paint and exposure risks are not widespread.
b. **Lack of financial resources, technical expertise and capacity.** Signatory countries of the Basel Convention often lack sufficient resources and/or technical expertise to fulfill the Basel Convention's requirements and control the importation and recycling of ULABs. Financial and technical capacity is weak to enforce existing regulations and monitor formal paint and ULAB smelting/recycling industry for compliance.
c. **Informal livelihood implications are unaddressed.** Formalization of the informal/backyard ULAB recycling/smelting industry and remediation of legacy ULAB recycling sites provide little incentive for adoption and implementation by recyclers other than avoided health risks. A viable solution for foregone income is needed for the informal sector. Shutting down illegal operations can often cause activities to resurface in another area, causing new hotspots of contamination. Basel Technical Guidelines for Sound Management of ULABs does not address livelihood implications. Appropriate systems or methods of alternate income (such as collection centers that export to safe processing facilities, and/or a deposit incentive system) need to be designed, and field-tested to offset lost income and find a sustainable, environmentally sound management system for the long-term.
d. **Substandard operation and limited capacity of formal/licensed smelters.** Many formal, legal ULAB smelters operate with little or no pollution controls. Limited capacity to process ULABs results in subcontracting to informal/backyard smelters. Smelter owners lack knowledge about and/or resources to implement technologies to upgrade operations to comply with set standards. Their operation is often not monitored by responsible government agencies. On-going pollution must be addressed before clean up can begin.

Industry is often inadequately engaged. The paint and lead industries must be aware of and understand the importance of the life cycle of their products. As important contributors to the local/national economy, they must be engaged as key stakeholders and involved in identifying and implementing solutions. Access to technical and financial resources to upgrade facilities is critical. The International Lead Organization, International Lead Management Center, and national/international lead battery associations can play a key role in engaging local/national industries and assist such industries to adopt safer production processes and produce less harmful products and waste.

The project will address the above threats, causes and barriers to sound management of lead from two sources of potential lead poisoning, lead in paint and used lead acid batteries

(ULABs) through the following components:

Component	Barrier
Enable local government agencies, national stakeholders and the international community to better understand the exposure pathways and the scope of contamination from lead due to lead in paint and unsafe ULAB recycling, their impacts on human health, and feasible solutions to mitigate the exposure risks	Lack of information and awareness Lack of technical expertise and capacity
Develop recommendations for action to phase out lead in paint and unsafe ULAB recycling practices, with a focus on the informal sector	Inadequate industry engagement Informal recycling practices and livelihood implications
Build educational and technical capacity of government agencies and national stakeholders in the selected countries to take concrete action to minimize the adverse effects of lead on human health and the environment from lead in paint and unsafe ULAB recycling, including remediation	Lack of technical expertise and capacity Inadequate industry engagement Informal recycling practices and livelihood implications

Overcoming these barriers will enable Indonesia and the Philippines to take concrete action to minimize the adverse effects of lead on human health and the environment from lead in paint and unsafe ULAB recycling/smelting practices.

Baseline Analysis

According to Blacksmith Institute's on-going Toxic Sites Identification Program, unsafe ULAB recycling and smelting is estimated to occur in nearly every large urban area, and likely affects more than nine million people globally.

The program has identified more than 100 ULAB smelting recycling sites to date across South/Southeast Asia, sub-Saharan Africa and Latin America. All of these sites exhibit lead levels that exceed national regulations and recognized international standards. Currently, the three countries with the most ULAB sites identified in the database are Indonesia, the Philippines and India, although ULAB sites are found in many countries in Asia. To date, 21 contaminated ULAB sites have been assessed in Indonesia and 16 in the Philippines under the Toxic Sites Identification Program. Roughly two million people are estimated to be at risk from lead pollution at these sites alone - a number that is expected to rise substantially as new sites are evaluated.

There is very little data on human health exposures related to lead in paint in the selected countries, and no contaminated sites linked to lead in paint have been recorded in the Toxic Sites Identification Program database for these countries.

In Jakarta, Indonesia and the city's surrounding urban areas, a recent study conducted by the local NGO, the Indonesian Lead Information Centre (KPBB), identified more than 70 active and legacy lead smelters with insufficient or non-existent safety standards. Of 34 smelters visited, a majority had soil lead concentrations above World Health Organization (WHO) standards in the nearby vicinity.[6] Average blood lead levels in local children at those sites were

[6] Half Yearly Progress Report to SAICM Quick Start Program. Project Title: Multisectoral Group Action Plan for Integrated Hazardous Waste Management. Lead Waste Recycling and Chemical Management. September 2012.

also well above the accepted international standard of 10 μg/dl. In 2001, the Ministry of Environment, US EPA and the United States Center for Disease Control (US CDC) found 35% of tested school children in Jakarta had lead concentrations in their blood above accepted standards. A 2007 study in four different cities found similar results (32% in Bandung, 53% in Makassar, 40% in Palembang and 18% in Surabaya).

A study in 2000 in Manila, the Philippines, found significantly elevated blood lead levels among workers exposed to lead from battery repair and recycling workshops, as well as high levels in children located in the vicinity of those shops.[7] A formed lead-acid battery manufacturing and ULAB recycling plan in Meycauayan City, located in the Metro Manila area, was identified as a significant source of lead contamination and health exposure risk for local communities, many of whom were informal settlers. The Government of the Philippines began work to clean up the formal ULAB industry in the late 1990's. As of 2000, the largest ULAB recycling plant, Philippine Recyclers, Inc, has been in compliance with environmental, safety and occupational health legislation, but significant challenges are still presented by the unregulated informal recycling sector.

A 2007 study of elevated blood lead levels of children living in the rural Visayas region of the Philippines cited multiple potential sources of exposure to lead, including lead in paint.[8]

The proposed project will build upon previous and on-going Blacksmith Institute supported activities on lead contamination in the selected project countries:

- *Indonesia:* An ongoing project to take preliminary action to improve the sound management of lead, and conduct a pilot remediation. Partners: Ministry of Environment, KPBB and Jakarta battery industry.
- *Philippines:* Previous efforts with the battery industry and the Department of Natural Resources to raise awareness about the dangers of lead, conduct children's health assessments and remove and dispose of contaminated battery casings used as flooring and furniture in contaminated homes, as well as design a remediation plan for a lead-contaminated land, including a soccer field in Meycauayan City.

Project objective

The project objective is to promote the environmentally sound management of two sources of potential lead poisoning, lead in paint and used lead acid batteries, in ways that minimize significant adverse effects on human health and the environment in Indonesia and the Philippines.

Project lead

33. The project will be implemented by the UNDP (under the UNDP/GEF Chemicals and Waste Focal Area), and executed through the UNDP NGO execution modality by the Blacksmith Institute.

Project components, outcomes and outputs

This project has four components, as indicated below, with expected outcomes and outputs for each:

Component A. Enable local government agencies, national stakeholders and the international community to better understand the exposure pathways and the scope of

[7] Suplido ML, Ong CN. Lead exposure among small-scale battery recyclers, automobile radiator mechanics, and their children in Manila, the Philippines. Environ Res. 2000 Mar;82(3):231-8. http://www.ncbi.nlm.nih.gov/pubmed/10702330

[8] Riddell TJ, Solon O, Quimbo SA, Tan CM, Butrick E, Peabody JW. Elevated blood-lead levels among children living in the rural Philippines. Bull World Health Organ. 2007 Sep;85(9):674-80. http://www.ncbi.nlm.nih.gov/pubmed/18026623

contamination from lead due to lead in paint and unsafe ULAB recycling, their impacts on human health, and feasible solutions to mitigate the exposure risks.
Budget: 337,000 US$; GEF: 220,000 US$. Cofinancing: 117,000 US$.

Outcome A.1 Scope of pollution and human health exposure risks due to current unsafe practices in ULAB recycling/ smelting evaluated and better understood by government agencies and other stakeholders.

Outputs:

A.1.1 Data and reports on scope and impacts of ULAB recycling globally and in selected project countries available.

A.1.2. List of priority ULAB sites for intervention in each of the selected countries prepared.

Under Component A, the project will provide technical expertise and support for identifying and assessing environmental and health impacts associated with lead contamination from unsound ULAB recovery, recycling and smelting in Asia, with a particular focus on the project countries. This will include identifying and assessing extent of contamination due to the formal or informal ULAB industry and number of people affected.

To do this, the project will use Blacksmith Institute's existing *Initial Site Screening,* a protocol that has been implemented in nearly 50 countries for identification and assessment of contaminated sites. The ISS is a rapid evaluation that identifies major elements of a contaminated site, including estimated population at risk, key pollutant information, human exposure pathway data and sampling data. National investigators in the project countries have already been trained in this protocol. Under this project, the investigators will specifically target lead contaminated sites associated with ULABs. Where active formal smelters are found, the ILMC's Benchmarking Assessment Tool[9] will be used to assess smelter compliance with Basel Convention Technical Guidelines for ESM of lead from ULABs. The Benchmarking Assessment Tool also assesses the recovery and recycling procedures and processes which are being used by well-established ULAB industries and identifies key areas of ULAB recovery and recycling operations that should be further improved.

Results will be shared with government agencies in each country, as well as local health communities, and the lead industry to raise awareness of these stakeholders about the risks of lead exposure in each country, as well as exposure pathways, scope of contamination, and negative impacts and implications for sustainable growth, economic growth, poverty reduction and environmental health.

Outcome A. 2 Scope of environmental health risk from lead in paint in residential homes is assessed in one urban area in the selected countries, as a model for Asia.

Outputs:

A.2.1. Environmental health risk from lead in paint in residential homes assessed in one urban area in the selected countries.

A.2.2. At least one scientific paper and report produced on environmental health risks from lead in paint in an urban residential area in Asia.

Building on previous GAELP efforts, and best practices from the USA and Europe, the scope of environmental health risk from lead in paint in residential homes will assessed in one urban area in the selected countries (anticipated city is Manila, the Philippines), as a model for Asia. It will be used to engage government, industry and other stakeholders in the project countries

[9] International Lead Management Centre (ILMC) Benchmarking Assessment Tool (BAT) http://www.ldaint.org/news/ila-news/2013-04-26/international-experts-work-with-chinese-lead-industry-to-promote-good-practice-at-manufacturing-plants

and enhances their awareness and understanding about the health risks from lead in paint and the need to phase out the use of lead in paint and raise awareness about associated health risks.

The assessment will include identifying target housing, taking lead contamination measurements, recording housing conditions and family size/age data, and preparing a model to calculate health burden from lead contamination. Once completed, a summary report and scientific paper will be compiled.
The urban residential environmental health risk assessment of lead in paint will be the first in Asia and serve as a model to assist countries to better understand the scope and extent of human health impact posed by lead in paint. Results will be showcased and shared nationally and among the selected project countries, with a variety of stakeholders, such as government institutions, industry, health practitioners, etc. in order to raise awareness about the health risks posed by lead in paint and the need to phase out the use of lead in paint. Results will also be shared regionally and internationally at appropriate conferences and other relevant events.

Outcome A.3. ULAB supply chain assessment is completed for the Greater Jakarta region of Indonesia, as a model for Asia, and enhances government, industry and other stakeholder understanding of the economic/livelihood implications, challenges and opportunities for safe management of ULABs in the region.

Outputs:

A.3.1. Report on the dynamics of the supply chain for ULABs available for the Greater Jakarta region prepared and disseminated.

This activity will conduct a ULAB supply chain study in the Greater Jakarta area to better understand economic implications, challenges and opportunities for safe management of lead throughout its lifecycle. Jakarta, Indonesia is chosen because a significant number of previous surveys to identify contaminated sites associated with ULAB smelters (formal and informal) have already been undertaken there. Because this information already exists and the dynamics of the supply chains in Asia are likely to be similar, the industry in the Greater Jakarta area can act as a good model for other Asian countries and the region.
The report that will present the findings of this supply chain study is key to understanding the economic forces involved in the ULAB recycling sector, including capacity of existing formal smelters to absorb domestic supply of ULABs. It will also explore market-based solutions to improve the overall management and recycling of ULABs, such as those implemented in the US, Europe, and Russia, which include battery deposit and collection systems (e.g. a "tax" is included on the battery that is refundable when taken to a government approved smelter). Once completed, a report and its findings will be presented to the government, industry and other relevant stakeholders in each of the project countries and made available electronically on relevant websites for wide dissemination.

Component B. **Develop recommendations for action to phase out lead in paint and unsafe ULAB recycling practices, with a focus on the informal sector.**
Budget: 891,000 US$; GEF: 137,000 US$; Cofinancing: 754,000 US$.

Outcome B.1. Recommendations regarding feasible steps and solutions to mitigate risks from lead contamination and to phase out lead in paint and unsafe ULAB recovery, recycling and smelting practices drafted in each project country.

Outputs:

B. 1.1. Multistakeholder working groups established with representatives from government, industry and other relevant stakeholders.
B.1.2 Two reports (one for ULABs and one for lead in paint) with recommendations

for phasing out lead in paint and unsafe ULAB recovery, recycling and smelting practices drafted for each project country.

B.1.3 Report presenting recommendations for improvements to Basel Convention Technical Guidelines for ULABs drafted and take into account dynamics of supply chain and livelihoods issues.

B.1.4 Action plans to phase out the unsafe recycling of ULABs and lead in paint are drafted for each project country and include priority actions, a timeframe for implementation, and responsible parties.

B.1.5 At least one draft national policy/strategy/regulation or plan influenced by the project to include a reference to lead.

The project will establish a multi-stakeholder working group in each country with representation of relevant government agencies, the health community, paint and battery industry and other stakeholders. Using data and reports from the above two Component A activities, the project will raise awareness of the working group regarding the scope, impacts and risks of lead exposure, and the benefits of practical interventions to mitigate exposure risk. The multi-stakeholder group will be tasked with drafting recommended actions to phase out lead in paint and unsafe ULAB recovery, recycling and smelting practices, particularly related to informal recycling practices. The multistakeholder group will identify and recommend environmentally sound actions and timelines for taking action, such as: improving/drafting policies or plans to phase out lead in paint, improving formal and informal smelter practices so they are in compliance with occupational health and emissions standards; developing economic incentives for transitioning from the informal recycling of ULABs to the formal sector without damaging livelihood opportunities; and building capacity of government agencies to monitor the formal industry and exposed populations, and prioritize sites for remediation, among other possible actions. Country-specific recommendations for feasible practical steps and solutions will be drafted in collaboration with government, industry and other stakeholders and shared nationally as well as regionally.

Component C. Build educational and technical capacity of government agencies and national stakeholders in the selected countries to take concrete action to minimize the adverse effects of lead on human health and the environment from lead in paint and unsafe ULAB recycling, including remediation.
Budget: 1,782,000 US$; GEF: $282,000 US$; Cofinancing: 1,500,000 US$.

Outcome C.1. Local capacity built in the selected project countries to implement recommended actions to phase out lead in paint and unsafe ULAB recycling/ smelting practices.

Outputs:

C.1.1 More than 60 national individuals from government, industry and other stakeholders, including at least 15 government officials and industry representatives per country, trained in the use and application of tools for environmentlally sound management, technical guidance and best practices related to lead, .

C.1.2 Capacity of project country government inspectorates built to conduct ULAB smelter inspections and assess compliance with existing regulations.

C.1.3. Capacity of project country environmental protection agencies and private sector entities built by implementing recommended actions, such as undertaking pilot lead remediation projects, and on-the-job learning.

C.1.4 At least one pilot lead remediation project conducted in either project country, and measurable reduction in health exposures to lead at the remediation site.

C.1.5 Lists of companies interested in improving their practices and mitigating risks from lead contamination, incorporating best practices for lead into their

company strategies, and implementing best practices for ULABs and phasing out use of lead in paint.

The project will provide technical assistance, training, and capacity building to governments and industries to take necessary action to implement the above recommended actions to phase out lead in paint and unsound ULAB recycling/smelting practices. Capacity building is envisioned through various training options, including formal workshops, remote learning webinars/online courses, and a learning by doing approach, including on-the job training.

Specifically for ULABs, this will include formal and on-the-job training to build capacity to assess smelter compliance with existing regulations on lead emissions engaging both the formal and informal ULAB recycling sector, establish collaboration between the public and private sector, and provide technical expertise to the formal sector to assist them to minimize lead emissions. The project will make use of existing tools and guidance such as the ILMC Benchmarking Assessment Tool, and the UNEP Basel Convention Technical Guidelines for the Sound Management of Lead. Capacity will be build via workshops, remote learning webinars or online courses.

Improving operations of ULAB smelters, both formal and informal, including backyard subsistence-level recyclers, is one of the overall objectives of this proposed project. However, it is important to note that while the project will provide the necessary capacity building to enable ULAB formal and informal to improve their practices, improvement of these practices is also dependent upon other factors, including financial resources available to the smelters to upgrade their facilities and pressure from the government in terms of enforcement, licensing and regulations.

It should be noted that there is no safe way to process ULABs in backyards. Recommendations and proposed actions must therefore take into account alternative livelihood options for communities who depend on backyard subsistence level ULAB recycling and smelting. Such communities must also be engaged as well as educated to understand the risks posed by ULAB recycling, and preferably trained in alternative livelihood options.

The action plans developed as part of the project will specifically address this issue, and the project will assist countries to take action in this area. Activities will include assisting the governments to formulate and implement policies and actions to promote integration of the informal backyard ULAB recycling sector into the formal sector, and develop local government training programs on how to engage ULAB recycling communities, raise their awareness about the issue, and promote alternative livelihoods, such as creating ULAB collection systems and centers, or alternative livelihood training. In addition, the project will assist at least one country to initiate and implement a pilot remediation project in an area where backyard ULAB recycling is causing human health exposure risk. As part of the pilot project, members of the community previously engaged in ULAB recycling will be trained in relevant alternative livelihoods.

The project will also provide technical guidance and formal and on-the job training to governments and other stakeholders to design and implement at least one pilot lead remediation project to mitigate health exposures to lead.

For lead in paint, activities will include training and assisting government agencies to engage with the paint industry and monitor and evaluate compliance with existing or future laws concerning lead in paint, among other actions.

Component D. Monitoring, extracting and sharing lessons learned, adaptive feedback,

and evaluation
Budget: 234,000 US$; GEF: 109,000 US$; Cofinancing: 125,000 US$.

Outcome D.1. Models from the ULAB supply chain and urban health risk assessment from lead in paint, lessons learned and best practices for phasing out lead in paint and unsafe ULAB recycling/smelting practices are shared with governments, industry and relevant stakeholders in each selected country, as well as regionally.

Outputs:

D.1.1 At least two national workshops per country per year held.
D.1.2 One regional workshop held.
D.1.3 Project Mid-Term and Final Evaluations conducted.
D.1.4 Lessons learned and best practices are accumulated, summarized and disseminated at national, regional and international level.

Mid term and final evaluations will be completed and compiled into reports. Results and lessons learned will be extracted. Best practices will be shared nationally and regionally through a series of workshops and meetings. Reports and Research results will be disseminated globally.

Further details are provided in the Project Document's chapter VI Monitoring Framework and Evaluation.

Incremental Cost Reasoning

The request of financial support from GEF for the Chemicals focal area is justified by the large number of people affected by exposures to lead in the selected project countries, the widespread nature of the problem, the economic drivers behind it, and the severity of the environmental and health impacts of lead. Projects implemented in the countries so far, due to their limited size and scope, have had only localized impacts. Through the regional project proposed, the project will establish a platform for exchange of experiences and best practices, and showcase successful approaches to minimizing the adverse health and environmental effects of lead.

The GEF allocation for the selected countries are not equal for the following reasons:

- The ULAB supply assessment study in this proposal will be conducted in the Greater Jakarta area. Thus, a majority of the costs for Outcome 3 are budgeted for Indonesia.

- The residential health assessment will be conducted in Manila. Thus a majority of the costs for Outcome 2 are budgeted for the Philippines.

GEF co-financing will assist the Government of Indonesia and the Philippines to take appropriate action to promote the sound management of lead in two major potential sources of lead contamination, ULAB recycling and smelting and lead in paint. In particular:

- In Indonesia, the Asian Development Bank is funding a $750,000 project to improve ULAB smelting and recycling practices in a Jakarta-wide initiative, and SAICM is currently funding a planned lead remediation pilot project at Cinangka. GEF co-financing will add to that effort by assisting partners and the Government to complete the remediation project, and undertake a greater Jakarta area study to better understand the impact of ULAB recycling in order to develop and build capacity to take action to mitigate health exposures to lead.

- In the Philippines, Blacksmith has been working with the battery industry and the Department of Natural Resources to raise awareness about the dangers of lead, conduct children's health assessments and remove and dispose of contaminated battery casings used

as flooring and furniture in contaminated homes, as well as design a remediation plan for a lead-contaminated land, including a soccer field in Meycauayan City. The Asian Development Bank is funding a $750,000 project to mitigate toxic pollution in the greater Metro Manila area, including that caused by unsafe ULAB smelting and recycling practices. GEF co-financing will add to that effort by assisting partners, Blacksmith, DENR and the University of the Philippines Los Baños Foundation, Inc. and the Government to better understand the impact of ULAB recycling, engage formal and informal sector ULAB smelters, and assist the government and battery industry to improve the recycling and smelting practices of formal smelters, phase out unsafe practices in the informal sector, and complete a pilot lead remediation project.

- Globally, GEF co-financing will complement an ongoing EU and World Bank funded project by Blacksmith and UNIDO to identify and assess toxic hotspots and their human health impacts, including sites contaminated with lead from unsafe ULAB recycling and smelting activities. Approximately $65,000 from those grants will go toward this effort. GEF co-financing will enable project partners to expand and focus this identification and assessment effort on ULAB sites in Indonesia and the Philippines.

Global Environment Benefits

When improperly managed, lead can have severe impacts on the environment, occupational and public health. Lead contamination from unsafe smelting practices, especially from the formal and informal recovery and recycling of ULAB is one of the major sources of lead pollution globally, but the scope of its impacts on human health is not well understood. Short of closing down unsafe operations, few examples exist as models for low- and middle-income countries to engage industry and communities to prevent emissions whilst protecting livelihood opportunities. Furthermore, the entire ULAB recovery/recycling supply chain is not well understood, and models for better understanding the challenges facing governments and industry to safely manage lead from ULABs is sorely needed. In addition, whilst GAELP has taken enormous strides to encourage voluntary action by the paint industry to phase out lead in paint, as well as development of legislation in countries, very little is known about the extent of the environmental health risks due to lead in paint in low- and middle-income countries. This lack of knowledge about the impacts of improper management of lead on as well as a lack of capacity by governments to take effective action to mitigate health risks, and monitor compliance with existing regulations is hindering the sound management of lead. This project will promote the sound management of lead and develop recommendations for necessary actions to mitigate the adverse impacts of lead on the environment and public health, using a suite of countries as models for Asia and the world. Specifically, the project will promote effective actions and long term capacity to prevent further toxic lead emissions from the ULAB industry from unsafe recycling and smelting practices, particularly the informal sector. In addition, it will work with the paint industry to phase out use of lead in paint, preventing widespread contamination in buildings, homes, and products.

Innovativeness

The issue of lead contamination from ULAB recycling and lead paint has not received widespread attention in the international community, as has lead in gasoline, despite its well-documented impacts on public health, especially that of children. This project uses an innovative approach to promoting environmentally safe management of lead in these two industries through its stakeholder methodology, “learning by doing” approach to capacity building and formation of public-private partnerships to solve pollution problems.

Sustainability

This project’s approach is designed to ensure long-term sustainability of activities and results. In particular, the focus on building local capacity and “learning by doing” ensures

knowledge and skills learned in training workshops are applied on the job, and continue to be used after the project ends. These skills can then be transferred to other related projects or used to replicate similar work in other areas. Provision of technical oversight and guidance throughout the application of knowledge and skills ensures that those trained have access to technical assistance during project implementation, especially when needed for troubleshooting or addressing challenges or complications that may arise. In addition, engaging with multiple stakeholders and collaboratively designing specific recommendations for action in each country ensures local buy in from a wide range of constituents and participants who are committed to mitigating current and preventing future exposures to lead caused by lead in paint and unsafe ULAB recovery, recycling and smelting practices.

Scaling Up

Lead in paint and ULABs can be found in each of the proposed project countries, and in many low- and middle-income countries, as can toxic hotspots associated with the unsafe recycling and smelting of ULABs. This project's approach, if successful, can be replicated in many countries and some regions around the world. Results from the project will be crucial for future proposals in both the selected countries, and in Asia and other regions, inclygin potential projects under GEF VI. Because the dynamics of the supply chain in particular for ULABs is not well understood, the supply chain assessment proposed here for Indonesia is key to identifying what type of solutions and actions are feasible, practical and cost-effective. Conducting the analysis in Indonesia should provide a broad overview of the range of different types of challenges likely to be encountered globally, and will contribute greatly to addressing this issue in Asia.

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 and/or its preparation:

Key partners for this project include:

UNDP will be responsible for overall project implementation, monitoring and reporting.

The Blacksmith Institute will be the main executing partner agency.

International Lead Management Center will provide key technical expertise and guidance related to ULABs, especially for the training and capacity building elements related to the ILMC Benchmarking Assessment Tool (BAT) and the Basel Technical Guidelines for the ESM of ULABs.

Key stakeholders at the national level include government agencies, national NGO's and Universities and local communities.

In Indonesia, critical partners are the Ministry of Environment and the Indonesian Lead Information Centre (KPBB). The project will also liaise and collaborate with the Ministries of Industry, Labor, Trade, Transport and Health, and the Agency for Assessment and Technology of Indonesia (BPPT), the Hazardous Chemical and Waste Industry Association, the Indonesian Battery Industry Association, and the Indonesian Automotive Industry Association. NGO partners may include Aisyiyah (Islamic Women's group from Muhammadiyah, the second largest Islamic organization in Indonesia with 30 million members, engaged in empowering grassroots action in urban communities), Jakarta Social Institute (a Catholic NGO active on urban communities and urban poor issues), and Suara Ibu Peduli (The Voice of Mother's Care, an NGO with members primarily in the middle to upper class, and very active in the campaign for children and mother's welfare).

In the Philippines, the main partners are the Department of Environment and Natural Resources (DENR), the Environmental Management Bureau, the Philippines Association of Battery Manufacturers, Inc., the

University of the Philippines Los Baños Foundation, Philippine Recyclers, Inc, and the Trust for Remediation of Contaminated Soils.

Other project partners will include the International Lead Association, the Global Alliance to Eliminate Lead Paint (GAELP), the UN Environment Program (UNEP), the World Health Organization (WHO), the Basel Convention Regional Center for Asia and the Pacific, and other local community groups.

At the core of this project is Stakeholder Group methodology, which is used by Blacksmith in every pollution or remediation intervention project. A Stakeholder Group will be convened in each of the selected proposed countries, and will be comprised of representatives from affected communities (leaders, teachers, doctors, business owners, or others), local government (local mayor's office, Ministry for Health/Environment, local environment management authority), local universities, local NGOs, lead industry (paint, smelting, recycling) and other relevant stakeholders. The Stakeholder Group functions to help build consensus amongst all actors, and ensures distribution of information to all relevant parties. Extremely important to project sustainability and effectiveness, the Stakeholder Group ensures buy-in from all stakeholders, and guarantees the project works closely with the communities and local officials and adheres to local regulations.

[1]Landrigan P and Baker E. 1981. Exposure of children to heavy metals from smelters: Epidemiology and toxic consequences. *Environmental Research.* 24:204-224.; Woodruff T, Zota A, Schwartz J. 2001. Environmental chemicals in pregnant women in the United States: NHANES 2003-2004. *Environmental Health Perspectives.* 199(6):878-885.

A.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).:

Lead exposure can lead to significant economic and social consequences, which would be reduced and mitigated by this project's efforts. Chronic exposure to lead can increase the number of mentally disabled or impaired children, and decrease the population of exceptionally intelligent children who could have become leaders and innovators. Experts estimated that every additional 10μg/dl in a child's system can permanently strip them of 7 I.Q. points. Hypothetically, increased children's blood lead levels in a contaminated community could mean a drop in the proportion of children with IQs above 130 ("mentally gifted"), affecting its ability to be economically productive and attract investment. Conversely, it could mean an increase in the proportion of children with lower IQs, including those with levels below 70 ("mentally impaired"), who need special care and community support, making it more unlikely that they or their descendents will escape poverty. Children with blood lead levels above 70μg/dl are considered medical emergencies. A 2002 study by Landrigan, et al, examined increased pediatric healthcare costs on account of environmental exposures in four diseases in the US: lead poisoning, asthma, cancer and developmental disabilities. The study found that environmental exposures in relation to these diseases composed approximately 2.8% of total annual US healthcare costs, or $54.9 billion (Landrigan et al 2002). Furthermore, several studies have linked rates of societal violence with elevated lead levels (Delaney-Black et al 2002; Wright JP et al 2008).

In addition, ULAB recycling activities can be found in nearly every urban area in each of the proposed project countries and in many low- and middle-income countries. Informal ULAB recycling, a subsistence level activity often carried out by women or collectives of women, is a crucial means of income for many families. Unfortunately, the recycling and smelting activities often take place in backyards, where significant exposures to children can occur. Children often accompany their mothers as they work. By integrating livelihood considerations and community education/awareness raising needs into design of the recommended actions, this project will be able to implement solutions that provide quick improvements in health and working conditions, without taking away all associated economic opportunity.

[1]Landrigan PJ, Schechter CB, Lipton JM, Fahs MC, Schwartz J. 2002. Environmental pollutants and disease in American children: Estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. *Environmental Health Perspectives.* 110:721-728.

[1]Delaney-Black V, Covington C, Ondersma SJ, Nordstrom-Klee B, Templin T, Ager J, *et al.* 2002. Violence exposure, trauma, and IQ and/or reading deficits among urban children. *Archives of Pediatrics and Adolescent Medicine*. 156(3):280-285; Wright JP, Dietrich KN,

Ris MD, Hornung RW, Wessel SD, Lanphear BP, *et al.* 2008. Association of prenatal and childhood blood lead concentrations with criminal arrests in early adulthood. *PLoS Medicine.* 5(5):e101.

A.4 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:

Risk	Level	Risk Mitigation Measures
Lack of sustained political support	Low	Relationships with the Ministries of Environment in each of these countries are well established. Ongoing projects have enjoyed considerable support from all the relevant Ministries. Blacksmith has initiated strategic planning processes to address toxic pollution at a national level with the Department of Natural Resources (DENR) in the Philippines and the Ministry of Environment of Indonesia. In Indonesia, Blacksmith and the Ministry of Environment secured $250,000 from SAICM to pursue preliminary and preparatory work on ULABs for this project, and have together approached the Asian Development Bank (ADB) for co-financing for this proposed GEF project as explained above. DENR and Blacksmith have also approached ADB for co-financing for this proposed GEF project. To minimize the risk of lack of political support, Blacksmith, in consultation with UNDP's regional centre in Bangkok and the UNDP Country Offices in each of the project countries will regularly engage government agencies, at multiple levels to ensure continued support for and broad knowledge about this proposed GEF project.
Climate change could exacerbate lead contamination.	Low	This proposed GEF project is focused on capacity building, raising awareness and implementing action to reduce health risks to local communities. Climate change will have limited impact on achievement of the project's objectives. Nevertheless, the more efficient recovery and recycling of ULABs is, the lower the energy consumption and the lower the impact on greenhouse gases. However, because climate change is predicted to have impact on rainfall patterns, significant climatic events could result in spread of lead contamination from unsafe ULAB recycling/smelting practices to downstream communities or leaching of lead into groundwater, potentially spreading contamination to much larger areas, causing future clean-up costs to be much more costly. Thus, it is important to prevent as much active pollution and contamination as quickly as possible, which will then allow governments to focus efforts on remediation of legacy lead contamination.
Low capacity of ULAB industry to improve practices and paint industry to phase out use of lead in paint	Med	This proposed GEF project aims to involve industry from project start to ensure industry involvement and support, without which the sound management of lead will be much more difficult. The project aims to find market-based and workable solutions that are implementable, cost effective and attractive to industry.
Low willingness from the formal ULAB and paint Industry to change their practices	Low	Engaging industry partners is key to this project's success. Once industry partners are aware of the scope of health risks, and understand that the government sees them as key partners and they see they have a voice in designing the plans to reduce and mitigate health exposures, they should be more willing to engage. Having support of the International Lead Industry will also help boost local industry confidence in this project. In addition, the economic assessment of the ULAB sector in Jakarta will provide key recommendations as to how to implement market-based solutions with built in incentives for ULAB smelters to improve practices.
Difficulty to engage informal ULAB recyclers and phase out	Med	There is no safe way to recycle batteries informally. However, because of its informal and subsistence livelihood nature, backyard and unlicensed ULAB smelters and recyclers may be hesitant to change practices. There is some risk that if the government mandates closure of

informal and backyard recycling/smelting practices.		unsafe backyard and informal recycling, that these polluting activities will merely be relocated to other areas, further spreading contamination. Thus, engaging ULAB recycling communities is key. Once backyard recyclers understand the health risks posed to their children and communities and are provided an alternative option, such as formalizing and becoming battery collectors, or being trained in an alternative livelihood activities, they should be willing to stop unsafe recycling practices. Similarly, when informal/unlicensed ULAB recycling facilities understand they are considered partners and part of the solution, they will be more likely to undertake activities to improve recycling practices.
Overall Risk Rating	Low	

A.5. Explain how cost-effectiveness is reflected in the project design:

The proposed project will be cost effective in achieving its objectives because of several aspects.

Project implementation will follow standard UNDP rules and regulations and will assure that procurement processes will be open, transparent and competitive, and all larger contracts will be published internationally. This should assure that value for money will always be achieved.

The project will utilize Blacksmith Institute's Technical Advisory Board (TAB) members to provide technical expertise for this project as and when required. The TAB is comprised of highly experienced professionals from a range of disciplines who provide advice, insights and guidance to Blacksmith's strategy and operations, including technical assistance, quality control, and monitoring and evaluation to produce safe and effective interventions. The TAB includes experts on environmental and occupational health and remediation, among other areas. Many of the TAB members offer their services to Blacksmith on a pro bono basis, which will help reduce project costs.

The project will serve as a platform for multistakeholder engagement. This format, working with a variety of government agencies, industry and other stakeholders enables the group as a whole to collaboratively identify and share resources rather than each agency or sector working in isolation to address the same set of concerns.

In addition, the project will be able to tap into UNDP and Blacksmith's staff already in place in each of the project countries and strong relationships with project partners. This will ensure rapid start up, and will minimize potential costs associated with hiring project staff and consultants.

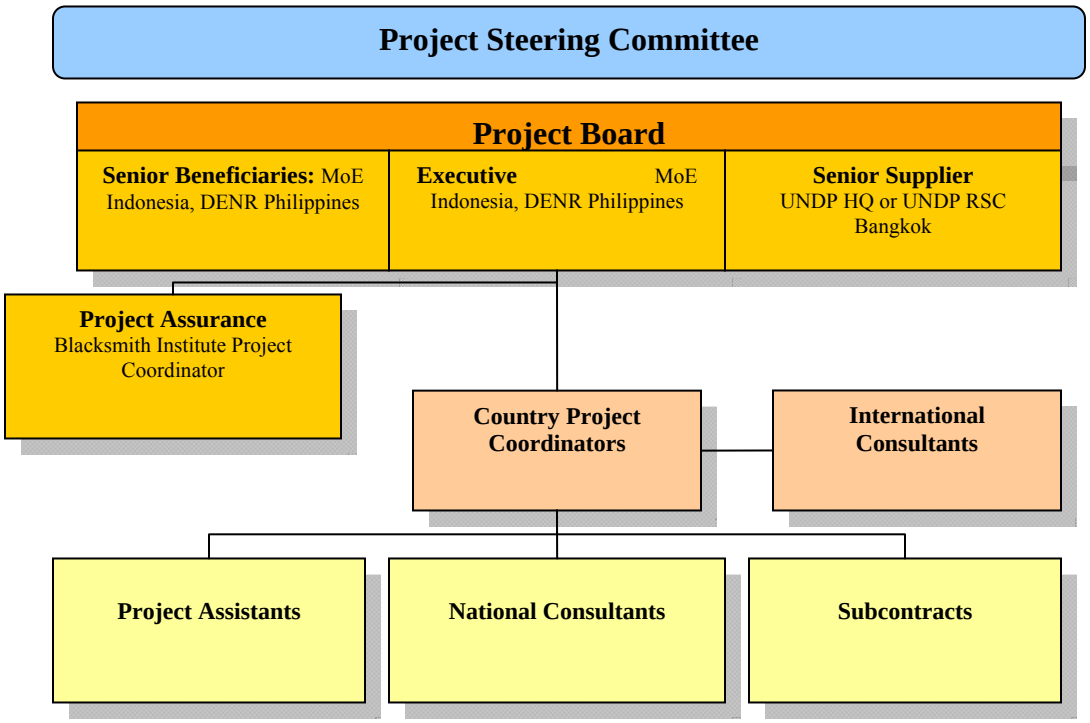
A.6. Outline the coordination with other relevant GEF financed initiatives [not mentioned in A.1]:

In addition to the project and initiatives mentionned in Section A.1, the following list of initiatives are expected to provide useful information, lessons-learned or a good policy/regulatory foundation for the components to be carried out under the proposed project. Coordination with the executing agencies/entities will be ensured.

- UNEP – Regional MSP on "Lead Paint Elimination Project in Africa (GEF Grant: 1,000,000 US$)
- UNIDO – China "Reduction of Mercury Emissions and Promotion of Sound Chemical Management in Zinc Smelting Operations" (GEF Grant: 990,000 US$)
- UNEP/WHO – Global Alliance to Eliminate Lead Paint.

A.7 Describe the institutional arrangement for project implementation:

Please also refer to the Project Document **Section V: Management Arrangements**, which can be found on page 29.



The project will be implemented by the UNDP (under the UNDP/GEF Chemicals and Waste Focal Area), and executed through the UNDP NGO execution modality by the Blacksmith Institute. The executing body will consult and collaborate with UNDP/GEF and UNDP's MPU/Chemicals Unit staff and partners as appropriate.

Project Board: The Project Board (PB) will be responsible for making management decisions for the project, in particular when guidance is required by the Project Coordinator. It will play a critical role in project monitoring and evaluations by assuring the quality of these processes and associated products, and by using evaluations for improving performance, accountability and learning. The Project Board will ensure that required resources are committed. It will also arbitrate on any conflicts within the project and negotiate solutions to any problems with external bodies. In addition, it will approve the appointment and responsibilities of the Project Coordinator and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan (AWP), the Project Board can also consider and approve the quarterly plans and approve any essential deviations from the original plans. The project will be subject to Project Board meetings at least twice every year. The first such meeting will be held within the first 6 months of the start of full implementation. At the initial stage of project implementation, the PB may, if deemed advantageous, wish to meet more frequently to build common understanding and to ensure that the project is initiated properly.

To ensure UNDP's ultimate accountability for project results, Project Board decisions will be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency, and effective international competition. In case consensus cannot be reached within the Board, the final decision will rest with the UNDP Project Coordinator.

Members of the Project Board will consist of key national government and non-government agencies, and appropriate local level representatives. UNDP will also be represented on the Project Board, which will

be balanced in terms of gender. Potential members of the Project Board will be reviewed and recommended for approval during the Project Appraisal Committee (PAC) meeting. The Project Board will contain three distinct roles:

- *Executive Role*: This individual will represent the project "owners" and will chair the group. This role will rest with the national government representatives.
- *Senior Supplier Role*: This requires the representation of the interests of the funding parties for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board will be to provide guidance regarding the technical feasibility of the project. This role will rest with UNDP-MPU/Chemicals represented by the **Director of the MPU/Chemicals Unit or Senior Specialist MPU/Chemicals of the UNDP RCU Bangkok**.
- *Senior Beneficiary Role*: This role requires representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board will be to ensure the realization of project results from the perspective of project beneficiaries. This role will rest with the other institutions (key national governmental and non-governmental agencies, and appropriate local level representatives) represented on the Project Board, who are stakeholders in the project.

Project Assurance: The Project Assurance role supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The Project Assurance role will rest with the **Blacksmith Institute Project Manager**.

The Country Project Coordinators will be responsible for the coordinating of all activities to achieve the objectives, outcomes and outputs set forth in this project. The Country Project Coordinators will report directly to the Project Manager at Blacksmith Institute.

As the provider of the funds for this project, the GEF logo will appear on all project Publications, along with other donor logos. Any quote appearing publication of GEF funded projects must also acknowledge GEF's participation. The UNDP logo will be equally or more visible and separate from the GEF logo.

In its role as GEF Implementing Agency (IA) for this project UNDP shall provide project cycle management services as defined by the GEF Council (described in Annex VII).

Blacksmith Institute shall request UNDP to provide direct project services specific to project inputs according to its policies and convenience. These services –and the costs of such services- are specified in the Letter of Agreement in Annex VII. In accordance with GEF Council requirements, the costs of these services will be part of the executing entity's Project Management Cost allocation identified in the project budget. UNDP and the Blacksmith Institute acknowledge and agree that these services are not mandatory and will only be provided in full accordance with UNDP policies on recovery of direct costs.

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, NCSA, NIPs, PRSPs, NPFE, etc.

Each of the selected country governments have prioritized the issue of hazardous waste contamination and its human health impacts, and all are members of the Strategic Approach to International Chemicals Management (SAICM). As such, this project is in line with each of the selected countries national policies and plans. In addition, the Governments of Indonesia and the Philippines have both requested technical support from Blacksmith Institute to address issues related to lead.

The Ministry of Environment of Indonesia is establishing a national plan for dealing specifically with toxic chemicals, hazardous waste and contaminated sites. Addressing contamination and pollution from industrial activities is included as a priority in Indonesia's

2010-2014 Country Development Strategy, and dealing with chemicals, wastes and toxic pollution is specifically mentioned in Indonesia's Agenda 21, which includes long-term goals for sound chemicals management until 2020. However, so far there are no national regulations controlling lead in paint and other consumer products in Indonesia.

The Department of Environment and Natural Resources in the Philippines (DENR) is also currently working to establish a national plan to deal specifically with toxic chemicals, hazardous wastes and contaminated sites. The Philippines 2011-2016 Development Plan identifies hazardous waste and pollution as a major risk to environmental health and calls for reduction of pollution and hazardous waste.

The Philippines has engaged with the Global Alliance to Eliminate Lead Paint (GAELP), but there are still many paint production companies that have not yet complied with calls to reduce the lead content in their products.

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

Each of the selected country governments have prioritized the issue of hazardous waste contamination and its human health impacts, and all are members of the Strategic Approach to International Chemicals Management (SAICM). As such, this project is in line with each of the selected countries national policies and plans. In addition, the Governments of Indonesia and the Philippines have both requested technical support from Blacksmith Institute to address issues related to lead.

The Ministry of Environment of Indonesia is establishing a national plan for dealing specifically with toxic chemicals, hazardous waste and contaminated sites. Addressing contamination and pollution from industrial activities is included as a priority in Indonesia's 2010-2014 Country Development Strategy, and dealing with chemicals, wastes and toxic pollution is specifically mentioned in Indonesia's Agenda 21, which includes long-term goals for sound chemicals management until 2020. However, so far there are no national regulations controlling lead in paint and other consumer products in Indonesia.

The Department of Environment and Natural Resources in the Philippines (DENR) is also currently working to establish a national plan to deal specifically with toxic chemicals, hazardous wastes and contaminated sites. The Philippines 2011-2016 Development Plan identifies hazardous waste and pollution as a major risk to environmental health and calls for reduction of pollution and hazardous waste.

The Philippines has engaged with the Global Alliance to Eliminate Lead Paint (GAELP), but there are still many paint production companies that have not yet complied with calls to reduce the lead content in their products.

B.3 The GEF Agency's program (reflected in documents such as UNDAF, CAS, etc.) and Agencies comparative advantage for implementing this project:

The proposed project is entirely in line with **UNDP's Strategic Plan (0214 – 2017)**, in particular its **Environment and Sustainable Development** Primary Outcome:

Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded
Output 1.3. Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste

For each of the selected project countries, outcomes related to environmental sustainability have been taken up in their respective **United Nations Development Assistance Frameworks (UNDAFs); Country Programmes; and Country Programme Action Plans (CPAPs)**:

UNDAF:

Indonesia "United Nations Partnerships for Development Framework (2011 – 2015)
Outcome 5: Climate Change and Environment
Strengthened climate change mitigation and adaptation and environmental sustainability measures in targeted vulnerable provinces, sectors and communities

Philippines Supporting Inclusive, Sustainable and Resilient Development The United Nations Development Assistance Framework (UNDAF) for the Philippines (2012 – 2018)
Outcome Area 2: Decent and productive employment for sustained, greener growth
Outcome Area 4: Resilience toward disasters and climate change (SO4.3 ENR protection and conservation)

Expected Country Programme Outcome(s):

Indonesia "UNDP Country Programme (2011 – 2015)"
UNDP Programme Component 2: Environment and Climate Change
Outcome 2.1: Responsible national institutions and relevant stakeholders are more effective in managing environmental resources and addressing environmental pollution

Philippines "Country Programme for the Philippines (2012 – 2016)"
CP/UNDAF Outcome 4: Adaptive capacities of vulnerable communities and ecosystems are strengthened to be resilient to threats, shocks, disasters, and climate change

Expected CPAP Output (s)

Indonesia "Country Programme Action Plan (CPAP) 2011 – 2015"
Output 2.1.3: Strategy and guidelines developed for the protection of the environment, focusing on persistent organic pollutants (POPs) reduction

Philippines "Country Programme Document (2012 – 2016)"
Increased capacities of key duty-bearers to provide an enabling environment for claimholders'
Improved access to an enhanced natural resources base, sustainable energy and a cleaner environment
Capacities of key duty-bearers and claimholders at the national and local levels to prevent disasters by managing environmental risks

UNDP's Comparative advantage for implementing this project

As noted in Annex L of the document "Comparative advantages of the GEF agencies", UNDP has a comparative advantage in Capacity Building and provision of Technical Assistance. Projects which aim to reduce the use and releases of Persistent Toxic Substances (PTS) benefit from UNDP's experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation.

UNDP has been supporting various activities projects and programmes with the objective to support developing countries and countries with economies in transition to reduce releases of heavy metals and PTS into the environment and minimize human exposure. UNDP supported programmes entail activities which:

Reduce mercury use and exposures in artisanal and small-scale gold mining

- UNDP has been supporting activities in the area of Artisanal and Small Scale Gold Mining in Zimbabwe, Tanzania, Sudan, Indonesia, Brazil and Laos through the Global Mercury Project, but has also supported national projects in Honduras (GEF); Burkina Faso (PEI); Cambodia (SAICM); Brazil, French Guiana and Suriname (EU).

Reduce the use of Mercury in products (such as medical devices, light sources, dental amalgam, etc.):

- UNDP/GEF projects which contain components that aim to phase-out/down Mercury containing devices and improve waste management practices are the UNDP/WHO/HCWH project "*Demonstrating and Promoting Best Techniques and Practices for Reducing Health-Care Waste to Avoid Environmental Releases of Dioxins and Mercury*," while similar UNDP projects are currently in their Project Preparation Grant (PPG) Phase in Kazakhstan, Kyrgyzstan, Honduras, Uruguay, Egypt and Africa (covering Ghana, Madagascar, Tanzania and Zambia).

Reduce releases of Heavy metals and POPs from unsound disposal and recycling practices (e.g. open burning and incineration of e-waste and healthcare waste), as well as other waste related interventions, through:

- Pilot activities, which UNDP is supporting within the framework of the Basel Convention and its Partnership on Computing Equipment (PACE) working group, as well as through GEF projects in China and Egypt where UNDP is supporting the reduction of POPs and Persistent Toxic Releases by Environmentally Sound Management throughout the Life Cycle of Electrical and Electronic Equipment and Associated Wastes.

Predominantly, such activities are being carried out with financial support provided by the Global Environment Facility (GEF), through its Chemicals Focal Area. However, various other donors have also provided UNDP over the years with financial resources in order to reduce Mercury releases.

UNDP has field offices in each of the selected project countries, and strong relationships with local partners, including government agencies, private sector industry, academia and civil society. This will facilitate interaction with national counterparts and partners at the national and local level, and on-the-ground implementation of the proposed project.

C. DESCRIBE THE BUDGETED M &E PLAN:

Please refer to the Project Document's **Section VI: Monitoring Framework and Evaluation** on **page 41** for an overview of the budgeted M & E Plan.

For ease of reference it has also been pasted below.

Monitoring Framework and Evaluation

The project will be monitored through the following M& E activities. The M&E budget is provided in the table below.

Project start:

A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
b) Based on the project results framework, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.

c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Managment Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP-GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

- Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

  The APR/PIR includes, but is not limited to, reporting on the following:
  - Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
  - Project outputs delivered per project outcome (annual).
  - Lesson learned/good practice.
  - AWP and other expenditure reports
  - Risk and adaptive management
  - ATLAS QPR

Periodic Monitoring through site visits:
UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:
The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the

project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC).

End of Project:

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

M& E workplan and budget

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
Inception Workshop and Report	▪ Project Director and Country Coordinators ▪ UNDP CO, UNDP GEF	Indicative cost: 15,000	Within first two months of project start up
Measurement of Means of Verification of project results.	▪ UNDP GEF RTA/Project Director will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	▪ Oversight by Project Director Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	▪ Project Director and team ▪ UNDP CO ▪ UNDP RTA ▪ UNDP MPU	None	Annually
Periodic status/ progress reports	▪ Project Director and team	None	Quarterly
Mid-term Evaluation	▪ Project Director and team ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team)	Indicative cost: 16,000	At the mid-point of project implementation.
Final Evaluation	▪ Project Director and team, ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team)	Indicative cost: 26,000	At least three months before the end of project implementation
Project Terminal Report	▪ Project Director and team ▪ UNDP CO ▪ local consultant	0	At least three months before the end of the project

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
Audit	▪ UNDP CO ▪ Project manager and team	Indicative cost per year: **5,000**	Once throughout the project's duration
Visits to field sites	▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives	For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US$ 62,000 (excluding travel fees) (+/- 5% of total budget)	

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)*
Ms. Analiza Rebuelta-Teh	Undersecretary	**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, PHILIPPINES**	**12/13/2013**
Mr. Dana A. Kartakusuma	Special Advisor to the Minister on Economic and Sustainable Development Affairs	**MINISTRY OF ENVIRONMENT, REPUBLIC OF INDONESIA**	**10/8/2013**

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
Adriana Dinu, UNDP – GEF Executive Coordinator and Director a.i.		02/06/2014	Mr. Jacques Van Engel Officer in Charge UNDP/MPU/ Chemicals	212-906-5782	jacques.van.engel@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Please refer to the Project Document, **Section III: Project Results Framework**, on page 25.