



United Nations Development Programme
Countries: Indonesia and the Philippines
PROJECT DOCUMENT¹

Project Title: Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries

UNDAF **Indonesia** “United Nations Partnerships for Development Framework (2011 – 2015)

Outcome(s): 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)

UNDP Strategic Plan 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

UNDP Strategic Plan Secondary Outcome:

NA

Expected CP 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

¹ For UNDP supported GEF funded projects as this includes GEF-specific requirements

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

Executing Entity/Implementing Partner:

UNDP

Implementing Entity/Responsible Partners:

Blacksmith Institute

Brief Description

The objective of the project is to improve the health of vulnerable communities exposed to toxic pollution from lead paint and the recycling of used lead acid batteries (ULABs) in Indonesia and the Philippines. The project will work to promote the sound management of lead through the following major components: 1) Enable local government agencies, national stakeholders and the international community to better understand the scope of contamination from lead due to lead in paint and unsafe ULAB recycling and their impacts on human health, and identify feasible solutions to mitigate exposure risk; 2) Develop recommendations for action to phase out lead in paint and unsafe ULAB recycling practices; 3) Build local capacity of government agencies and national stakeholders to take concrete action to minimize the adverse effects of lead on human health and the environment from lead in paint and ULAB recycling. The project is expected to generate substantial local and global benefits for human health and the environment

Programme Period:	2014 - 2016	Total resources required (US\$):	3,309,000
Atlas Award ID:		Total allocated resources (US\$):	3,309,000
Project ID:		GEF	\$838,000
PIMS #:	5364	Blacksmith Institute:	
Start Date:	Feb 2014	HSBC (secured)	\$277,000
		WB (secured)	\$38,000
		EC (secured)	\$27,000
		ADB (pending)	\$1,500,000
End Date:	Jan 2016	MoE (Indonesia)	\$250,000
Mgmt Arrangement:	NGO Implemented	MoE (Philippines)	\$295,000
PAC Meeting Date:		ILMC	\$84,000 (in-kind)
		Total Co-financing	\$2,471,000

Agreed by (Government):

Date/Month/Year

Agreed by (UNDP):

Date/Month/Year

TABLE OF CONTENTS

<u>LIST OF ACRONYMS</u>	5
<u>I. SITUATION ANALYSIS</u>	6
CONTEXT AND GLOBAL SIGNIFICANCE	6
THREATS, CAUSES AND BARRIERS FOR ENVIRONMENTALLY SOUND MANAGEMENT OF LEAD IN PAINT AND ULABS	7
STAKEHOLDER ANALYSIS	8
BASELINE ANALYSIS	11
<u>II. STRATEGY</u>	12
POLICY CONFORMITY	12
PROJECT OBJECTIVE	12
PROJECT LEAD	12
PROJECT COMPONENTS, OUTCOMES AND OUTPUTS	12
KEY INDICATORS, RISKS AND ASSUMPTIONS	16
PROJECT CONSISTENCY WITH GEF STRATEGIC PRIORITIES AND OPERATIONS PROGRAMS FOR CHEMICALS FOCAL AREA IDENTIFIED IN GEF V.	17
INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS.	18
FINANCIAL MODALITY	19
COST-EFFECTIVENESS	19
SUSTAINABILITY	19
REPLICABILITY	19
<u>III. PROJECT RESULTS FRAMEWORK</u>	20
<u>IV. TOTAL BUDGET AND WORKPLAN</u>	24
<u>V. MANAGEMENT ARRANGEMENTS</u>	29
<u>VI. MONITORING FRAMEWORK AND EVALUATION</u>	31
<u>VII. LEGAL CONTEXT</u>	35

LIST OF ACRONYMS

ESM	Environmentally Sound Management
BPPT	Agency for Assessment and Technology (<i>Badan Pengkajian dan Penerapan Teknologi</i>)
CP	Country Programme
CPAP	Country Programme Action Plan
CUNY	City University of New York School of Public Health at Hunter College (CUNY Hunter)
DENR	Department of Environment and Natural Resources
ILMC	International Lead Management Center
ISS	Initial Site Screening
IQ	Intelligence Quotient
GAELP	Global Alliance to Eliminate Lead Paint
KPBB	Indonesian Lead Information Centre
NIOEH	The National Institute of Occupational and Environmental Health
Pb	Lead
TSIP	Toxic Sites Identification Program
ULAB	Used Lead Acid Batteries
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UPLBFI	University of the Philippines Los Baños Foundation, Inc.
US CDC	United States Center for Disease Control
WHO	World Health Organization

I. SITUATION ANALYSIS

Context and Global Significance

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. According to data from the Toxic Sites Identification Program (TSIP)², 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.
7. 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.
8. 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 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.
9. 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.

² TSIP database, 2013. Blacksmith Institute.

10. 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).

11. 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.

12. 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.

13. 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, volatilizes, 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 safety standards.

14. 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.³

15. 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 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

16. 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

³ Caravanos, et al. The burden of disease from pediatric lead exposure at hazardous wastes sites in seven Asian countries. Environmental Research. 2012.

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.
- e. **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.

17. 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

18. 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.

Stakeholder analysis

19. The development of sound lead management practices in Indonesia and the Philippines requires the participation of a variety of stakeholders in the public and private sectors, including but not limited to:

a. Public Institutions

Indonesia:

- *Ministry of Environment* is responsible for formulating policies and coordination in the field of environment and control of environmental impacts to realize quality improvement of the environment and achieve good governance in environmental management.
- *Ministry of Health* is responsible for promoting human health in Indonesia by mobilizing and empowering communities to live healthy lives, improving public access to health care, improving

availability of monitoring and health information and formulating and implementing national policy related to health.

- *Badan Pengkajian dan Penerapan Teknologi (Agency for Assessment and Technology -BPPT)* is a non-ministerial agency under the coordination of Ministry of Research and Technology in Indonesia. Formed in 1978, BPPT works in the following sectors: natural resources, agroindustry and bio industry, information technology, materials and energy and well as industrial design and engineering in mineral and coal sectors.
- Other potential government agencies: Ministry of Industry, Ministry of Labor, Ministry of Trade and Ministry of Transport

Philippines:

- *Department of Environment and Natural Resources (DENR)* is responsible for the conservation, management, development, and proper use of the country's environment and natural resources, specifically forest and grazing lands, and mineral resources. The *Environmental Management Bureau of DENR* is the national authority responsible for pollution prevention and control, and environmental impact assessment.
- Other potential government agencies may be included.

b. Academia

City University of New York School of Public Health at Hunter College, (CUNY Hunter) works with communities, nonprofits, private groups and government agencies to help people live healthier lives. It conducts research and creates new models of public health education and practice to solve urban health problems.

Philippines:

- The *University of the Philippines Los Baños Foundation, Inc* is a non-profit organization that assists UPLB to expand and optimally utilize its human, financial, and material resources toward accelerated and sustainable economic development. UPLBFI provides financial and other assistance to UPLB in its pursuit of excellence in science and technology education, research, and extension.

Indonesia:

- Potential University Partners with whom Blacksmith has a working history in Indonesia: *University of Indonesia (Jakarta), Bandung Institute of Technology (Bandung), University of Padjajaran (Bandung), and Indonesia Islamic University in Makassar*. Each has specific expertise related to either environmental health, toxicology, medical doctor and research.

c. Private Sector

Indonesia:

- *Hazardous Chemical and Waste Industry Association, the Indonesian Battery Industry Association, and the Indonesian Automotive Industry Association* are all interested to collaborate.

Philippines:

- *Philippines Association of Battery Manufacturers, Inc. and Philippine Recyclers, Inc* are all interested to collaborate.

d. Civil Society

Blacksmith Institute is an international not-for-profit organization dedicated to solving life threatening pollution issues in low- and middle-income countries. A global leader in this field, Blacksmith addresses a critical need to identify and clean up the world's worst polluted places. Blacksmith focuses on places where human health, especially that of women and children, is most at risk. Blacksmith works cooperatively in partnerships that include governments, the international community,

NGOs and local agencies to design and implement innovative, low-cost solutions to save lives. Critical to Blacksmith's success is working with and empowering local actors.

Indonesia:

- *Komite Indonesian Lead Information Centre (KPBB)* is a non-profit organization in Indonesia dedicated to minimizing the impacts of lead on human health and the environment. A well respected NGO, it was instrumental in outlawing the sale of leaded gasoline in Indonesia and has been working with Blacksmith Institute on several lead pollution projects, including a remediation of a lead contaminated site in Cinangka, and a small project under SAICM to promote safer ULAB recycling in Jakarta.
- *Other Potential Stakeholders:* 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).

Philippines:

- *The Trust for Remediation of Contaminated Soils* is a Philippine non governmental, not-for-profit organization whose mission is to serve the people of the Philippines by remediating contaminated soils throughout the country, to make use of best technologies to remediate contaminated soils, and to conduct and encourage environmental cleanup projects and public works, and ensure that contaminated material collected during these operations is disposed in a secure landfill or in such a way to prevent its release into the environment in the future.

e. International Organizations

- *The Global Alliance to Eliminate Lead Paint (GAELP)* was established in 2009 to promote the phase-out of lead in paint. This project will support GAELP's efforts to raise awareness about the issue, help countries identify lead exposures, assist industry to eliminate the use of lead in paint, and promote industry and government action to eliminate lead in paint.
- *International Lead Management Center* was founded in 1996 by the International Lead Industry in response to the need for coordination international action on the issue of lead risk management. A non-profit organization, the ILMC provides technical assistance to International Agencies, Governments and Companies in the Lead Industry Sector interested in assessing and reducing the risk of lead exposure. ILMC 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 and the Basel Technical Guidelines for the ESM of ULABs.
- *The UN Environment Program (UNEP) Chemicals Branch* works to protect humans and the environment from adverse effects caused by chemicals throughout their lifecycle, and hazardous waste. It is the focal point of UNEP activities on chemicals issues and the main catalytic force in the UN system for concerted global action on the environmentally sound management of hazardous chemicals.
- *The World Health Organization (WHO)* is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.
- *The Basel Convention Regional Center for Asia and the Pacific* was established in 1993 to assist developing countries and countries with economies in transition, within Asia and the Pacific region, through capacity building for the environmentally sound management of hazardous wastes, to achieve the fulfillment of the objectives of the Basel Convention.

At the core of this project is the “*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.

Baseline Analysis

20. 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.

21. 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.

22. 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.

23. 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.⁴ Average blood lead levels in local children at those sites were 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).

24. 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.⁵ A formal lead-acid battery manufacturing and ULAB recycling plant 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.

25. 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.⁶

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

⁴ 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.

⁵ 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>

⁶ 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>

- *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.

II. STRATEGY

Policy conformity

27. Each of the selected country governments has 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.

28. 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.

29. 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.

30. 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.

31. This project will support each country government to enhance their capacity to minimize the exposure risks posed by lead in paint and unsafe recycling/smelting of ULABs.

Project objective

32. 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

34. 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 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: 329,000 US\$; GEF: 222,000 US\$. Cofinancing: 107,000 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 Tool⁷ 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 be 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 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.

⁷ International Lead Management Centre (ILMC) Benchmarking Assessment Tool (BAT) <http://www.ildaint.org/news/ila-news/2013-04-26/international-experts-work-with-chinese-lead-industry-to-promote-good-practice-at-manufacturing-plants>

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: 851,000 US\$; GEF: 137,000 US\$; Cofinancing: 714,000 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: 1,783,000 US\$; GEF: \$287,000 US\$; Cofinancing: 1,496,000 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 environmentally 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: 251,000 US\$; GEF: 117,000 US\$; Cofinancing: 134,000 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 chapter VI Monitoring Framework and Evaluation.

Key indicators, risks and assumptions

35. The following are some of the overall risks and risk mitigation measures that will apply.

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 informal and backyard recycling/smelting practices.	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 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	

36. Project indicators are based on the performance to be achieved and on the accomplishment of desired outcomes that will result in the meeting of the project goals and objective. Indicators are described in the Project Results Framework (See Section III).

Project consistency with GEF strategic priorities and operations programs for Chemicals focal area identified in GEF V.

37. The project and its activities are in conformity with the following Strategic Objectives, Outcomes and Indicators of GEF 5 Focal Area Strategy for the Chemicals focal area, "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”

Objective 3 to “pilot sound chemicals management”

Outcome 3.2 to “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.”

This project will support the GEF Chemicals program area by building national capacity to take effective action to promote environmentally sound management of lead, particularly the phasing out of lead in paint and unsafe recycling and smelting of used lead acid batteries (ULABs) to reduce risks to human health and the environment.

Project Component 1 will build better understanding in the countries with regard to 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.

Project Component 2 will develop recommendations for action to phase out lead in paint and unsafe ULAB recycling practices, with a focus on the informal sector.

Project Component 3 will build educational and technical capacity in the selected countries to take effective action to minimize the adverse effects of lead on human health and the environment from lead in paint and unsafe ULAB recycling, including remediation.

Project Component 4 will enable countries to share lessons learned and best practices about how to minimize risks to human health and the environment from two potential sources of exposure to lead, lead in paint and unsafe recycling/smelting of ULABs.

Incremental reasoning and expected global, national and local benefits.

38. 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. According to data and trends from Blacksmith Institute’s Toxic Sites Identification Program, which has identified more than 3,000 highly contaminated sites where humans are exposed to toxicants at dangerous levels, lead is the most commonly found contaminant and impacts the largest number of people (mercury is second). While international efforts to eliminate the use of lead in gasoline were hugely successful and contributed to avoided exposures for millions of children, health exposures caused by lead in paint and ULABs has not achieved comparable recognition or response. This project will help contribute to the baseline of information regarding lead contamination and health impacts in Asia, and the need for a concerted international effort to deal with this threat to global health.

39. The widespread nature of the problem, the economic drivers behind it, and the severity of the environmental and health impacts of lead warrant international attention. 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 an exchange of experiences and best practices, and showcase successful approaches to minimizing the adverse health and environmental effects of lead.

40. 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 are sorely needed.

41. 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.

42. 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 two 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.

43. The main global benefit will be improved information about the size and scope of lead contamination from lead in paint and ULABs, models and lessons that can be shared internationally for working with industry and government to take concrete action to mitigate health risks, and reduced health exposures to lead in the project countries. All project partners will benefit from improved technical capacity and knowledge.

Financial modality

44. This project will be implemented with the NGO Execution Modality and it will follow standard UNDP rules and regulations.

Cost-effectiveness

45. Project activities have been designed in such a way that cost-effectiveness should be achieved during project implementation. The 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.

Sustainability

46. 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/webinars are applied on the job, and continue to be used after the project ends. The trained individuals can then use their skills in similar projects or transfer the skills to other related projects. In addition, governments can transfer their capacity to other colleagues via internal government training programs.

47. 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.

48. Engaging with multiple stakeholders, especially industry, 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. This is especially important to enable governments to effectively stop active lead pollution, and prevent future contamination.

49. The project will also provide recommendations to governments regarding policy changes and action to support regulatory and enforcement activities that will help ensure sustainability at the national level. In particular, the national action plans drafted in collaboration with the multi-stakeholder working group, will help ensure the government has a document to guide action in the coming years, as well as a vision for mitigating exposure risks to lead from lead in paint and unsafe ULAB recycling.

Replicability

50. 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, including potential projects under GEF VI.

51. Because the dynamics of the supply chain in particular for ULABs are 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.

III. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:

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

Country Programme Outcome Indicators:

Indonesia: 1) National Implementing Plan (NIP) on POPs reduction 2) Implementation guidelines of NIP to effectively monitor POPs emission reduction

Philippines: Percentage of local development plans incorporating and budgeting disaster risk reduction and climate change adaptation measures; percentage of degradation rates of critical environmental and natural resources, Percentage decrease in mortalities, morbidities and economic losses from natural hazards and environmental degradation

Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded

Applicable GEF Strategic Objective and Program: Chemicals focal area, “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.” Objective 3 to “pilot sound chemicals management”

Applicable GEF Expected Outcomes: Outcome 3.2 to “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.”

Applicable GEF Outcome Indicators: Indicator 3.2.1 Countries implement SAICM relevant activities that generate global environmental benefits and report to the International Conference on Chemicals Management

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Project Objective⁸</p> <p>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</p>	<p>International community, project country governments, industry (paint manufacturers, battery smelters, lead industry) and other stakeholders are aware of the impact of unsafe ULAB recycling and lead in paint in Asia and take action to mitigate health exposure risks.</p> <p>Increase in number of ULAB smelters and paint companies in the project countries pledging to and taking action to phase out unsafe practices.</p> <p>Feasibility of market-based solutions to phase out backyard ULAB recycling assessed and progress made to implement feasible solutions in each project country.</p>	<p>Lack of comprehensive understanding about the scope of human health impacts from lead acid battery recycling and lead in paint, and lack of national capacity/technical expertise have hindered wide scale adoption of the Basel Convention Technical Guidelines for the ESM of ULABs and the phasing out of lead in paint.</p> <p>Formal guidelines for eliminating lead from paint in these countries are lacking.</p>	<p>Scope of the extent of lead exposures and contamination due to ULABs and lead in paint better understood by government agencies, industry, other stakeholders, and international community.</p> <p>Recommendations and national action plans to phase out lead in paint and unsafe ULAB recycling/ smelting practices drafted.</p> <p>Local capacity of governments, industry and other stakeholders improved to take effective action to implement the recommendations and actions.</p>	<p>Online Toxic Identification Sites Project database.</p> <p>Stakeholder group meeting minutes.</p> <p>Partner and project progress and monitoring reports.</p> <p>List of recommendations.</p> <p>Draft national action plans. Interim and final reports.</p>	<p>Paint and ULAB industry partners and governments are willing to engage and promote the ESM of lead to reduce impacts on environment and health.</p>

⁸ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

<p>Outcome A.1⁹ 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</p>	<ul style="list-style-type: none"> ▪ Number of ULAB sites added to inventory (including no. of people impacted) ▪ Reports on scope and impacts of ULAB recycling globally and in selected project countries available ▪ List of priority ULAB sites for intervention in each project country available, 	<p>Toxic Sites Identification Program database has identified ~100 ULAB lead contaminated sites globally, more than half of which are in Asia.</p>	<ul style="list-style-type: none"> ▪ At least 150 lead contaminated sites from ULAB recycling/smelting assessed. ▪ Reports on scope and impacts of ULAB recycling globally and in selected project countries prepared. ▪ List of priority ULAB sites for intervention in each project country prepared. 	<ul style="list-style-type: none"> ▪ Data from Toxic Sites Identification Project database. ▪ List of sites for intervention. ▪ Project progress and monitoring reports. ▪ Interim and final reports. 	<p>Ongoing support from government and communities continues.</p>
<p>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,</p>	<ul style="list-style-type: none"> ▪ Report and scientific paper on the environmental health risk from lead in paint available ▪ Number of agencies/stakeholders with whom the report is shared. 	<p>Lead in paint sites are not currently recorded in the Toxic Sites Identification Program database.</p> <p>Understanding of the scope of human health impact from lead in paint not well understood in Asia.</p>	<ul style="list-style-type: none"> ▪ An urban residential study on environmental health risk from lead in paint conducted. ▪ At least one scientific paper and report produced on environmental health risks from lead in paint in an urban residential area in Asia drafted. 	<ul style="list-style-type: none"> ▪ Results of study; ▪ Drafts of report and scientific paper. 	<p>Model used in the study is applicable to other comparable cities in Asia, and results are of interest to governments, industry and other stakeholders.</p>
<p>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.</p>	<ul style="list-style-type: none"> ▪ Report on the results of the ULAB supply chain. Assessment of Greater Jakarta available. ▪ Number of agencies/stakeholders with whom the report is shared. 	<ul style="list-style-type: none"> ▪ Dynamics of supply chains for ULABs, especially the informal sector, not well understood. ▪ Basel ULAB Technical Guidelines do not incorporate the informal sector/livelihoods issues. 	<ul style="list-style-type: none"> ▪ Clear understanding of the dynamics of the supply chain of ULABs in the Greater Jakarta region. ▪ Report prepared and shared with each project country. 	<ul style="list-style-type: none"> ▪ Reports. ▪ Project progress and monitoring reports. ▪ Interim and final reports. 	<p>Supply chain assessment in Greater Jakarta identifies opportunities and solutions to overcome challenges to ESM of lead in ULABs and is relevant to Asia as a regional model.</p>
<p>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 have been drafted.</p>	<ul style="list-style-type: none"> ▪ Number of functioning multi-stakeholder workgroups established. ▪ Number of reports available which present national recommendations for ULAB and lead in paint action. ▪ List of recommendations for improvements to the 	<ul style="list-style-type: none"> ▪ Regulations related to active lead emissions for lead smelters/ recyclers exist, but often are either not enforced or not strictly enforced. ▪ Regulations related to lead in paint exist or are in draft in Philippines, but not Indonesia. ▪ There are no country-level plans in the selected project countries 	<ul style="list-style-type: none"> ▪ Multistakeholder working group established. ▪ Governments, industry and other stakeholders more aware of risks posed by unsafe ULAB recycling and lead in paint. ▪ Recommendations and national action plans for phasing out lead in paint 	<ul style="list-style-type: none"> ▪ Drafts of recommendations and action plans. ▪ Project progress and monitoring reports. ▪ Interim and final reports. 	<p>Industry, government and other stakeholders are willing to engage.</p>

⁹ All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.

	<p>Basel Technical Guidelines for ULABs submitted to the Basel Secretariat.</p> <ul style="list-style-type: none"> Number of national action plans drafted. One draft national policy/strategy/regulation or plan includes a reference to lead. 	<p>for phasing out lead in paint or unsafe ULAB practices, especially in the informal sector.</p>	<p>and unsafe ULAB recovery, recycling and smelting practices drafted.</p> <ul style="list-style-type: none"> Project reports approved. One draft national policy/strategy/regulation or plan influenced to include a reference to lead. 		
<p>Outcome C.1 Local capacity built in the selected project countries to implement the recommended actions to phase out lead in paint and unsafe ULAB recovery, recycling and smelting practices,</p>	<ul style="list-style-type: none"> 4 ILMC benchmarking and other training workshops/webinars held. 60 individuals trained. Number of ULAB smelter site inspections completed; List available of companies interested to improve practices. One pilot remediation project completed. Measurable reduction in lead exposure risk at pilot remediation site. Number of backyard ULAB recyclers 	<p>Lack of capacity, knowledge, awareness, expertise and funding are hindering action to phase out lead in paint and unsafe ULAB recycling/ smelting practices.</p>	<ul style="list-style-type: none"> Technical assistance provided to industry and government agencies by ILMC Benchmarking Assessment Tool workshops and other trainings conducted in each project country. Government capacity built to implement actions and conduct lead remediation. List of companies interested to improve practices prepared. At least one pilot lead remediation project conducted. Exposure risk to lead at pilot remediation site reduced. 	<ul style="list-style-type: none"> Workshop attendance. Site inspections reports. Project progress and monitoring reports. Interim and final reports. 	<p>Industry, government and other stakeholders are willing to take action to phase out lead in paint and unsafe ULAB recycling/ smelting practices.</p>
<p>Outcome D.1 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.</p>	<ul style="list-style-type: none"> Two national project workshops held per country One regional project meeting held. No of times project results are presented at international/regional events. Number of high quality monitoring and evaluation documents prepared during project implementation. 	<ul style="list-style-type: none"> No ULAB supply chain and urban health risk assessment and exist or have been shared in the selected project countries. Best practices from USA and Europe, including the Basel Technical Guidelines for ESM of Lead are available to be shared. No monitoring and evaluation documents in baseline situation. 	<ul style="list-style-type: none"> Results, best practices and lessons-learned have been shared through workshops and meetings at the national, regional and international level. Project mid-term and final reports available. Audit and independent project evaluation reports available. 4 Quarterly Operational Reports submitted to UNDP 	<ul style="list-style-type: none"> Attendance lists, workshop/meeting agendas, materials and curriculum. Project progress and monitoring reports. Interim and final reports. 4 QORs available for each project year. APR/PIR available 	<p>Best practices, models, recommendations and lessons learned relating to the phase out lead in paint and unsound ULAB recycling/ practices are relevant to governments, industries and other stakeholders.</p>

			<p>each year</p> <ul style="list-style-type: none"> ▪ 1 annual APR/PIR submitted to UNDP each year. ▪ 1 Mid-term project review. M&E results and insights are applied to provide feedback to the project coordination process. ▪ 1 Final evaluation. ▪ MTE and FE must include a lessons learned section and a strategy for dissemination of project results. ▪ Lessons learned and best practices are accumulated, summarized and replicated at the country level. 	<p>for each project year.</p> <ul style="list-style-type: none"> ▪ Mid-Term Evaluation Report available. ▪ Lessons-learned from the project easily accessible and searchable on-line. ▪ Project related documentation, photos and videos posted on the project's website and Facebook page. ▪ Reports submitted to UNDP 	
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IV. TOTAL BUDGET AND WORKPLAN

Award ID:		Project ID(s):	
Award Title:	Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries in Indonesia and the Philippines		
Business Unit:			
Project Title:	Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries in Indonesia and the Philippines		
PIMS no.	5364		
Implementing Partner (Executing Agency)	Blacksmith Institute		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Total (USD)	Budget Notes
OUTCOME A.1: Scope of pollution and human health exposure risks due to current practices in ULAB recycling/ smelting evaluated and better understood.	Blacksmith Institute	62000	GEF	71200	International Consultants	\$9,500	\$9,500	\$19,000	1
				71300	Local Consultants	\$13,000	\$0	\$13,000	2
				71600	Travel	\$19,000	\$0	\$19,000	3
				72200	Equipment	\$23,000	\$0	\$23,000	4
				74500	Miscellaneous	\$18,000	\$3,000	\$21,000	5
Total Outcome A.1						\$82,500	\$12,500	\$95,000	
OUTCOME A.2: Scope of environmental health risk from lead in paint in residential homes is assessed in at least one urban area	Blacksmith Institute	62000	GEF	71200	International Consultants	\$15,400	\$0	\$15,400	6
				71300	Local Consultants	\$32,000	\$0	\$32,000	7
				71600	Travel	\$22,600	\$0	\$22,600	8
				74500	Miscellaneous	\$3,000	\$3,000	\$6,000	9
Total Outcome A.2						\$73,000	\$3,000	\$76,000	
OUTCOME A.3:	Blacksmith	62000	GEF	71200	International Consultants	\$6,500	\$0	\$6,500	10

ULAB supply chain assessment is completed for the Greater Jakarta region	Institute			71300	Local Consultants	\$28,000	\$0	\$28,000	11
				71600	Travel	\$10,500	\$0	\$10,500	12
				74500	Miscellaneous	\$3,000	\$3,000	\$6,000	13
				Total Outcome A.3		\$48,000	\$3,000	\$51,000	
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 are drafted and presented to relevant stakeholders	Blacksmith Institute	62000	GEF	71200	International Consultants	\$20,000	\$20,000	\$40,000	14
				71300	Local Consultants	\$23,000	\$23,000	\$46,000	15
				71600	International Travel and Per Diem	\$7,700	\$7,700	\$15,400	16
				72200	Equipment & Furniture	\$2,500	\$0	\$2,500	17
				75700	Training, Workshops and Conferences	\$6,000	\$6,000	\$12,000	18
				74500	Miscellaneous	\$7,000	\$7,000	\$14,000	19
				73100	Rental & Premises Maintenance	\$3,550	\$3,550	\$7,100	20
Total Outcome B.1		\$69,750	\$67,250	\$137,000					
OUTCOME C.1: Local capacity built to implement the recommended actions to phase out lead in paint and unsafe ULAB recovery, recycling and smelting practices	Blacksmith Institute	62000	GEF	71200	International Consultants	\$37,000	\$41,000	\$78,000	21
				71300	Local Consultants	\$16,500	\$16,500	\$33,000	22
				71600	International Travel	\$23,500	\$23,500	\$47,000	23
				73400	Rental and maintenance of other equipment	\$0	\$81,000	\$81,000	24
				72300	Materials & Goods	\$10,000	\$10,000	\$20,000	25
				75700	Training, Workshops and Conferences	\$11,000	\$11,000	\$22,000	26
				74500	Miscellaneous	\$3,000	\$3,000	\$6,000	27

				Total Outcome C.1		\$101,000	\$186,000	\$287,000	
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.	Blacksmith Institute	62000	GEF	71200	International Consultants	\$18,500	\$24,500	\$43,000	28
				71300	Local Consultants	\$6,000	\$8,000	\$14,000	29
				71600	International Travel	\$9,000	\$19,000	\$28,000	30
				75700	Training, Workshops and Conferences	\$3,000	\$15,000	\$18,000	31
				74500	Miscellaneous	\$7,000	\$7,000	\$14,000	32
					Total Outcome D.1		\$43,500	\$73,500	\$117,000
Project management unit	Blacksmith Institute	62000	GEF	71200	International Consultants	\$16,000	\$41,000	\$57,000	33
				71300	Local Consultants	\$1,000	\$1,000	\$2,000	34
				71600	Travel	\$6,000	\$3,000	\$9,000	35
				75700	Training, Workshops and Conferences	\$7,000	\$0	\$7,000	36
					Total Management		\$30,000	\$45,000	\$75,000
PROJECT TOTAL						\$447,750	\$390,250	\$838,000	

Summary of Funds:¹⁰

	Amount Year 1	Amount Year 2	Total
GEF	\$447,750	\$390,250	\$838,000
ADB	\$750,000	\$750,000	\$1,500,000
Government	\$272,500	\$272,500	\$545,000
Other (ILMC, HSBC, SAICM, WB, EC)	\$232,000	\$194,000	\$426,000
TOTAL	\$1,702,250	\$1,606,750	\$3,309,000

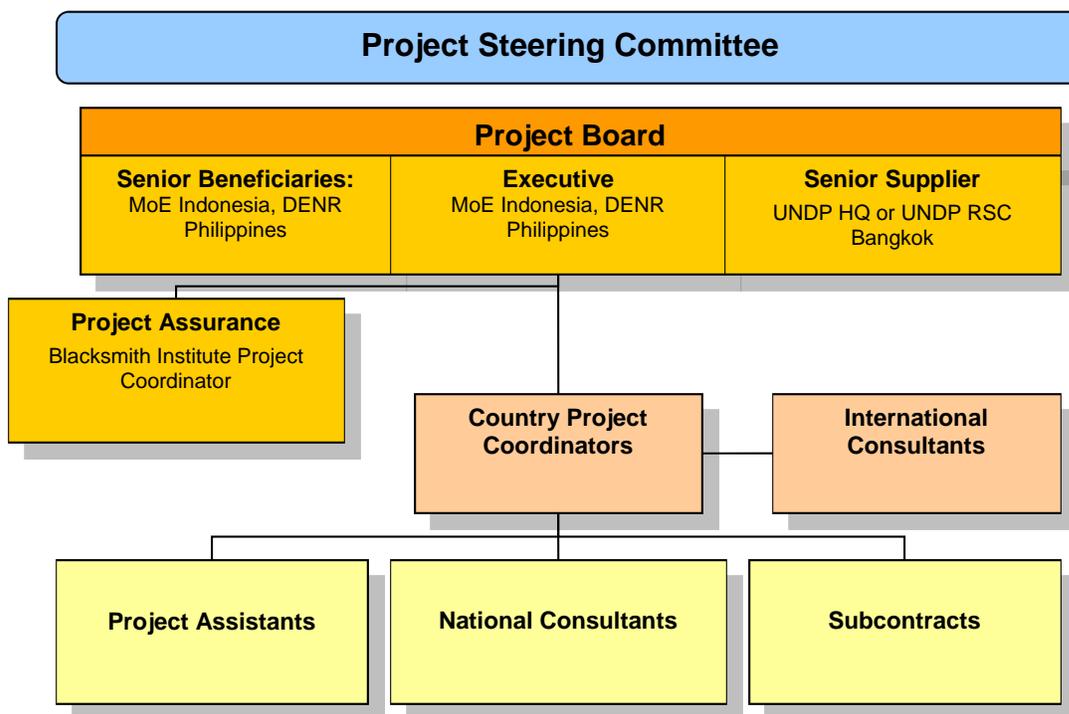
¹⁰ Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc...

Budget Notes

1	Component A. 1.1 and 1.2. A Tech Expert (2.5 working weeks per year) and TSIP Program Manager (3 working weeks per year) will review submitted data and sign off on quality of data collected.
2	Component A. 1.1 and 1.2. TSIP investigators (153 working days) will visit contaminated sites (avg. 3 days per site), conduct assessments, and input collected data into the database.
3	Component A. 1.1 and 1.2. Local travel and per diem for TSIP investigators to visit contaminated sites.
4	Component A. 1.1 and 1.2. XRF analyzer to enable on-site measurement of contamination levels.
5	Component A. 1.1 and 1.2. Communications costs, soil, water or other samples at contaminated sites, wire transfer fees and other miscellaneous expenses.
6	Component A.2.1 International technical and health tech experts (total 7 working weeks) to prep, conduct lead in paint residential assessment in Manila and prepare recommendations and report.
7	Component A. 2.1 Local toxicologist national experts (total 8 working weeks) to help conduct the residential assessment, prepare recommendations and report, organize local logistics to conduct the residential assessment, obtain government permits, engage communities to be surveyed and other relevant activities. National Ctry Coordinator Philippines (5 working weeks) to assist with preparing and conducting the residential assessment and share result, and draft recommendations. The national Ctry Coordinators for Indonesia (total 2.5 working weeks) to share results of residential study and translate into recommendations locally.
8	Component A. 2.1 Round trip airfare and per diems for two international technical and health Experts and 2 student assistants to travel to Manila from New York to conduct residential assessment. Local travel costs within Manila to visit residences and conduct the residential assessment.
9	Component A. 2.1 Communications costs, wire transfer fees, translation and other miscellaneous expenses associated with the assessment.
10	Component A. 3.1 International expert (3 working weeks) to assist team in Indonesia to prepare, conduct the supply chain assessment in Jakarta and compile report and recommendations.
11	Component A. 3.1 Two national supply chain experts (total 6 working weeks) will assist to prepare and carry out the supply chain assessment. The National Ctry Coordinator in Indonesia (9 working weeks) will be responsible for all local logistics, preparation of the supply chain assessment, assist in conducting it, and compiling report, as well as preparing recommendations. The national Country Coordinator for the Philippines (total 2.5 working weeks) to share results of residential study and translate into recommendations locally. National Program assistants (4 working weeks) will assist the national country coordinators to carry out the supply chain assessment.
12	Component A. 3.1 Round trip airfare and per diems for Tech Expert to travel to Indonesia to conduct the supply chain assessment and assess smelters. Local travel costs and per diems for national and international consultants within the greater Jakarta area to visit smelters and conduct the supply chain assessment.
13	Component A. 3.1 Communications costs, wire transfer fees, translation and other miscellaneous expenses associated with the supply chain assessment.
14	Component B. 1.1-1.6. International expert (6 working weeks per year) to assist country teams to convene working groups, make recommendations, draft national action plans. International technical experts (total 4 working weeks per year) on ULABs and lead in paint to make technical recommendations.
15	Component B. 1.1- 1.6. National Country Coordinators (total 10 working weeks per year) to convene working groups, make recommendations, draft national action plans. Program assistants (total 15 working weeks per year) will assist the national country coordinators in this process. Local experts (total 8 working weeks per year), policy and Sr. Advisors (total 10 working weeks per year) to provide senior technical and policy advice.
16	Component B. 1.1- 1.6. International round trip airfare and per diem for international experts to travel to each country each year. Local travel for international and national consultants within project area.
17	Component B. 1.1 - 1.6. Three laptop computers.
18	Component B. 1.1 -1.6. Working group meetings (4 per country), meeting room rental and other logistics (no travel) to discuss report findings, recommendations, and draft national action plans.
19	Component B. 1.1 - 1.6. Communications costs, wire transfer fees, translation, printing and other miscellaneous expenses associated with the working groups and national action plans.
20	Component B. 1.1 - 1.6. Local office rental
21	Component C.1.1 - 1.5. International experts (total 6 working weeks per year) to assist country teams to build local capacity to implement recommended actions, including developing and implementing pilot remediation projects. Tech Experts (total 9 working weeks per year) to provide experience, technical guidance for implementation of actions, training and local capacity building webinars/workshops, and pilot remediation development and implementation.
22	Component C. 1.1- 1.5. National Country Coordinators (total 9 working weeks) to organizing and conduct training and capacity building activities, as well as organize and manage pilot remediation projects. Program assistants (total 5 working weeks per year) will assist the national country coordinators in this process. Health trainers, communication specialist, and other local

	tech experts (total 40 working weeks) will provide technical assistance for the training and capacity building activities, and pilot remediation projects.
23	Component C. 1.1- 1.5. International round trip airfare and per diem for international technical experts to travel to each country. Local travel for international and national consultants within project area and to and from pilot remediation sites.
24	Component C. 1.1- 1.5. Pilot remediation heavy equipment rental, other large costs that cannot be determined ahead of time as the site has yet to be selected, as well as supplies for pilot remediation projects, which may include personal protective equipment, transportation containers or other supplies.
25	Component C. 1.1- 1.5. Soil and water samples, capacity building and health campaign/community awareness raising materials.
26	Component C. 1.1- 1.5. Pilot site stakeholder meetings, and training/capacity building webinars/workshops (does not include travel or stipend/per diems for any participants).
27	Component C. 1.1- 1.5. Communications costs, wire transfer fees, translation, printing and other miscellaneous expenses.
28	Component D.1.1 -1.3. International experts (6 working weeks per year) and technical experts (total 2 working weeks) will assist the country teams to analyze project results, extract best practices and share lessons learned. International communication expert (3 working weeks per year) will help disseminate lessons learned and reports internationally.
29	Component D. 1.1 - 1.3 National Country Coordinators (2 working weeks per year) to analyze project results, extract best practices and share lessons learned. Program assistants (total 3 working weeks per year) will assist the national country coordinators in this process. Communication specialists, and other local tech experts (total 12 working weeks) will provide technical assistance for measuring and analyzing results, extracting best practices and sharing lessons learned.
30	Component D. 1.1-1.3. International round trip airfare and per diem for international technical experts to travel to each country, and airfare and per diems for 10 participants to attend a regional meeting in year 2. Per diems for national meetings for 10 participants per country per year.
31	Component D.1.1-1.3. A national meeting will be held in each country per year. In attendance will be all relevant government agencies, industry and community representatives, academics and other stakeholders (~20-30 participants per meeting). The meetings will present activities from each year, results, next steps, recommendations and solidify the national action plan process. One regional meeting will be held at the project end for all participating countries and representative (10 participants per country; 25-35 total).
32	Component D.1.1 -1.3. Communications costs, wire transfer fees, translation, design, printing and dissemination of reports, and other miscellaneous expenses for the national and regional meetings.
33	International consultants to undertake administration and financial management, mid-term and final review. International consultants to undertake independent evaluation and financial audit
34	National consultants to support the project mid-term review and project evaluation.
35	M&E travel, Project inception workshop travel.
36	Inception workshop costs.

V. MANAGEMENT ARRANGEMENTS



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.

VI. 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 Management 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.

Audit

The project will be audited following UNDP Financial Regulations and Rules and applicable Audit policies.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

M& E workplan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> ▪ 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.	<ul style="list-style-type: none"> ▪ 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 <i>output and implementation</i>	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ Project Director and team ▪ UNDP CO ▪ UNDP RTA ▪ UNDP MPU 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Project Director and team 	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ Project Director and team ▪ UNDP CO ▪ local consultant 	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project manager and team 	Indicative cost per year: 5,000	Once throughout the project's duration
Visits to field sites	<ul style="list-style-type: none"> ▪ 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 (+/- 5% of total budget)	

VII. LEGAL CONTEXT

This document together with the CPAP signed by the Government of the Republic of Indonesia and UNDP, the Government of the Philippines and UNDP and which are incorporated by reference constitute together a Project Document as referred to in the SBAA11 for these respective countries and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

Multi country and regional project

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAA's for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the agency (Blacksmith Institute) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

¹¹ Partnership Framework Agreement between the Government of the Republic of Indonesia and the UNDP (signed on 28 September 2012); The Standard Basic Assistance Agreement (SBAA), between the Government of the Philippines and UNDP signed on 21 July 1977, provided an early framework for UNDP's work in the country as well as the on-going legal basis for UNDP's operations in the Philippines.

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

ANNEX I RISK ANALYSIS

Use the standard UNDP Atlas [Risk Log template](#). For UNDP GEF projects in particular, please outline the risk management measures including improving resilience to climate change that the project proposes to undertake.

ANNEX II AGREEMENTS

Any additional agreements, such as cost sharing agreements, **project cooperation agreements** signed with NGOs¹² (where the NGO is designated as the “executing entity”, letters of financial commitments, GEF OFP letter, GEF PIFs and other templates for all project types) should be attached.

ANNEX III TERMS OF REFERENCE

TOR for key project personnel should be developed and attached.

ANNEX IV CAPACITY ASSESSMENT

Results of capacity assessments of Implementing Partner (including HACT Micro Assessment)

¹² For GEF projects, the agreement with any NGO pre-selected to be the main contractor should include the rationale for having pre-selected that NGO.