



**MINISTRY OF FINANCE OF THE REPUBLIC OF INDONESIA  
DIRECTORATE GENERAL OF BUDGET FINANCING AND RISK MANAGEMENT  
DIRECTORATE OF LOANS AND GRANTS**

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Number : S- 282 /PR.2/2017  
Attachment : One Original Project Document

27 March 2017

Mr. Christophe Bahuet  
Country Director  
United Nations Development Programme  
Menara Thamrin 8th Floor,  
Jl. MH. Thamrin, Jakarta

Re : Signing Amendment of Project Document of *Reducing Release of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia.*

Dear Mr. Bahuet,

Please find attached herewith the Amendment of Project Document of the above-mentioned project which has been signed by Director General of Budget Financing and Risk Management as the authorized official of the Ministry of Finance.

Thank you for your kind attention and cooperation.

Yours Sincerely,

  
Ayu Sukorini  
Director

Cc:

1. Director General of Budget Financing and Risk Management, MoF
2. Secretary General of Ministry of Industry;
3. Director of Multilateral Foreign Funding, Bappenas;

## Amendment to the Project Document

ATLAS Award ID: 00083160  
ATLAS Project ID: 00091789  
PIMS # 5073  
Amendment No. 01

Reference is hereby made to the Project Document (hereinafter referred to as "Prodoc") titled **Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia** signed by (1) Secretary General of Ministry of Industry, (2) Country Director of UNDP CO Indonesia, and (3) Director General of Budget Financing and Risk Management, Ministry of Finance on 08 March 2016.

In accordance with the result of a meeting held in the Ministry of Finance attended by the representatives of Ministry of Finance, Ministry of Industry, BAPPENAS and UNDP on 07 December 2016, all Parties agreed with the revision of Chapter **V. Management Arrangement** of the prodoc.

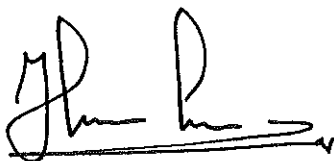
The Parties agreed with the following Management Arrangements:

### Implementing Partner:

At the national level, the Implementing Partner is the Ministry of Industry. The Secretary General of the Ministry of Industry appoints the Head of Industrial Research and Development Agency as National Project Director (NPD) and Head of Research and Development Center of Green Industry and Environment as the First Deputy National Project Director (DNPD) and the Secretary of Director General of Chemical, Textile and Various Industry as the Second Deputy National Project Director (DNPD).

All other terms and conditions of the Prodoc, except as amended herein, shall remain unchanged and shall continue to be in effect.

IN WITNESS WHEREOF, the relevant Parties have executed this Amendment to the Prodoc.



Haris Munandar N.  
Act. Secretary General,  
Ministry of Industry



Christophe Bahuet  
Country Director,  
UNDP CO Indonesia



Robert Pakpahan  
Director General of Budget  
Financing and Risk  
Management,  
Ministry of Finance  
Date:

Date:

Date: *15 March 2017,*

**UNITED NATIONS DEVELOPMENT PROGRAMME**  
**Country: INDONESIA**

**PROJECT DOCUMENT**

<b>Project Title:</b>	Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia
<b>National Priority:</b>	To realize economic independence by accelerating domestic economic strategic sectors (Priority #7)
<b>UNPDF Outcome(s):</b>	By 2020, Indonesia is sustainably managing its natural resources, on land and at sea, with an increased resilience to the effects of climate change, disasters and other shocks (UNPDF 2016-2020 Outcome #3)
<b>UNDP Strategic Plan Outcome:</b>	Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded (UNDP Strategic Plan 2014-2017 Outcome 1)
<b>Expected CP Output:</b>	Systems strengthened to properly manage, dispose and phase out hazardous chemicals (UNDP CP 2016-2020 Output #3.5)
<b>Implementing Partner:</b>	Ministry of Industry, Indonesia
<b>Responsible Parties:</b>	United Nations Development Programme, Ministry of Industry

**Brief Description**

In order to tackle environmental challenges, on 28 September 2009 Indonesia ratified the Stockholm Convention on Persistent Organic Pollutants (POPs). This project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce releases of Polybrominated Diphenyl Ethers (PBDEs), toxic flame retardant, and Dioxin and Furans (PCDD/Fs), Unintentional POPs (UPOPs) by-products, as well as strengthening the sound management of chemicals and waste in order to protect human health and the environment which will result in social and economic benefits such a reduced burden of disease and reduced health care and environmental remediation costs.

The project will support Indonesia's plastics industry and recyclers in ensuring that no banned PBDEs are used or recycled into new manufactured articles. In addition, environmentally safe and sound operations of municipal and community waste management will be supported in order to reduce harmful releases of PBDEs and UPOPs. While the core objective of the project is reducing releases of harmful chemicals, it brings additional benefits in terms of socio-economic and climate change, as it has two activity areas that are inherently climate beneficial i.e. increased recycling and material efficiency and better waste management. The project is structured in the following outputs: (1) strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices; (2) reducing or eliminating the importation and use of PBDE in plastics manufacturing; (3) reducing UPOPs and PBDEs from unsound plastics recycling; (4) reducing releases of UPOPs and PBDEs from unsound plastics disposal practices; and (5) Monitoring, Learning, Adaptive Feedback, Outreach and Evaluation.

Country Programme Period:	2016-2020	Total Resources Required <sup>1</sup> :	USD 4,030,000
Strategic Plan Output (2014-2017):	SP Output 1.3. <sup>2</sup>	Total Allocated Resources:	USD 4,030,000
ATLAS Award ID:	00083160	• UNDP:	USD 40,000
ATLAS Project ID:	00091789	• Donor (GEF):	USD 3,990,000
PIMS #:	5073	In-kind contributions:	
Start Date:	January 2016	1. Ministry of Industry:	USD 5,000,000
End Date:	30 December 2019	2. APHINDO:	USD 12,000,000

<sup>1</sup> That will be directly managed by UNDP as reflected in the Total Budget and Work Plan matrix.

<sup>2</sup> SP Output 1.3. Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste

PAC Meeting Date:	
Management Arrangement:	NIM COSS

3. Perum Jasa Tirta:	USD 1,525,188
4. Konsorsium Lingkungan Hidup:	USD 166,406

Agreed by :



Syarif Hidayat  
Secretary General, Ministry of Industry  
Date :

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Agreed by :



Christophe Bahuet  
Country Director of UNDP CO Indonesia  
Date :

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Agreed by :



Robert Pakpahan  
Director General of Budget Financing and Risk Management, Ministry of Finance  
Date : 08 March 2016

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## List of Acronyms

<b>3R</b>	Reduce, Reuse and Recycle
<b>4R</b>	Reduce, Reuse, Recycle and Recovery
<b>ACFTA</b>	ASEAN – China Free Trade Agreement
<b>ADIPURA</b>	An Award for a City in Indonesia able to perform in its cleanliness and environmental management. The programme was started as of 1986.
<b>AEC</b>	ASEAN Economic Community
<b>AMDAL</b>	<i>Analisa mengenai Dampak Lingkungan</i> (Environmental Impact Assessment)
<b>APHINDO</b>	<i>Asosiasi Industri Plastik Hilir Indonesia</i> (Association of Plastic Converting Industry in Indonesia)
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>B3</b>	<i>Bahan Berbahaya dan Beracun</i> (Toxic and Hazardous Substances)
<b>Bappedal</b>	<i>Badan Pengendalian Dampak Lingkungan</i> (Environmental Impact Control Agency)
<b>BAT/BEP</b>	Best Available Techniques/Best Environment Practices
<b>BFRs</b>	Brominated Flame Retardants
<b>BPOM</b>	<i>Badan Pengawas Obat dan Makanan</i> (National Agency of Drugs and Foods Control)
<b>BSN</b>	<i>Badan Standard Nasional</i> (National Standard Agency)
<b>CoC</b>	Certificate of Conformity
<b>CRT</b>	Cathode Ray Tube
<b>CSR</b>	Corporate Social Responsibility
<b>DKI</b>	<i>Daerah Khusus Ibukota</i> (Capital Special Region)
<b>EIA</b>	Environmental Impact Assessment
<b>ELV</b>	End of Life Vehicles
<b>EPR</b>	Extended Producer Responsibility
<b>Etc.</b>	Et cetera
<b>EU</b>	European Union
<b>FDS</b>	Final Disposal Sites
<b>FTA</b>	Free Trade Agreement
<b>GEF</b>	Global Environment Facility
<b>GEF STAP</b>	GEF Scientific and Technical Advisory Panel
<b>GIATPI</b>	<i>Gabungan Industri Aneka Tenun Plastik Indonesia</i> (Indonesia Woven Polyolefin Manufacturers Association)
<b>GOI</b>	Government of Indonesia
<b>GR</b>	Government Regulation
<b>HCB</b>	Hexachlorobenzene
<b>HZW</b>	Hazardous Waste
<b>ICT</b>	Information and Communication Technology
<b>INApLas</b>	<i>Asosiasi Industri, Olefin, Aromatik dan Plastik Indonesia</i> (Indonesian Olefin, Aromatic and Plastic Association)
<b>Jabodetabek</b>	Jakarta, Bogor, Depok, Tangerang and Bekasi (Jakarta and its vicinity area)
<b>Kepmen</b>	<i>Keputusan Menteri</i> (The Decree of Minister)
<b>Keputusan</b>	Decree
<b>KLHS</b>	<i>Kajian Lingkungan Hidup Strategis</i>

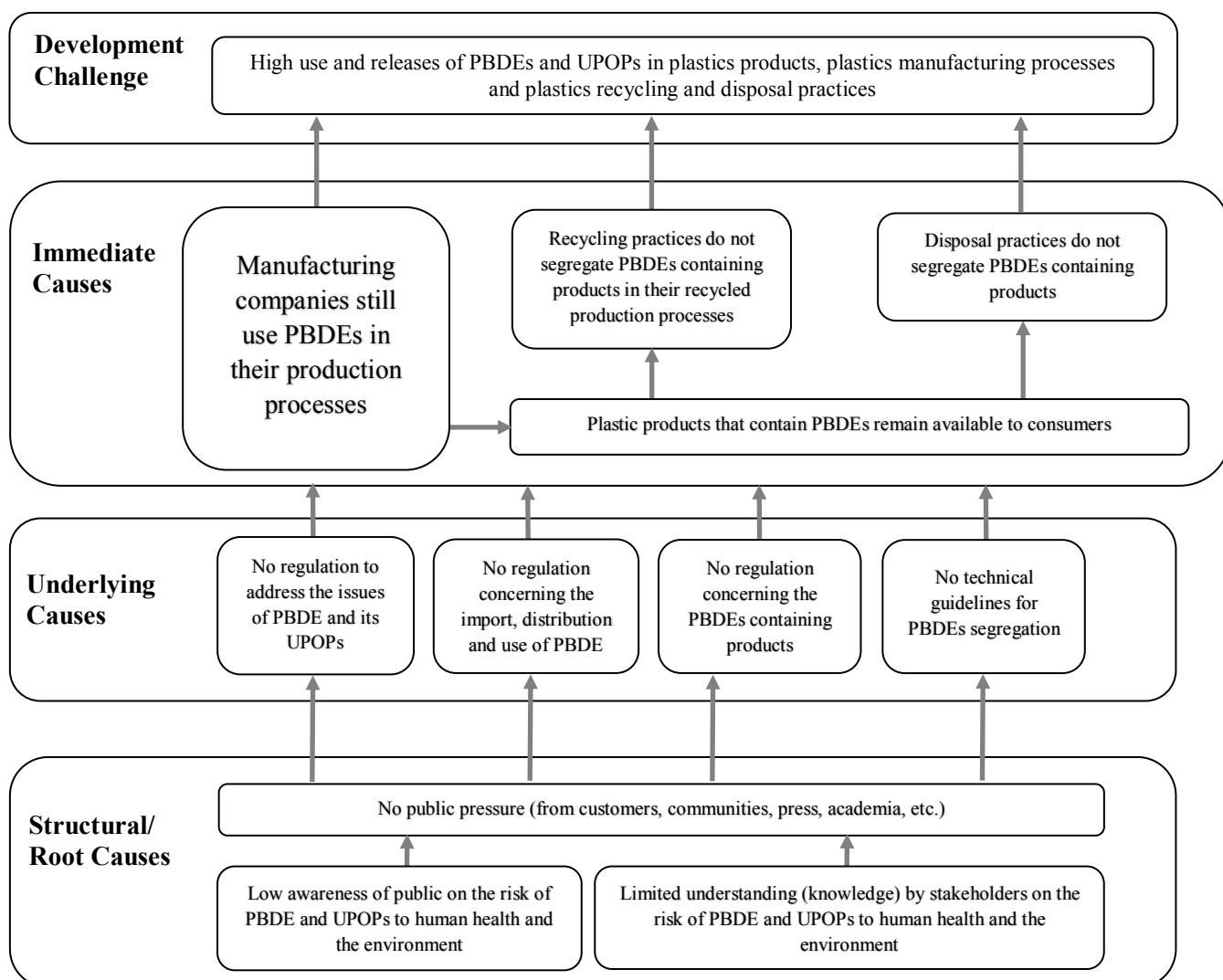
	(Strategic Environmental Assessment)
<b>LB3</b>	<i>Limbah Bahan Berbahaya dan Beracun</i> (Toxic and Hazardous Wastes)
<b>LCD</b>	Liquid Crystal Display
<b>LDPE</b>	Low-Density Polyethylene
<b>LoS</b>	Level of Service
<b>MET</b>	Metric Ton or MT or Mton
<b>MOF</b>	Ministry of Finance
<b>MOH</b>	Ministry of Health
<b>MOI</b>	Ministry of Industry
<b>MP3EI</b>	<i>Master Plan Percepatan Pembangunan Ekonomi Indonesia</i> (Master Plan for Acceleration and Expansion of Indonesia's Economic Development)
<b>MSW</b>	Municipal Solid Waste
<b>MSWM</b>	Municipal Solid Waste Management
<b>My Darling</b>	<i>Masyarakat Sadar Lingkungan</i> (communities who are aware of their environment)
<b>NGO</b>	Non-Government Organization
<b>NIP</b>	National Implementation Plan (it refers to National Implementation Plan on Elimination and Reduction of Persistent Organic Pollutants in Indonesia)
<b>Nr.</b>	Number
<b>Packindo</b>	Indonesian Packaging Federation
<b>PBDEs</b>	Polybrominated Diphenyl Ethers
<b>PCBs</b>	Polychlorinated Biphenyl
<b>PCDD/Fs</b>	Dioxins and Furans
<b>PET</b>	Polyethylene Terephthalate
<b>POPs</b>	Persistent Organic Pollutants
<b>PP</b>	Polypropylene
<b>PRO</b>	Producer Responsibility Organization
<b>PUR</b>	Polyurethane
<b>PVC</b>	Polyvinylchloride
<b>RCU</b>	Regional Coordinating Unit
<b>REACH</b>	Registration, Evaluation, Authorization and Restriction of Chemicals
<b>RoHS</b>	Restriction on the use of certain Hazardous Substances
<b>RT/RWP</b>	<i>Rencana Tata Ruang dan Wilayah Propinsi</i> (Provincial Spatial Plan)
<b>SAICM-QSP TF</b>	Strategic Approach to International Chemicals Management - Quick Start Programme Trust Fund
<b>SGS</b>	SGS S.A. (formerly <i>Société Générale de Surveillance</i> ) is a multinational company headquartered in Geneva, Switzerland, which provides inspection, verification, testing and certification services
<b>SWM</b>	Solid Waste Management
<b>TDS</b>	Temporary Disposal Sites
<b>TOR</b>	Terms of Reference
<b>TV</b>	Television
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environment Programme
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>UPOPs</b>	Unintentionally produced Persistent Organic Pollutants
<b>US</b>	United States (of America)
<b>USA</b>	United States of America
<b>USD</b>	United States of America Dollar
<b>USEPA</b>	United States Environmental Protection Agency
<b>WEEE</b>	Waste Electrical and Electronic Equipment
<b>WHO</b>	World Health Organization





## I. SITUATION ANALYSIS

Figure 1: Problem Tree



Indonesia is committed to addressing the threats posed by Persistent Organic Pollutants (POPs) to human health and the environment. The country ratified the Stockholm Convention on 28 September 2009. Indonesia published its “*National Implementation Plan (NIP) on the Elimination and Reduction of POPs*” on 29 July 2008. The NIP is for the initial 12 POPs including Dioxin and Furans (PCDDs/Fs) and proposes urgent actions with respect to legislation, institutional capacity and human resources in order to meet Indonesia’s obligations to the Stockholm Convention, focusing on three major categories: (i) POPs Pesticides, (ii) PCBs and Equipment; and (iii) Unintentional POPs (UPOPs). With respect to UPOPs which include PCDDs/Fs, the NIP highlights the following national priorities and requirements:

- (1) Develop accredited laboratories capable to analyze UPOPs.
- (2) Determine an accurate baseline and support the ongoing monitoring of UPOPs releases.
- (3) Apply BAT/BEP for source categories (Part II and III of Annex C).
- (4) Expedite and improve the Blue Sky Program.
- (5) Improve POPs related legislation.
- (6) Increase public awareness.

The National Action Plan proposes the following Measures to Reduce Releases from Unintentional Production (Article 5):

- (1) Preparing UPOPs regulations, including regulatory limit for air emission;
- (2) Quantitative measurement of PCDDs/Fs releases in industrial and populated areas to be used as baseline for efforts in reducing releases;
- (3) Programme for annual report on PCDDs/Fs release by public and private sectors potential to release UPOPs;
- (4) Expansion of Blue Sky Program in industrial and populated areas;
- (5) Implementation of BAT/BEP in various sectors, including preparation of BEP guidelines and provision of training on BEP;
- (6) Increasing public awareness and using alternative technology/processing to inhibit open burning (domestic waste, shifting cultivation, wood burning in households);
- (7) Using alternative materials, products and process or the modified ones;
- (8) Research related to power generating and transportation;
- (9) Education, training, and awareness raising;
- (10) Developing strategy for pollution prevention that will give recommended alternatives as equipment/facility to minimize pollutants;
- (11) Determination on mass concentration of PCDDs/Fs, HCB, and PCBs;

Polybrominated Diphenyl Ethers (PBDEs) were one of the “new” nine POPs which were listed in the 2009 amendment of the Stockholm Convention, and therefore were not included in the first NIP. PBDEs have been used as a flame retardant in many plastic products. Improper management of plastics recycling and waste will release PBDEs as well as PCDDs/Fs (UPOPs).

In Indonesia, the generation of plastic waste is growing very fast and subsequently becoming an increasing concern. Plastic is relatively cheap and versatile with many industrial applications, leading to exponential growth over the past decades in the country. Plastic industry is one of the primary industries in the national development policy 2010-2014. It is estimated to remain one of the primary industries between 2015 and 2019. The local plastics market expanded by 22.47% in 2011, in spite of the global economic slowdown. It continues growing although at a slower pace, from 7.75% to 3.48 million MET, in 2012. Indonesia’s per capita consumption of plastics goods remains low at 10 kg annually compared to 56 kg in Thailand and 45 kg in Malaysia, leaving plenty of scope for future growth.<sup>3</sup>

The Indonesian Olefin, Aromatic and Plastic Industry Association (INApLas) estimates that 85% of all plastic products consumed in Indonesia are produced locally with imports making up the remaining 15% or 523,800 MET. The new finished product categories within the revised regulations constitute 30% of Indonesia’s total plastic imports with the majority of such products being produced by domestic manufacturers (INApLas). In total, some 2,000 companies have plastics as their main line of business. In 2011, the plastics industry employed about 350,000 workers.

It is estimated that a total of 38.5 million tons of solid waste is generated annually by the 232 million inhabitants in Indonesia (450 gram per person per day), of which 21.2 million tons are on Java. In general, 40.1 million people, who inhabit 26 biggest cities in Indonesia, generate an estimate of 14.1 million tons per annum. The people in DKI Jakarta generate about 2.2 million tons per annum. The municipal waste is composed of 62 percent of mainly organic waste, 14 percent plastics, 9 percent paper, 2 percent glass, 2 percent rubber and leather, 2 percent metals and 13 percent of other waste types. The amount of plastics in the waste flow is 5.39 million tons nationally per annum.

Recycled plastics producers are stepping in to meet the country’s growing demand for plastic products and also offering environmentally sustainable solutions. Referring to the above analysis, in Jakarta

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<sup>3</sup> Global Business Indonesia. 2013. Indonesia’s Plastic and Packaging Industry. Detailed information available at: [http://www.gbgingonesia.com/en/manufacturing/article/2012/indonesia\\_s\\_plastic\\_and\\_packaging\\_industry.php](http://www.gbgingonesia.com/en/manufacturing/article/2012/indonesia_s_plastic_and_packaging_industry.php)

alone, 6,000 tons of waste are produced daily and plastics waste alone makes up 14 percent (or 840 MET)<sup>4</sup>, proving an ample source for recyclable plastics material. The practice of recycling is still in its infancy due to a lack of supporting infrastructure, leaving the sector mainly in the hands of the informal sector, generally low-income population including women and children, and therefore lacking economies of scale.

The Ministry of Industry (MOI) felt that challenges with respect to PBDEs currently being faced by the Indonesian plastics manufacturing industry, large and medium scale plastics recycling entities, as well as municipalities required urgent attention. The GOI and UNDP organized three workshops on PBDEs and UPOPs. The first was conducted in August 2010 on “Removal of barriers for Sustainable Management and Reduction of PBDEs, Dioxins and Furans.” The second was conducted in December 2012 on “The Reduction of Releases of PBDEs and UPOPs from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia.” The third was “Inception Workshop on Reducing Releases of Polybrominated Diphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia” conducted in Jakarta on 31 October 2013 and Surabaya on 14 November 2013. The finding was that most stakeholders had limited knowledge on PBDEs. Based on the discussion at these workshops and to address the new POPs management challenges, the GOI initiated this current project.

### **Baseline Project**

The baseline projects are substantively defined by the currently ongoing and planned activities and scope pertaining to the management and control of hazardous and toxic materials (B3) and their wastes (LB3). Indonesia has a generally well developed legal/regulatory framework. The Indonesian Law No. 23/1997 regarding Environment Management authorizes the Ministry of Environment (MOE) to manage the environment at the central and regional levels, including the development of policies pertaining to natural resource use, controlling activities that cause social implication, including the management and control of hazardous and toxic materials (B3) and wastes (LB3). To implement the law, GR (Government Regulation) No. 74/2001 regarding the management of B3 has been enacted, regulating the ban of 10 POPs (aldrin, dieldrin, chlordane, DDT, heptachlor, hepox, endrin, toxaphene, HCBs and PCBs). In terms of monitoring, Ministry of Environment has been conducting periodic monitoring on the quality of environment due to possible contamination of POPs substances. In addition, National Agency of Drug and Food Control has been actively monitoring and controlling foods from the contamination of “unwanted substances,” including POPs and UPOPs.

The following elaborates on the baseline projects by the project outputs:

#### **1. Institutional/ regulatory capacity and framework related to PBDEs and UPOPs:**

*PBDEs:* No national regulation or policy concerning the usage, trade and monitoring of PBDEs are in place.

*UPOPs:* Certain releases of PCDDs/Fs have been regulated through Ministerial regulation Kepmen No. 13/1995, applying to rotary kilns when used as incinerators. In reality, however, not all incinerators are monitored due to the high cost of monitoring and analysis. Legislation on the prevention, control, monitoring and reduction of UPOPs, including regulatory limits for PCDDs/Fs (food and other products, air, water, soil, and in residues) needs urgent development. Industries are required to monitor UPOPs releases during applications processes for operational permits. However, once permits are granted no regular monitoring is required.

*Municipal and Industrial Solid Waste Management:* The GOI has been very committed to solid waste management during the past few years and has set targets for 2014 and 2019 to significantly reduce

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<sup>4</sup> Op.cit.

waste volumes, increase recycling and overall improve SWM country wide. Relevant policies and regulations are listed below under “3 - Baseline Policy Instruments and legislation pertaining to MSWM.” Interventions are needed to support the GOI in developing and implementing regulations and other measures to support the above policy.

Even though overall legal/regulatory framework for management and control of hazardous and toxic chemicals and wastes exist in Indonesia, still further guidance or rules as well as coordination at different institutional levels are necessary to ensure the sustainability of sound chemicals management and control.

## **2. Plastic manufacturing sector:**

In plastic manufacturing sector, the Government of Indonesia has undertaken the following measures for environmentally sound operations and management.

- *Economy Strategy*: As part of its sustainable development plan (2005-2025), the GoI is carrying out a green economy strategy (which is supported by programmes on efficiency and renewable energy usage, clean technology support and waste management, among others). Specific policies include subsidies for industries as well as incentives to promote environmentally friendly products.
- “*Blue Sky Program*” (since 1996), a GoI clean air programme to control air pollutants in urban areas. Continuation of supporting to BAT/BEP innovation under MOI Green Industry Award (since 2009). In 2010, 9 industries were awarded out of the 68 evaluated. This is under the Government Regulation No.28/2008 on the National Industry Guidelines, for industries to consider 4R (reduce, reuse, recycle and recovery), and sound management of toxic and hazardous substances including POPs.
- With support of WHO and the SAICM QSP TF (2011), Indonesia has strengthened its national capacity for the sound management of priority industrial carcinogens.
- Continuation to promote awareness challenges and policy development related to PBDEs, following the two awareness raising workshops organised by the MOI and UNDP: Removal of Barriers for Sustainable Management and Reduction of PBDEs and PBDDs/PBDFs (August 2010) and Reduction of Releases of PBDEs and UPOPs from unsound waste management and recycling practices and the manufacturing of plastics in Indonesia (December 2011).
- *Financial Incentives*: The GoI supports the private sector by providing investments for Corporate Social Responsibility Programmes, such as equipment investments for environmentally sound operations and management.
- Implementation, further development of guidance and enforcement Decree of Minister of Industry and Trade No.274/MPP/Kep/6/99 on the Restriction and Monitoring on the Import, Distribution and Production of Dioxin Contaminated Goods

As above, several initiatives at the national level are contributing to the creation of an enabling environment, particularly for reducing UPOPs. However, technical expertise and financial resource in dealing with chemicals management in the government and industry are still lacking, and therefore need to be assisted.

## **3. Plastic recycling sector:**

In plastic recycling sector, the Government of Indonesia has undertaken the following measures for environmentally sound operations and management.

- In 2007, GoI started and has been continuously implementing and widening a Reuse, Reduce, Recycle (3R) programme at communal scale which has been initiated in 33 provinces to support waste segregation (paper, plastics, glass, metal), composting and recycling. Targets of interest to the proposed project: 2014 - recycle 75% of plastics, utilize 30% of currently unrecyclable

plastics, compost 20-30% of organic MSW; recycle 30% of metal, glass and paper with the ultimate objective to achieve a 20-30% reduction in waste volumes.

- Private sector investments and development of processes for PDBE identification and management as well as UPOPs release reduction at major recycling plants
- Formulation of a regulation and policy on electronic waste treatment and disposal. The e-waste regulation will focus on distinguishing between e-waste and second-hand equipment as well as management approaches through i) Extended Producer Responsibility; ii) national and provincial government participation; iii) economic instruments (incentives and disincentives); and the 3R programme.
- Implementation and further development of guidance and enforcement of Ministry of Trade's Decree Number 63/M-DAG/PER/12/2009 concerning Importation of Used Products for Reconditioning, Remanufacturing or Re-use (*Importir Producers* or Producer Importers).
- Implementation and further development of guidance and enforcement of Ministry of Trade's Decree Number 39/M-DAG/PER/9/2009 concerning the Importation of Non Hazardous Waste (Scrap Waste).

While Indonesia has significantly been increasing the production and consumption of plastic products and recycled plastic products, the practice of recycling is still in its infancy. The country still requires support to create appropriate infrastructure as well as to increase awareness on environmentally safe and sound recycling operations.

#### **4. Plastic disposal sector:**

In plastics disposal sector, the Government of Indonesia has undertaken the following measures to ensure environmentally sound operations and management.

- Further expansion on the Reuse, Reduce, Recycle (3R) programme and reduction of uncontrolled burning of waste through the improvement MSW disposal sites in 240 cities; and the development of landfill gas projects in 24 major cities. The 2014 targets are to recycle 15 million tons of hazardous waste and increase the rate of hazardous waste 3R by 20% per year.
- Investments in BAT/BEP compliant final disposal for PBDE containing separated waste fractions by regional, municipal and private waste processors.
- Several large cities have ongoing initiatives to support methane gas recovery for energy generation or reduce methane generation through aerobic composting. To measure the open burning of wastes at landfill sites and thus indirectly reduce UPOPs emissions: Temesi Gianyar (Bali); Bantar Gebang (Jakarta); Suwung Sarbagita: Sunter and Cakung (Jakarta); Bekasi.

#### Baseline Policy Instruments and legislation pertaining to MSWM

- Government Regulation No.18/1999 to manage the waste of hazardous and toxic substance including POPs
- Foundational policy for 3R programme (Act No. 18, 2008) on solid waste management.
- Environmental Protection and Management (Act No. 32, 2009).
- Government Regulation No. 18/2009 on the Management of Hazardous Waste.
- MOE Decree No. 1/2009 on ADIPURA, award offered to city mayors for clean cities.
- Minister of Public Works' Decree No. 21/2006 on National Policy and Strategy for SWM.
- Minister of Environment's Decree No. 05/2012 to regulate environmental impact analysis, including the importance of appropriate incineration/ burning activities to control potential release of UPOPs.

The implementation, enforcement and monitoring of above and other related policies and programmes depend mostly on districts and municipalities that often lack technical expertise and financial resource on the environmentally safe and sound management of waste, particularly hazardous waste, including POPs. Further assistance in these areas is therefore needed.

## Barrier Analysis

Although there are a number of initiatives to address the issues of POPs at the national level, the following have been identified as barriers that prevent the country from implementing sound management of POPs, including PBDE and its UPOPs. These barriers, depending on their nature, cut across various components relating to regulations, awareness, capacity building, technical project interventions and monitoring and institutional mechanisms.

- Limited regulatory framework: Despite recent and ongoing activities to strengthen the legal framework of chemicals, including POPs, the regulations are not at the level able to underpin a sustainable POPs management. The regulations to address the issues of PBDEs are totally absent. There has been no standard or guidelines on such substance. Furthermore, while there may be a possibility to develop and implement Extended Producer Responsibility (EPR) schemes, there has been no specific guidance or rules that exist to control the substance.
- Insufficient systemic and institutional capacity: there has been lack of coordination, limited cross-sector management, inadequate system of sound waste and chemicals management, and limited collaboration between government authorities, private sector (service providers), and other stakeholders (such as waste generators). Besides the coordination of national and local institutions regarding POPs management is still challenging.
- Professional and Technical limitations: Sound chemicals management approaches and schemes are considered new to Indonesia. There is a lack of expertise and experience in dealing with chemicals and POPs management (from regulatory development and administrative aspects). There is also a lack of technical capacity (such as national laboratories) to properly measure and monitor POPs and UPOPs. Moreover, the manufacturing and recycling sectors, waste management operators and authorities also have lack technical understanding on POPs.
- Financial limitations: The large-scale manufacturing industries will have sufficient financial resources to set up sophisticated quality control schemes for both incoming and outgoing product streams. These industries will not be seriously affected if they have to comply with certain standard of sound chemical management established by the government. On the contrary there are many small-scale manufacturers – especially plastic recyclers – whose business activities will be threatened if they have to face the high cost of investment needed to comply with the standards established by the government. As the consequence, it is the obligation of the government to facilitate the establishment of appropriate (applicable and affordable) system of separation for these small-scale recycling enterprises that will not jeopardize their business.

In the meantime, Indonesian Cities (Municipalities) have a serious challenge to meet the growing need to sound waste management. They have to meet this need with their limited technical capacity and financial resources. In order to meet the need, many municipalities increase the waste management fees charged for waste collection, transportation, disposal, separation and recycling/ destruction. As a consequence, many households that cannot afford the fees are left behind. They have to figure out how to manage their wastes that may contain POPs. In most cases, their waste is not managed properly and POPs are not considered.

- Information and awareness barriers: in general, most community members have a lack of awareness/ information regarding the danger of POPs. They have limited understanding of the impacts/ adverse effects of POPs to human health and the environment, and knowledge on the link of socio-economic benefits associated with sound chemicals and waste management. There is no clear information regarding PBDEs and UPOPs that should be shared to public. Plastic manufacturers do not have clear understanding regarding the risks of PBDEs containing articles and the possibility of UPOPs releases to the environment.

## **Lessons Learned**

The project builds on UNDP's strong experience in Indonesia with promoting environmental protection, and building capacity of governmental organizations and the general public. UNDP has implemented projects in diverse environment subject areas, including climate change (mitigation and adaptation), Ozone Depleting Substances (ODS) reduction and phase-out (Ozone Layer Protection), renewable energy, REDD, biodiversity conservation/protection, disaster risk reduction, integrated water resources management and sustainable land management, and chemicals management. UNDP also supports national partners in areas related to inclusive development, democratic governance and other areas.

Learning from the result of Independent Assessment and Evaluation on the completion of Tsunami Recovery Waste Management Programme (TRWMP) in Aceh and Nias, it is important for the project to consider some recommendations on an active risk of regression in some districts whereby waste management practices could revert back to open dumping.

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## **II. STRATEGY**

### **A. Strategy Statement**

This project aims at assisting the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of PBDEs and UPOPs, as well as strengthening the sound management of chemicals and waste in order to protect human health and the environment which will result in social and economic benefits to vulnerable people such as reduced burden of diseases and reduced health care and environmental remediation costs. This will have an overall positive impact on the society and best felt by more vulnerable groups.

In addition to health, environment and economic impacts of the project, the project will also provide climate benefits. While any activity will raise some CO<sub>2</sub> releases, the project will work with two activity areas that are inherently climate beneficial i.e. increased recycling and material efficiency and better waste management, reducing both needs to use virgin resources and reduction of methane and other known potent greenhouse gases.

The commitment of the Government of Indonesia to the principles of sound chemicals and hazardous waste management has been confirmed by the country's ratification on Basel Convention (1993), the Stockholm Convention (2009), and Rotterdam Convention (2013), and participation in SAICM and Minamata Convention on Mercury. The project is closely aligned with national environmental strategies and plans as well as their underlying development strategies, particularly with Indonesia's National Long Term Development Plan (RPJPN 2005-2025), the Indonesia Medium Term Development Plan 2010-2014 (as well as the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI)), and the Indonesia Medium Term Development Plan 2015-2019.

### **B. Linkage with Country Programme**

By reducing releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) originating from unsound waste management and recycling practices and the manufacturing of plastics in Indonesia, the project will strengthen the efforts of the country to develop and establish Chemicals related strategy and guidelines to protect human health and the environment as stated in the Country Programme Action Plan (CPAP) 2011-2015 Output 2.1.3 and Outcome 2.1.

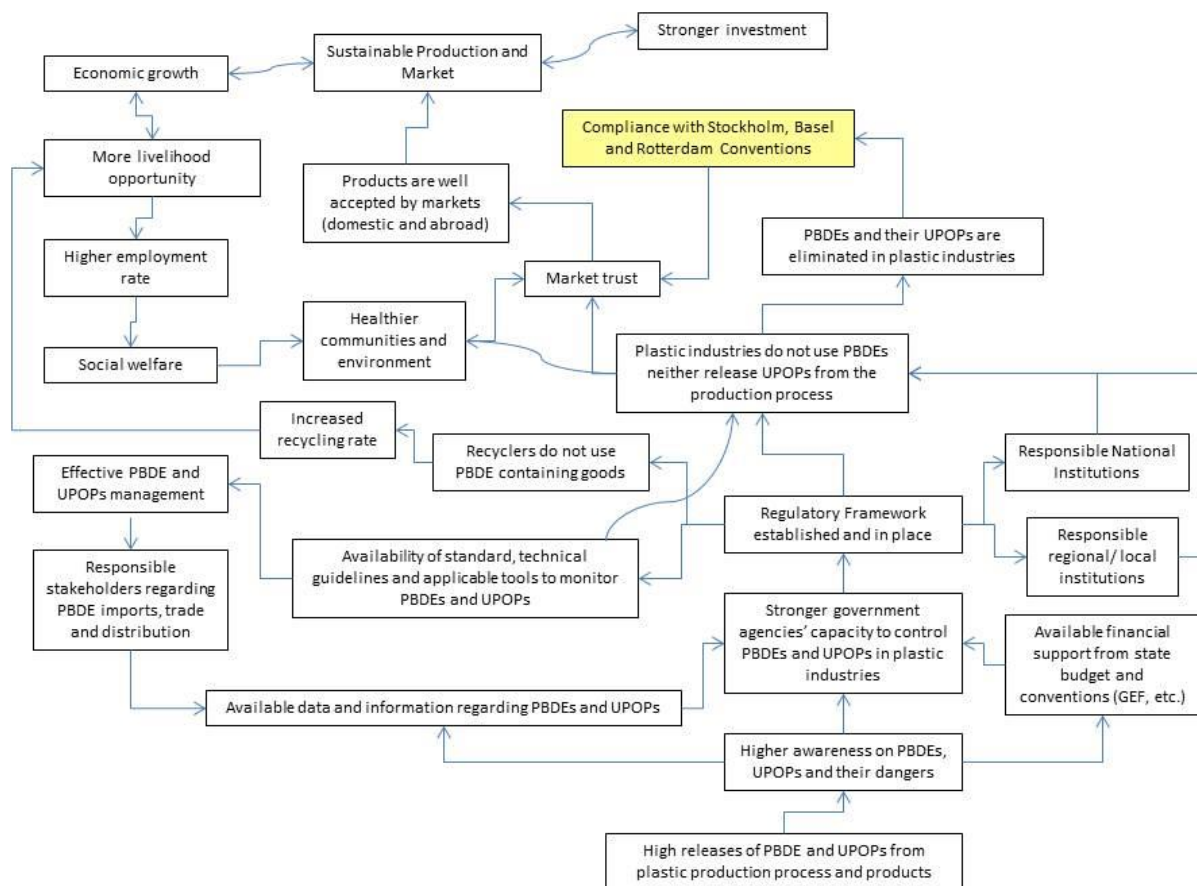
The project will strengthen the capacity of the Government of Indonesia i) to increase awareness on the importance of compliance with the Stockholm Convention on Persistent Organic Pollutants (POPs); ii) to address development challenges through Chemicals related regulatory framework development; iii) to apply Best Available Techniques and Best Environmental Practice (BAT/BEP) for PBDE and UPOPs; iv) to mobilize further financial resources for POPs; and v) to enhance knowledge sharing on POPs.

The project will also ensure achievement of inclusive and sustainable growth and development incorporating productive capacities that will create employment and livelihoods for the poor and excluded. Reduced PBDE and UPOPs releases from plastic industries and recycling activities will increase market trust and investment. This will ensure sustainable production leading to sustainable growth and development (UNDP Strategic Plan 2014-2017 Outcome 1).



## C. Result Tree

Figure 2: Result Tree



## D. Results Framework

**Project Outcome**<sup>5</sup>: To reduce releases of PBDEs and UPOPs by improving overall life-cycle management of plastics and PBDEs-containing plastics through the introduction of alternatives to PBDEs in plastics manufacturing processes and the application of BAT/BEP in plastics recycling and disposal practices.

**Intended Outcome as stated in the Country Programme Results and Resource Framework:** Responsible national institutions and relevant stakeholders are more effective in managing environmental resources and addressing environmental pollution (CPAP 2011-2015 Outcome 2.1.).

**Output 1: Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices**

The situation and stakeholder analysis indicates clearly that Indonesia needs to considerably strengthen its regulations and policies in order that the national actors conduct their business and activities as per the Stockholm Convention, reduce POPs releases, and better manage UPOPs. New and more detailed policies, rules and incentives are necessary for ensuring that PBDEs are not re-introduced or imported to Indonesia, and that during the phase out period waste is properly managed.

<sup>5</sup> The term that has been used by GEF = Project Objective

**Activity Results 1.1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations.**

**Activity 1.1.1. Develop National Standard on maximum PBDE content in products placed on the market.**

This is to develop a national standard on maximum PBDE content in plastic products, in particular in Electrical and Electronic Equipment and auto parts. The standard will refer to widely used EU RoHS as well as US REACH to ensure the quality in export products and improve the oversight of PBDE content in products. The Ministry of Industry and the Badan Standard Nasional (BSN) will organize series of multistakeholder consultations with government agencies, industries, and Customs agencies to have an agreement among stakeholders on accepted standard on maximum PBDE content in products placed on the market.

**Activity 1.1.2. Develop and integrate a policy/ regulatory framework for PDBE waste management in Solid Waste Management policy/ regulatory framework.**

This is to develop PBDE/UPOPs specific regulation and guidelines as well as amendments to any base regulations needed for alignment with the Stockholm Convention requirements in order to ensure that PBDE/UPOPs issues become integrated in Chemicals regulations and policies.

**Activity 1.1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.**

This will adopt technical issues related to UPOPs/PBDEs into Ministerial Decrees and further develop into implementation guideline through Directorate General's decrees for technical guidance on implementation of the regulation on the field. Dissemination of the regulations to stakeholders will be conducted to make all stakeholders aware of the regulations.

**Activity 1.1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.**

This will establish the legal, management and policy structure for the import of PBDE and PBDE containing products and waste which will support the institutionalization of national policies and legal framework related to the import of PBDE and PBDE containing products and waste. The activity will also support the development and dissemination of technical guidelines for PBDEs/UPOPs reduction and elimination from waste process. The activity will be implemented in collaboration with Customs agencies dealing with the import of PBDE and with Ministry of Public Works dealing with waste processing issues.

**Activity 1.1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal**

This is through provision of technical assistance to strengthen capacities of government officials for chemicals management regulations and their enforcement as well as Customs officers to ensure that POPs are not imported as chemicals substances or as a part of recycled material or waste. Activity 1.1.4 would facilitate designing specific approaches in capacity building and institutional mechanisms for inspection and monitoring.

**Activity 1.1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives**

This will aim at establishing policies to put in effect Extended Producer Responsibility (EPR) for potentially PBDEs/UPOPs releasing products. Thus, this will support market analysis on the cost of testing and disposal options and incentive scheme in large and small companies. This will include financial implications/assessment of the proposed scheme to be done to ascertain its sustainability.

EPR uses financial incentives to encourage manufacturers to design environmentally friendly products by holding producers responsible for the costs of managing their products until the end of life. In this programme, EPR may take the form of a buy-back programme by the producer. The producer may also choose to delegate this responsibility to a third party, a so-called producer responsibility organization (PRO), which is paid by the producer for used-product management. This way, EPR shifts the responsibility for waste management from government to private industry, obliging producers, importers and/or sellers to internalise waste management costs in their product prices and ensuring the safe handling of their products. In Indonesia, such cost could be included in Corporate Social Responsibility (CSR), as generally applicable to Indonesian companies. The issue related to CSR Obligation is that all companies managing or utilising natural resources or impacting natural resources are required to bear a social and environmental responsibility which is harmonious and balanced with the surroundings and the local society according to the values, norms and culture of that society.

In this programme, the PRO is expected to be established by the MOI and Industrial Association. The repurchase/buy-back programme then could be subcontracted to the PRO. Since the preliminary result of the NIP update showed that the main source of PBDEs is from CRT TV and computer and PUR foam in vehicles (truck, bus and car), the EPR will be obligated mainly to those industries which produce such products. The structure of this mechanisms along with sources of financing would be developed during implementation and after consultations with relevant Government organisations and industry.

## **Output 2: Reducing or eliminating the importation and use of PBDEs in plastics manufacturing**

As envisioned in the project concept stage, this component will cooperate with the plastic manufacturing companies in Indonesia in order to insure that PBDEs are not used in the production stage of new plastic articles. Despite the fact that no companies have been identified using Stockholm Convention restricting PBDEs in their production, the risk of this happening unintentionally has not disappeared. Many companies use imported raw materials, both virgin and recycled, in their production processes. In addition, many manufacturing companies use domestic recycled plastic material that could contain POPs flame-retardants as ingredients.

### **Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling**

The project outcome will ensure that the whole picture of PBDE use in plastic industry is fully mapped among the many companies active in the sector; and that technical assistance and expertise for switching to non-POPs alternatives exist for companies needing the assistance.

#### **Activity 2.1.1 Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing**

According to the preliminary information on the NIP update, there is no detailed inventory on PBDEs imported or recycled in plastic manufacturing sector. Therefore, the NIP update information will be evaluated and analyzed for gaps. Although the production of PBDEs has been stopped in many countries, there would be a possibility of PBDEs still being used in Indonesia, with or without their knowledge, as raw material from second-hand products, recycled materials or waste. If further data collection is deemed necessary, a survey focusing on particularly manufactures of CRT TV and computer and PUR foam in vehicles will be conducted. A sampling method will be developed to identify whether raw material containing PBDEs is used in the plastic manufacturing sector. Through the data collected, if some companies are found still using PBDEs, they will be the primary participants in capacity building activity proposed under Activity 2.2.1.

#### **Activity 2.1.2. Sufficient in-country PDBE capacity built for selection and identification of suitable PBDE alternatives**

This supports capacity building for those who use and handle PBDE-contained plastics in plastic manufacturing process, including companies which are found using PBDEs in their products under Activity 2.1.1. It will provide the information on PBDEs alternatives and its applications to eliminate the use of PBDEs in their products. This also supports establishment of a PBDE expert roster, especially to assist small and medium sized plastic manufacturing to shift to more environmentally friendly flame-retardants and better raw material control.

**Activity Result 2.2: PBDE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising**

This activity will work with plastic manufacturers in setting up and maintaining quality control systems for incoming raw material in order to ensure consistence with specifications and ensuring that no banned substances such as PBDEs or heavy metals are ingredients in the raw material stream. In addition, a proper communication strategy for ensuring sustained PBDE and UPOPs release reduction will be developed.

The information obtained and communication plan related to PBDEs/UPOPs will be extended outside of Indonesia as advised by the GEF Scientific and Technical Advisory Panel (GEF STAP), as the project is exploring new communication and approaches that may be of great interest in the wider international POPs community.

**Activity 2.2.1. Assistance in Quality assurance programmes to ensure PBDEs free plastic manufacturing**

This activity is to introduce PBDEs-free labeling in the plastic products, particularly CRT TV and computer and PUR foam in vehicles. This is through inclusion of PBDEs in toxic/harmful chemical stickers/labels which are being implemented by the Ministry of Environment. In so doing, the Quality Assurance programme should be introduced to the manufacturing company, the third party auditors and inspectors and the government, to run this quality assurance programme. This will also support quality control programme, awarding industry “champions”, such as large plastics manufacturers in automobile and electronics industries who already have stringent quality control programme as well as met high standards such as EU RoHS and US REACH, providing leadership in establishing and running quality control schemes and sharing their good practices among smaller plastic manufacturing companies.

**Activity 2.2.2. Communication and awareness raising**

This activity will support development of a full-fledged communications strategy, in partnership with NGOs and CSOs involved in plastic recycling and waste management such as Konsorsium Lingkungan Hidup (Consortium of Environment) (KLH), Pembinaan Kesejahteraan Keluarga (Family Welfare Movement) (PKK), and Karang Taruna, aiming at private industries including manufacturers, recyclers and waste service providers as well as policy makers and local consumers to achieve specific and measurable behavioural changes with decision and policy makers at private businesses at provincial and national levels, as well as local (district) stakeholder groups in the field. Throughout the project, active participation of women and women’s groups will be ensured in order to address the improvement of women’s health and lives. Awareness materials especially tailored for women and vulnerable groups will be prepared to sensitize the health risk of POPs and importance of safe and sound management of Chemicals.

As identified during the project preparatory workshops in Jakarta and Surabaya, knowledge on PBDEs is currently still very limited. Therefore, a common knowledge, understanding, commitment and involvement and as a result increased awareness on the protection of human health and the environment from the toxic chemical exposure, e.g. towards significantly improved national policy decisions, production systems, consumption behavior, etc. needs to be built to ensure both effectiveness and sustainability of successful PBDEs and UPOPs use and release reduction.

This activity will:

- (a) Identify target messages, target groups, and national partners. Design awareness impact monitoring system, and assess impact at completion
- (b) Design social marketing campaign, focusing on high level government decision makers, as well as local resource users in the pilot districts
- (c) Develop PBDEs and UPOPs information including EPR and PBDE-free labelling, education and communication materials
- (d) Conduct national, regional and local communications campaigns.
- (e) Conduct training on PBDEs – with emphasis on field practitioners' level actors.
- (f) Disseminate lessons learnt at local, national and international level

### **Output 3: Reducing of UPOPs and PDBEs from unsound plastics recycling**

As envisioned in the project concept stage, this project component will work towards pilot approaches to divert PBDE containing plastics already entering the recycling chain as well as reducing the amount of uncontrolled plastic waste burning at recyclers.

Indonesia being a large country with a very significant production and consumption base for plastic goods and their recycling, the project will support both Ministry of Industry and Ministry of Environment in detailed mapping of the main plastic recycling areas and supply routes, considering also imported plastic waste as well as the waste transported among the Indonesian islands.

This Output 3 and 4 will be implemented in partnership with the local NGOs, namely *Konsorsium Lingkungan Hidup* (Consortium of Environment) (KLH), Inspiracy and Ecoton in Surabaya area as well as My Darling and Forum Bandung Bebas Sampah in Bandung. During the project preparation, they expressed their strong interests in cooperating, and will particularly provide training and disseminating safe and sound plastic recycling and plastic waste collection, separation and disposal and support ensuring the sustainability of the project activity and outcome.

Through the outputs of the project's interventions, plastics recyclers will be able to produce recycled materials that are purer in quality, are supplied in sufficiently large quantities to ensure a constant and reliable supply chain to plastics manufacturers and be able to offer them at internationally competitive prices. Furthermore, the increase in amounts and efficiency of the plastics recyclers will not only create additional income generating activities and jobs in the recycling sector, but also divert waste from landfills and lower the costs currently born by municipalities and tax-payers.

#### **Activity Result 3.1 Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BAP in the plastics recycling sector.**

The activity will involve established plastic manufacturers/third party intermediaries and most importantly recycling (plastic sorting) clusters to ensure that the plastic recycled is free of PBDEs and that plastic recyclers are demonstrated BAT/BEP, with a view of increasing the environmental benefits of their operations. In this work, UNEP's 2012 publication "Guidance on Best Available Techniques and Best Environmental Practices for the Recycling and Disposal of Articles Containing Polybrominated Diphenyl Ethers (PBDEs) listed under the Stockholm Convention on Persistent Organic Pollutants" and best international practice will be used.

#### **Activity 3.1.1 formal/informal entities handling/ processing significant quantities of PBDEs containing plastics as well as PBDEs and UPOPs specific challenges these entities encountered, identified**

This will map out of the plastic recycling chain, plastic recycling areas, recycled plastic supply routes, entities, population and gender of workers handling PBDEs containing plastics. Through this mapping, entities identified as handling significant quantities of PBDEs containing plastics will be

primary participants in capacity building activities proposed under Activity 3.1.2. and 3.1.3 to support their implementation of BAT/BEP in their PBDEs containing plastic processing.

Activity 3.1.2. Total four large scale formal and informal plastics recycling clusters in Mojokerto (East Java) and Bekasi (West Java) supported in implementing BEP/BAT

This will be implemented by separation of PBDE containing plastics at major recycling clusters of Mojokerto, Trowulan in East Java as well as recycling centers in West Java, around Bekasi City (Cibitung and Cikarang). It will include capacity building and training of waste traders, waste recipients and environmental authorities for the implementation of BEP/BAT adhering technologies for bulk plastic sorting, processing and recycling to reduce releases of UPOPs and PBDEs and increase production of improved quality recyclable plastics. This will entail procurement and training in use of sliding spark spectrometers and training in their use for rapid identification of PBDEs containing plastics. By supplying these to the recycling clusters, high PBDE containing fractions from the e-waste and auto parts stream can be separated and set aside.

In practice, the high PBDE containing plastics are the covers of CRT formerly either used as computer or television monitors. In some cases also, plastic computer casings have high content of PBDEs. They contain lead and other toxic metals in addition to PBDEs. Thus, this activity will also support improvement on their personal protection measures, safe working conditions, standards and infrastructure and best approaches to reducing harmful releases of UPOPs and PBDEs, especially in informal sector and women workers, in cooperation with co-financing partners.

Activity 3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT

This is the same activity as Activity 3.1.2. above, but will be implemented in cooperation with medium scale informal plastics recycling entities in the same pilot areas.

**Activity Result 3.2 Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.**

This outcome will focus on major centres receiving and further processing PBDE rich plastic waste, particularly e-waste and auto parts waste and its plastic fractions such as dashboards and similar case interior plastics. It will further work on the sustainability and replicability of managing the PBDE containing waste stream.

In the work of estimation flows of PBDE containing plastics, it is important to consider that PBDEs are actively being phased-out from world-wide production. However, due to the long phase-out period and the difference in product life-time, the management of PBDE waste going through recycling will have a long time line to be managed.

Activity 3.2.1. Regular re-collection systems set-up for PBDEs containing plastics and waste fractions as well as unrecyclable plastics for adequate disposal.

This will support the safe disposal of PBDE plastics to be standard practice in the selected pilot area and will contribute to 50 tons/year of PBDE plastics safely disposed by reverting PBDE plastics from further recycling. Once the PBDE rich fraction has been separated from the overall e-waste and auto parts and verified by environmental authorities to be such waste, they will be collected, stored and transported for safe disposal. At the time of this project formulation, there is only one engineered hazardous waste landfill built to international standards in operation in Indonesia in Cileungsi – Bogor, West of Java Province, operated by PT. Prasadha Pamunah Limbah Industri (PPLi). This company will be subcontracted for disposing of the PBDE containing plastics given that this is the most economical way of safe disposal. Due to the long inland transport to Bogor from Mojokerto, also other international disposal possibilities with shipping from Surabaya port or other nationally available disposal method will be investigated for possible cost savings throughout the project implementation.

At the beginning of this system operation, co-financing partners together with other public and private setcor partners will support setting up the economic instrument of repurchasing PBDEs waste from collectors which later the EPR scheme proposed under Activity 1.1.6 and other additional financial support are expected to support this system operation and ensure its sustainability.

#### **Output 4: Reducing releases of UPOPs and PBDEs from unsound plastic disposal practices**

As envisioned in the project concept stage, this project activities will work towards avoiding uncontrollable burning of plastic waste in selected pilot areas for showcasing good approaches for replication.

The activities will work on two different level with both authorities and non-governmental stakeholders particularly industries, environment and women's groups. At the beginning of the activities, the baseline data of the population, gender (disaggregate) and livelihoods in the pilot sites will be collected to be able to properly capture the impact of the project activities.

The municipal waste management and industrial waste management activities in this activities have important socio-economic dimensions, as they improve living conditions of the communities both in the urban setting and particularly the ones living on riverbanks and close to industrial sites. The diversion from using waste as fuel in food processing can have very significant local health effects as well as the fact that waste is not constantly burnt. Beside the community mobilization and activation, some additional employment and income generation opportunities will be created at the waste-depos which could help reduce poverty.

In addition, this component will be implemented closely with paper industry and NGOs active in East Java to sustainably manage the plastic waste generated from importation of mixed recycled paper and plastic mix, of which the industry utilises only the paper fraction and the remaining plastic fraction is being burnt either uncontrollably or at improper facilities emitting UPOPs both into the food chain and the environment.

#### **Activity Result 4.1: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.**

##### **Activity 4.1.1. Total 4 municipalities/local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.**

The authorities at Surabaya and Bandung area will receive technical assistance in form of international expertise to separate PBDE containing plastics entering municipal waste streams, to establish sound disposal system integrated with other municipal hazardous waste for these and to minimize uncontrolled waste burning both from municipal and industrial sources. For the peri-urban districts in Surabaya, a special emphasis will be put to manage waste along the Surabaya River. The river and its banks have been selected as pilot area as there are particular issues that need to be solved from. This is both governance perspective as several municipalities are bordering to the river and ecosystems perspective when a big amount of waste (10 tons/day) is dumped in the river. This is expected to result in MSW 250,000 ton per year being sent to sanitary landfilling and waste-to-energy treatment in Surabaya and Bandung area.

##### **Activity 4.1.2. Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.**

The activities among the river communities will entail setting up pre-sorting facilities, coupled with

composting and establishment of functioning reselling channels for recyclable waste. The goal for this action is to prevent UPOPs releases from household open burning and disposal of household waste into the river. The activities will be in the form of community development to the settlement along the river side, with active participation of women and women's groups.

The main idea is to replicate the concept of Super-depo (the intermediate waste treatment / plastics recycling facilities), of which the first pilot has been developed by Surabaya Municipality, along the riverbanks of Surabaya River. As it will be implemented in a smaller community, then the design of the supporting facilities and the building will be simplified as a "mini-depo".

Another similar area to be targeted by the project are the banks of Cikapundung River, which is 28 kilometres long flowing through three districts including the City of Bandung, the Bandung Regency and the West Bandung Regency.

Both sides of the Cikapundung River is full of buildings. Most of the buildings are residential located directly on the riverbanks. Data obtained from the Agency for Environmental Control of Bandung stated that there were about 1,058 households living close to the riverbank of the Cikapundung River. The estimated waste generation is 2.8 tons a day. Almost all dispose their household waste directly into the river.

The number of household living along the banks of the Cikapundung River is around one-third of the number who live along the riverbanks of the Surabaya River. The project will develop total 8 mini-depos, of which 3 will be on the Cikapundung riverbanks and 5 along the Surabaya River.

Since the habit of communities along riverbanks is almost similar to those in most urban areas in Indonesia, the replication of action demonstrated at the Surabaya and Cikapundung river settlements is expected to be implemented smoothly.

This will entail working with both larger scale operations as well as the riverside communities. The activity supports establishment of 8 mini-depos in the riverside communities for separation and collection of waste. This is expected to prevent dumping of waste into the river, at a reduction rate of 8 tons per week.

Activity 4.1.3. Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recyclable plastics diverted from inadequate disposal.

By operationalizing the Extended Producer Responsibility proposed under Activity 1.1.6 and also implementing integrated waste management with mini-depo establishment under Activity 4.1.1 and 4.1.2, the recycling chain for the local market of plastics recycling will be supported and developed. This activity will analyze the gaps and challenges in the recycling chain activities, and provide technical assistance to address those challenges identified. Also the possibility of involving local and regional plastics recycling related businesses will be explored to ensure its sustainability. This activity is expected to support eventually the increase in plastics recycling rate and to reduce the quantity of inadequate disposal which would also lead to the reduction of waste handling cost.

Activity 4.1.4. Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.

In general, waste processing involves informal sector and low-income population including women and children who undertake uncontrolled waste processing in close proximity to their homes. Thus, this will provide technical assistance and capacity building training for the designated PBDEs acceptance/disposal "points" staff for improvement of their personnel protection measures, safe working conditions, standards and infrastructure and best approaches to reducing harmful releases and exposure of UPOPs and PBDEs as well as protecting their health and safety, especially in informal sector and female workers, in cooperation with co-financing partners.



## **Output 5: Monitoring, learning, adaptive feedback, outreach, and evaluation**

The output aims at monitoring and evaluation of results achieved to improve the implementation of the project and disseminate lessons learnt domestically and internationally.

### **Activity Result 5.1: Monitoring and Evaluation and adaptive management applied in response to needs, mid-term evaluation findings with lessons learned extracted.**

Activity 5.1. Monitoring and Evaluation and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs

Throughout the project implementation, feedbacks will be collected at the workshops and consultations to better adjust the project needs and to maximize the project results. During the Monitoring and Evaluation process, Gender issues will be taken into consideration.

Activity 5.2. Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally.

In this activity, knowledge products that include best practices and lessons-learned from project implementation will be developed and disseminated to sustain and replicate the project results.

*Further details are provided in Section: VI. Monitoring Framework and Evaluation.*

## **E. Cross-Cutting Issues**

### **Gender Strategy**

The project will address the priority concerns of vulnerable groups including women workers to assess and strengthen their capacity to properly manage PBDEs recycling and waste. The project will have a strategy to collect gender disaggregated data to ensure the involvement of women in various governance structure of the project throughout the project implementation, monitoring and evaluation.

Many of the workers in processing plastics recycling and waste, especially in informal sector, are women and children and therefore they are potentially exposed to the toxic chemicals, including POPs, during unsafe processing. By promoting proper collection and processing of plastics recycling and waste, health risks to women workers and children as well as local communities will be reduced from PBDEs/UPOPs exposure.

In addition, the project will be implemented through active participation and engagement of women's groups. Many of the project key stakeholders include women leaders at CSOs and NGOs as well as some recycling companies. They will be actively involved in the project activities and consultations to ensure gender issues are fully integrated in the project implementation. NGOs such as *Pembinaan Kesejahteraan Keluarga* (Family Welfare Movement) (PKK), and *Karang Taruna*, will support the project awareness raising activities, taking into consideration the specific impact of POPs on women and children, for them to be able to take preventive measures at home and in workplace.

In the long term, this project will have positive impacts, in particular, on maternal and infant health, as women are biologically more susceptible to POPs and mothers can pass as much as 33% of their chemical body burden to their children. The reduction of POPs releases and exposure will lead to higher health benefits for the population working at or residing near the facilities using or releasing PBDEs/UPOPs. The improved health and lives will eventually benefit their families, communities and nation and also contribute to reducing gender inequalities.

## Partnership

	Government	Civil Society	Private Sector	Development Partners
Key stakeholders <sup>6</sup>	Ministry of Industry, Ministry of Environment and Forestry, Ministry of Finance (Customs), National Agency of Drugs and Foods Control (BPOM), and Local government agencies (BAPPEDA Mojokerto, Local Office of Environmental Management or BLHD, etc.).	Yayasan <i>Konsorsium Lingkungan Hidup</i> (KLH), Ecoton, My Darling, and <i>Inspirasi</i> .	Perum Jasa Tirta, APHINDO, GIATPI, INAPLAS, AKIDA, Packindo, Rotokemas, recycling groups, and suppliers.	GEF OFP
Primary <sup>7</sup> stakeholders	BAPPENAS, Ministry of Trade, Ministry of Health, Agency for Assessment and Application of Technology (BPPT), and Ministry of Energy and Mineral Resources (ESDM).	<i>Komite Nasional - Responsible Care Indonesia</i> (KN-RCI), and <i>Prasadhha Pamunah Limbah Industri</i> .	Chandra Asri Petrochemical, Styrimono Indonesia, Tri Polyta, Polytama, Titan Petrokimia, PERTAMINA, Astra Otoparts, and other manufacturing industries.	WHO, UNIDO
Secondary stakeholders <sup>8</sup>	Ministry of Home Affairs	Family Welfare Movement (PKK), Youth Group “ <i>Karang Taruna</i> .”	Surveyor Indonesia, and Sucofindo.	UNICEF

Plastic manufacturing, recycling and waste management involve a very large number of stakeholders in a country of Indonesia’s size. The plastics manufacturing companies are more than 2,000. The biggest association, Indonesian Association of Aromatic, Olefin and Plastics Industries (INAPlas), has more than 400 members with most major and upstream raw material producers as members. The informal plastics recycling sector supplies more than 60 formal plastics manufacturers. The Indonesian scavengers’ network indicated that, in Jakarta alone, there are more than 150 facilities that supply recyclable materials to different industries. In certain cases, these clean, sort and preliminary process plastics, before reselling to buyers in Indonesia and abroad.

The nationally significant stakeholders are regulated and controlled by national policies and laws set up by line ministries and negotiated together with industry associations and large interest groups, with interests in worker safety, consumer protection and the environment.

## F. Sustainability Milestones and Exit Strategy

### Elements of Sustainability

The elements of sustainability are on the level of awareness of stakeholders concerning health and environmental impacts resulted from the inappropriate use of certain substances and capacity of stakeholders to manage these pollutants. Therefore, the implementation of this project will facilitate the stakeholders to strengthen their level of awareness and capacity to manage. In addition, by gaining best practices and lessons learned from the project preparation, planning and implementation, the Implementing Partner and relevant stakeholders will have an opportunity to evaluate the updated National Implementation Plan (NIP) on POPs, implement national standard and technical guidelines that will be developed and established throughout the project implementation and recommend the Government of Indonesia to improve the annual on-going PROPER Award mechanism.

<sup>6</sup> Actors who are able to use their skills, knowledge or position of power to achieve the targeted result towards attaining the expected outcome

<sup>7</sup> Actors who are directly affected by the programme, such as designated beneficiaries.

<sup>8</sup> Actors whose involvement in the programme is only indirectly or temporary, for instance the intermediary service organizations.

### **Sustainability Milestones**

Milestone Year 1:	Academic draft of specific technical by laws that contains the standard of PBDE handling and management developed for policy discussion.
Milestone Year 2:	Establishment of a national standard on maximum PBDE concentration in products and technical by-laws and guidelines.
Milestone Year 3:	State fund allocated for relevant activities to monitor PBDEs and UPOPs
Milestone Year 4:	Relevant activities to manage pollutants released by private sector, such as to discontinue use of PBDEs in production phase, monitoring of PBDEs in recycling and disposal phases.

### **G. Replicability**

The project will work with various stakeholders at all levels. At central level, the government will have a chance to develop and establish certain standard for other substances in compliance with international conventions (Stockholm Convention, Basel Convention and Rotterdam Convention, SAICM, etc.). The project activities are designed in a way that encourages replication. Firstly, the project will support the Government of Indonesia in harmonization of its policies and legislative framework with international conventions and standards. While these are one-off activities they will require updates and applications in similar related fields. This will increase the sustainability of the regulatory system. At local level, local governments will have an opportunity to conduct monitoring activities in order to ensure that PBDE, UPOPs and other chemicals are treated in accordance with the national standard and technical guidelines established by central government.

In the meantime, at the grass-root level, recyclers will have an opportunity to conduct appropriate activities to select and dispose used plastic products identified to contain PBDEs even after the project is completed. The PBDE plastic separation, and safe disposal could be replicated with financial resources made available. These are not available at the present and in the current system but the project will work towards establishing schemes through the Extended Producer Responsibility approaches. It is expected that, by the end of the project, a functioning financing system is established so that the current schemes are sustainable and similar schemes can be set up in other parts of Indonesia. The most important areas to replicate are at other recycling clusters in Java as well as Batam and Sumatra.

The approaches tried out in improving the plastics recycling municipal waste management and associated UPOPs and marine litter release reduction are directly replicable in other parts of the country. It is expected that some replication will already take place during the project implementation but the most important contribution from the project side will be lessons learnt and knowledge of which approaches work in developing peri-urban and riverside waste management. The expansion and replication will require considerable additional financial resources but the project will validate if the approach used is applicable for replication by municipalities and communities.

### **H. Scaling Up Plan**

Scaling up of the project initiative will be considered for management of other substances (to be) listed under the Stockholm Convention and other conventions in greater locations that have POPs and Chemicals related manufacturing, recycling and waste management industries. The possibility of scaling up can be further explored and discussed with the stakeholders, taking their support and commitment into consideration.

### III. Results and Resources Framework

<p><b>Intended Outcome as stated in the UNPDF:</b> by 2020, Indonesia is sustainably managing its natural resources, on land and at sea, with an increased resilience to the effects of climate change, disasters and other shocks (UNPDF 2016-2020 Outcome #3)</p>
<p><b>Expected UNDP Country Programme (CP) Output:</b> Systems strengthened to properly manage, dispose and phase-out hazardous chemicals (UNDP CP 2016-2020 Output #3.5)</p>
<p><b>Output Indicators as stated in the CP:</b> Extent to which policy framework is in place and enforced for the control of polybromodiphenyl ethers and mercury.</p>
<p><b>Applicable Key Results Area (from 2014-2017 Strategic Plan):</b></p> <ul style="list-style-type: none"> <li>• <u>Outcome 1</u>: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded.</li> <li>• <u>Output 1.3</u>: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste</li> <li>• <u>Area of Work 1</u>: Sustainable Development Pathways.</li> </ul>
<p><b>Partnership Strategy:</b> The project will work with national government agencies, local government agencies, private sector, and recycling and waste management.</p>
<p><b>Project Title and ID (ATLAS Project and Award ID):</b> Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia.</p>
<p><b>Project ID:</b> 00091789 - <b>Award ID:</b> 00083160</p>

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 1: Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices</b></p> <p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Technical by-laws and guidelines on PBDE handling and management.</li> <li>2. National standard on maximum PBDE concentration in products.</li> <li>3. Functioning Extended Producer Responsibility (EPR) scheme for PBDE containing product groups.</li> </ol> <p><b>Baseline:</b></p>	<p>A specific technical by laws that contains the standard on PBDE handling and management is established, disseminated and adopted.</p> <p><b>Year 1:</b></p> <ol style="list-style-type: none"> <li>1. A draft of specific technical by laws on PBDE handling and management is developed.</li> <li>2. A draft of specific national standard on the maximum PBDE concentration in products is developed</li> <li>3. A draft of EPR is developed.</li> </ol> <p><b>Year 2:</b></p> <ol style="list-style-type: none"> <li>1. A specific technical by laws on PBDE handling and management is established.</li> <li>2. A specific national standard on the maximum PBDE concentration in products</li> </ol>	<p><b>Activity Result 1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>1.1. Develop National Standard on maximum PBDE content in products placed in the market.</li> <li>1.2. Develop and integrate a policy/ regulatory framework for PDBE waste management in Solid Waste Management policy/ regulatory framework.</li> <li>1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.</li> </ol>	<p>Ministry of Industry</p>	<p>627,000</p>

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<ol style="list-style-type: none"> <li>1. No technical by-laws and guidelines on PBDE handling and management.</li> <li>2. No national standard on the maximum use of PBDEs in a product.</li> <li>3. No EPR scheme for PBDE containing product groups.</li> </ol>	<p>is established.</p> <ol style="list-style-type: none"> <li>3. 3 associations and 3 companies are consulted concerning the draft of EPR.</li> </ol> <p><b>Year 3:</b></p> <ol style="list-style-type: none"> <li>1. 3 associations and 3 companies gain information regarding the dissemination on specific technical by laws.</li> <li>2. 3 associations and 3 companies gain information regarding the standard on the maximum PBDE concentration in products.</li> <li>3. 3 more companies are consulted regarding the draft of EPR.</li> </ol> <p><b>Year 4:</b></p> <ol style="list-style-type: none"> <li>1. 3 local government agencies, 3 community-based organizations (CBOs)/ non-government organizations (NGOs), and 3 more companies located in 3 provinces gain information concerning the implementation of specific technical by laws on PBDE handling and management.</li> <li>2. 3 local government agencies, 3 CBOs/ NGOs and 3 more companies gain information regarding the implementation of the national standard on the maximum use of PBDE in products.</li> <li>3. 3 local government agencies, 3 community-based organizations (CBOs)/ non-government organizations (NGOs), and 3 more companies located in 3 provinces gain information regarding the implementation of EPR.</li> </ol>	<ol style="list-style-type: none"> <li>1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.</li> <li>1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal</li> <li>1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives</li> </ol>		
<p><b>Output 2.1:</b> Sufficient national technical expertise built to meet challenges with PBDEs in manufacturing and plastic raw material recycling.</p> <p><b>Indicators:</b> Number of technical guidelines on the plastic production and recycling are developed</p>	<p>Technical guidelines and standard on the plastic production and recycling.</p> <p><b>Year 1</b> A draft of technical guidelines and standard on the plastic production and recycling is developed.</p> <p><b>Year 2</b> A technical guideline and standard on the plastics production and recycling is established.</p>	<p><b>Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>2.1.1 Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing</li> <li>2.1.2. Sufficient in-country PDBE capacity built for selection and identification of suitable PBDE</li> </ol>	<p>Ministry of Industry</p>	<p>668,000</p>

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Baseline:</b> No technical guidelines on the plastic production and recycling</p> <p><b>Output 2.2:</b> PBDE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</p> <p><b>Indicators:</b> Number of plastic manufacturers have comprehensive raw material checks for PBDEs.</p> <p><b>Baseline:</b> No checking has been undertaken to identify PBDEs in both virgin and recycled, raw materials.</p>	<p><b>Year 3</b> 3 associations of plastic manufacturing companies, 3 plastic manufacturing companies, and 2 plastic recycling companies gain information regarding the technical guidelines and standard on the plastic production and recycling.</p> <p><b>Year 4</b> 3 more plastic manufacturing companies and 2 plastic recycling companies receive information regarding the technical guidelines and standard of the plastic production and recycling.</p> <p>Plastic manufacturers have capacity to identify PBDE in their raw materials for production process and consider alternative substances.</p> <p><b>Year 1</b> Three plastic manufacturers gain information on the danger of hazardous and toxic PBDEs and UPOPs through the implementation of workshops in Bekasi, Surabaya and Bandung.</p> <p><b>Year 2</b> Three more plastic manufacturers gain information on the danger of hazardous and toxic PBDEs and UPOPs.</p> <p><b>Year 3</b> Three more selected companies are willing to join the programme to reduce and phase-out PBDEs in their production process.</p> <p><b>Year 4</b> Three more selected companies have tools to identify PBDEs.</p>	<p>alternatives.</p> <p><b>Activity Result 2.2: PBDE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising</b></p> <p><u>Activities:</u> 2.2.1. Assistance for Quality assurance programmes for ensuring that PBDEs free plastic manufacturing 2.2.2. Communication and awareness raising</p>	<p>Ministry of Industry</p>	
<p><b>Output 3.1:</b> Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BAP in the plastics recycling sector.</p>	<p>Plastic recycling sector has capacity to identify and improve technical practices in handling, storing, recycling and disposing PBDEs containing wastes.</p> <p><b>Year 1</b> 1. A gender segregated data on recyclers is collected.</p>	<p><b>Activity Result 3.1: Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BAP in the plastics recycling sector</b></p> <p><u>Activities:</u> 3.1.1 (In) formal entities handling/ processing</p>	<p>Ministry of Industry</p>	<p>1,505,000</p>

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Gender disaggregated data on recyclers.</li> <li>Number of plastic recyclers whose capacity to identify PBDEs and process plastic waste to BAT/BEP is increased.</li> <li>Rudimentary techniques for plastic processing applied in plastic recycling clusters.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Unavailability data on gender-based recyclers.</li> <li>No plastic recyclers have capacity to identify PBDE and process plastic waste.</li> <li>No application of BAT/BEP in plastic recycling activities.</li> </ol>	<ol style="list-style-type: none"> <li>Three recycling companies are trained to understand the danger of hazardous and toxic PBDEs.</li> <li>A draft of technical guideline (BAT/BEP) for recycling sector is prepared.</li> </ol> <p><b>Year 2</b></p> <ol style="list-style-type: none"> <li>3 capacity building programs that cover the interest of both women and men workers are undertaken.</li> <li>3 more recycling companies gain understanding on the danger of hazardous and toxic PBDEs.</li> <li>A technical guideline (BAT/BEP) for recycling sector is established.</li> </ol> <p><b>Year 3</b></p> <ol style="list-style-type: none"> <li>3 more selected companies that cover the interest of both women and men workers are willing to join the programme to reduce and phase-out PBDEs in their recycling practices.</li> <li>3 selected companies have tools to identify PBDEs and dispose PBDEs containing goods.</li> <li>The established technical guideline is integrated into 3 plastic recycling practices.</li> </ol> <p><b>Year 4</b></p> <ol style="list-style-type: none"> <li>3 more selected companies that cover the interest of both women and men workers are willing to join the programme to reduce and phase-out PBDEs in their recycling practices.</li> <li>3 more selected companies have tools to identify PBDEs and willingness to dispose PBDEs containing goods.</li> <li>The established technical guideline is integrated into 3 more plastic recycling practices.</li> </ol>	<p>significant quantities of PBDEs containing plastics as well as PBDEs and UPOPs specific challenges these entities encountered, identified.</p> <p>3.1.2. Total four large scale formal and informal plastics recycling clusters Mojokerto (East Java) and Bekasi (West Java) areas entities supported in implementing BEP/BAT.</p> <p>3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT.</p>		
<p><b>Output 3.2:</b> Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal</p>	<p>Plastic recycling sector has capacity to identify and improve technical practices in addressing UPOPs.</p> <p><b>Year 1</b></p>	<p><b>Activity Result 3.2: Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</b></p>	<p>Ministry of Industry</p>	

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p>practices at recycling entities.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Tonnage of PBDE containing plastics separated and safely disposed.</li> <li>Technical guidelines to separate PBDE containing plastics.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>No data on PBDE containing plastics.</li> <li>Technical guidelines to separate PBDE containing plastics.</li> </ol>	<ol style="list-style-type: none"> <li>100 metric tons of PBDE containing plastic waste are separated and safely disposed.</li> <li>A draft of technical guidelines to eliminate UPOPs is prepared.</li> </ol> <p><b>Year 2</b></p> <ol style="list-style-type: none"> <li>500 metric tons of PBDE containing plastics waste are separated and safely disposed.</li> <li>A technical guideline is established.</li> </ol> <p><b>Year 3</b></p> <ol style="list-style-type: none"> <li>800 metric tons of PBDE containing plastics are separated and safely disposed.</li> <li>The technical guideline is integrated into 3 plastic recycling practices.</li> </ol> <p><b>Year 4</b></p> <ol style="list-style-type: none"> <li>1,000 metric tons of PBDE containing plastics waste are separated and safely disposed.</li> <li>The established technical guideline is integrated into 3 more plastic recycling practices.</li> </ol>	<p><u>Activities:</u></p> <ol style="list-style-type: none"> <li>3.2.1. Develop technical guidelines to separate and eliminate UPOPs.</li> <li>3.2.2. Establish technical guidelines in coordination with relevant stakeholders.</li> <li>3.2.3. Conduct and establish regular re-collection systems (especially PBDE containing plastics).</li> <li>3.2.4. Ensure separation on PBDE containing plastics (waste).</li> <li>3.2.5. Dispose PBDE containing plastics in accordance with the guidelines.</li> </ol>		
<p><b>Output 4:</b> PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Number of mini-depos for waste separation established at communities.</li> <li>Tonnage of waste diverted from river dumping.</li> <li>Additional tonnage of MSW undergoing sanitary landfilling and waste to energy treatment in Surabaya and Bandung.</li> </ol>	<p>Disposal options for hazardous and unrecyclable plastics waste fractions from both formal and informal recyclers and waste collectors are established and implemented.</p> <p><b>Year 1</b></p> <ol style="list-style-type: none"> <li>1 mini depo is prepared for waste separation at community.</li> <li>1 ton/week of plastic waste diverted from river dumping in East Java.</li> <li>1 ton/week of waste diverted from river dumping in West Java.</li> </ol> <p><b>Year 2</b></p> <ol style="list-style-type: none"> <li>2 mini depos are prepared and technical guideline is established.</li> <li>4 tons/week of plastic waste diverted from river dumping in East Java.</li> <li>4 tons/week of plastic waste diverted from river dumping in West Java.</li> </ol>	<p><b>Activity Result 4: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</b></p> <p><u>Activities:</u></p> <ol style="list-style-type: none"> <li>4.1. Total 4 municipalities/ local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.</li> <li>4.2. Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for</li> </ol>	Ministry of Industry	900,000



INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Limited number of demonstrated mini-depos in urban areas.</li> <li>10 tons/week of waste is dumped in Surabaya River. About 3 tons is dumped in Cikapundung River weekly.</li> <li>Bandung has more than 1,000 tons a day of waste is being landfilled. 750 tons/day is not collected. Surabaya generates 2,400 tons MSW. 1,200 tons/day landfilled.</li> </ol>	<p><b>Year 3</b></p> <ol style="list-style-type: none"> <li>3 mini-depos are established in selected areas.</li> <li>6 tons/week of plastic waste diverted from river dumping in East Java.</li> <li>6 tons/week of plastic waste diverted from river dumping in West Java.</li> </ol> <p><b>Year 4</b></p> <ol style="list-style-type: none"> <li>Additional 3 mini-depos are functioned.</li> <li>8 tons/week of plastic waste diverted from river dumping in East Java.</li> <li>8 tons/week of plastic waste diverted from river dumping in West Java.</li> </ol>	<p>final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.</p> <p>4.3. Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recycable plastics diverted from inadequate disposal.</p> <p>4.4. Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.</p>		
<p><b>Output 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation.</p> <p><b>Indicator:</b> M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</p> <p><b>Baseline:</b> No M&amp;E and adaptive management applied to project in response to project need.</p>	<p>M&amp;E is functioned throughout the project implementation.</p> <p><b>Year 1</b> A guidance for M&amp;E with gender consideration is prepared.</p> <p><b>Year 2</b> An M&amp;E is implemented in coordination with relevant sector.</p> <p><b>Year 3</b> An M&amp;E is implemented in coordination with relevant sector, and a lesson-learned is extracted.</p> <p><b>Year 4</b> An M&amp;E is implemented in coordination with relevant sector, and the extracted lesson-learned is shared. (Year 5: post project implementation - A final evaluation)</p>	<p><b>Activity Result 5: M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</b></p> <p><u>Activities:</u></p> <p>5.1 M&amp;E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs.</p> <p>5.2 Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally</p>	Ministry of Industry	100,000
<p><b>Output 6:</b> Project Management Unit</p> <p><b>Indicator:</b> Effective and efficient project management unit</p> <p><b>Baseline:</b></p>	<p>Effective and efficient project management unit (PMU) to ensure the process of project implementation.</p> <p><b>Year 1</b></p>	<p><b>Activity Results 6: Effective and efficient project management unit.</b></p> <p><u>Activities:</u></p> <p>6.1 The project personnel on board and the Project Management Unit (PMU) established.</p>	Ministry of Industry and UNDP	190,000

INTENDED OUTPUTS	OUTPUT TARGETS	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
No Project Management Unit is established.	NPM and Support personnel are recruited. <b>Year 2</b> Effective and efficient PMU. <b>Year 3</b> Effective and efficient PMU. <b>Year 4</b> Effective and efficient PMU.	6.2 The project implementation effectively and efficiently coordinated and monitored		
<b>TOTAL</b>				<b>3,990,000</b>

## IV. ANNUAL WORK PLAN (AWP)

### AWP Year 1: 2016

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 1:</b> Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices.</p> <p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Technical by-laws and guidelines on PBDE handling and management.</li> <li>2. National standard on maximum PBDE concentration in products.</li> <li>3. Functioning Extended Producer Responsibility (EPR) scheme for PBDE containing product groups.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>1. No technical by-laws and guidelines on PBDE handling and management.</li> <li>2. No national standard on the maximum use of PBDEs in a product.</li> <li>3. No EPR scheme for PBDE containing product groups.</li> </ol> <p><b>Target Year 1:</b></p> <ol style="list-style-type: none"> <li>1. A draft of specific technical by laws on PBDE handling and management is developed.</li> <li>2. A draft of specific national standard on the maximum PBDE concentration in products is developed.</li> <li>3. A draft of EPR is developed.</li> </ol>	<p><b>Activity Result 1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>1.1. Develop National Standard on maximum PBDE content in products placed in the market.</li> <li>1.2. Develop and integrate a policy/ regulatory framework for PDBE waste management in Solid Waste Management policy/ regulatory framework.</li> <li>1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.</li> <li>1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.</li> <li>1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal</li> <li>1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives</li> </ol>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	131,500
<p><b>Output 2.1:</b> Sufficient national technical expertise built to meet challenges with PBDEs in manufacturing and plastic raw material recycling.</p> <p><b>Indicators:</b></p> <p>Number of technical guidelines on the plastic production and recycling are developed.</p> <p><b>Baseline:</b></p>	<p><b>Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling.</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>2.1.1 Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing</li> <li>2.1.2. Sufficient in-country PDBE capacity built for selection and identification of suitable PBDE alternatives.</li> </ol>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	177,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>No technical guidelines on the plastic production and recycling.</p> <p><b>Target Year 1</b> A draft of technical guidelines and standard on the plastic production and recycling is developed.</p>									
<p><b>Output 2.2.:</b> PBDE releases to the environment from the manufacturing sector reduced through phase-out and introduction of PBDE avoiding quality control of raw material and awareness raising.</p> <p><b>Indicators:</b> Number of plastic manufacturers have comprehensive raw material checks for PBDEs.</p> <p><b>Baseline:</b> No checking has been undertaken to identify PBDEs in both virgin and recycled, raw materials.</p> <p><b>Target Year1</b> Three plastic manufacturers gain information on the danger of hazardous and toxic PBDEs and UPOPs through the implementation of workshops in Bekasi, Surabaya and Bandung.</p>	<p><b>Activity Result 2.2: PDDE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising</b></p> <p><u>Activities:</u> 2.2.1. Assistance for Quality assurance programmes for ensuring that PBDEs free plastic manufacturing 2.2.2. Communication and awareness raising</p>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 3.1:</b> Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BAP in the plastics recycling sector.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Gender disaggregated data on recyclers.</li> <li>Number of plastic recyclers whose capacity to identify PBDEs and process plastic waste to BAT/BEP is increased.</li> <li>Rudimentary techniques for plastic processing applied in plastic recycling clusters.</li> </ol>	<p><b>Activity Result 3.1: Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BAP in the plastics recycling sector</b></p> <p><u>Activities:</u> 3.1.1 (In) formal entities handling/ processing significant quantities of PBDEs containing plastics as well as PBDEs and UPOPs specific challenges these entities encountered, identified 3.1.2. Total four large scale formal and informal plastics recycling clusters Mojokerto (East Java) and Bekasi (West Java) areas entities supported in implementing BEP/BAT 3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT</p>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	376,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Unavailability data on gender-based recyclers.</li> <li>No plastic recyclers have capacity to identify PBDE and process plastic waste.</li> <li>No application of BAT/BEP in plastic recycling activities.</li> </ol> <p><b>Target Year1</b></p> <ol style="list-style-type: none"> <li>A gender disaggregated data on recyclers is collected.</li> <li>Three recycling companies are trained to understand the danger of hazardous and toxic PBDEs.</li> <li>A draft of technical guideline (BAT/BEP) for recycling sector is prepared.</li> </ol>									
<p><b>Output 3.2:</b> Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Tonnage of PBDE containing plastic separated and safely disposed.</li> <li>Technical guidelines to separate PBDE containing plastics.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>No data on PBDE containing plastics.</li> <li>Technical guidelines to separate PBDE containing plastics.</li> </ol> <p><b>Target Year1</b></p> <ol style="list-style-type: none"> <li>100 metric tons of PBDE containing plastic waste are separated and safely disposed.</li> <li>A draft of technical guidelines to eliminate UPOPs is prepared.</li> </ol>	<p><b>Activity Result 3.2: Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</b></p> <p><u>Activities:</u></p> <ol style="list-style-type: none"> <li>3.2.1. Develop technical guidelines to separate and eliminate UPOPs.</li> <li>3.2.2. Establish technical guidelines in coordination with relevant stakeholders.</li> <li>3.2.3. Conduct and establish regular re-collection systems (especially PBDE containing plastics).</li> <li>3.2.4. Ensure separation on PBDE containing plastics (waste).</li> <li>3.2.5. Dispose PBDE containing plastics in accordance with the guidelines.</li> </ol>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 4:</b> PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste</p>	<p><b>Activity Result 4: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</b></p>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops,</li> </ul>	117,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>collectors.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Number of mini-depos for waste separation established at communities.</li> <li>Tonnage of waste diverted from river dumping.</li> <li>Additional tonnage of MSW undergoing sanitary landfilling and waste to energy treatment in Surabaya and Bandung.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Limited number of demonstrated mini-depos in urban areas.</li> <li>10 tons/week of waste is dumped in Surabaya River. About 3 tons is dumped in Cikapundung River weekly.</li> <li>Bandung has more than 1,000 tons a day of waste is being landfilled. 750 tons/day is not collected. Surabaya generates 2,400 tons MSW. 1,200 tons/day landfilled.</li> </ol> <p><b>Target Year1</b></p> <ol style="list-style-type: none"> <li>1 mini depo is prepared for waste separation at community.</li> <li>1 ton/week of plastic waste diverted from river dumping in East Java.</li> <li>1 ton/week of waste diverted from river dumping in West Java</li> </ol>	<p><u>Activities:</u></p> <p>4.1. Total 4 municipalities/ local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.</p> <p>4.2. Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.</p> <p>4.3. Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recycable plastics diverted from inadequate disposal.</p> <p>4.4. Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.</p>						<ul style="list-style-type: none"> <li>Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>		
<p><b>Output 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation.</p> <p><b>Indicator:</b> M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</p> <p><b>Baseline:</b> No M&amp;E and adaptive management applied to project in response to project need.</p> <p><b>Target Year1</b> A guidance for M&amp;E is prepared.</p>	<p><b>Activity Result 5: M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</b></p> <p><u>Activities:</u></p> <p>5.1.M&amp;E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs</p> <p>5.2.Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally</p>		X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	11,000

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<b>Output 6:</b> Project Management Unit  <b>Indicator:</b> Effective and efficient project management unit  <b>Baseline:</b> No Project Management Unit is established.  <b>Target Year1</b> NPM and Support personnel are recruited.	<b>Activity Results 6: Effective and efficient project management unit.</b>  <u>Activities:</u> 6.1.The project personnel on board and the Project Management Unit (PMU) established. 6.2.The project implementation effectively and efficiently coordinated and monitored.		X	X	X	Ministry of Industry and UNDP	GEF	<ul style="list-style-type: none"> <li>• Contractual services – individual</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Communication</li> <li>• Equipment</li> <li>• Supplies</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	47,00
<b>TOTAL</b>								<b>861,000</b>	

## AWP Year 2: 2017

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 1:</b> Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices.</p> <p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Technical by-laws and guidelines on PBDE handling and management.</li> <li>2. National standard on maximum PBDE concentration in products.</li> <li>3. Functioning Extended Producer Responsibility (EPR) scheme for PBDE containing product groups.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>1. No technical by-laws and guidelines on PBDE handling and management.</li> <li>2. No national standard on the maximum use of PBDEs in a product.</li> <li>3. No EPR scheme for PBDE containing product groups.</li> </ol> <p><b>Target Year2:</b></p> <ol style="list-style-type: none"> <li>1. A specific technical by laws on PBDE handling and management is established.</li> <li>2. A specific national standard on the maximum PBDE concentration in products is established.</li> <li>3. 3 associations and 3 companies are consulted concerning the draft of EPR.</li> </ol>	<p><b>Activity Result 1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>1.1. Develop National Standard on maximum PBDE content in products placed in the market.</li> <li>1.2. Develop and integrate a policy/ regulatory framework for PDDE waste management in Solid Waste Management policy/ regulatory framework.</li> <li>1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.</li> <li>1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.</li> <li>1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal</li> <li>1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives</li> </ol>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	205,500



Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 2.1.:</b> Sufficient national technical expertise built to meet challenges with PBDEs in manufacturing and plastic raw material recycling.</p> <p><b>Indicators:</b> Number of technical guidelines on the plastic production and recycling are developed.</p> <p><b>Baseline:</b> No technical guidelines on the plastic production and recycling.</p> <p><b>Target Year2</b> A technical guideline and standard on the plastic production and recycling is established.</p>	<p><b>Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PBDEs in manufacturing and plastic raw material recycling.</b></p> <p><u>Activities</u> 2.1.1 Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing 2.1.2. Sufficient in-country PDBE capacity built for selection and identification of suitable PBDE alternatives</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	197,500
<p><b>Output 2.2.:</b> PBDE releases to the environment from the manufacturing sector reduced through phase-out and introduction of PBDE avoiding quality control of raw material and awareness raising.</p> <p><b>Indicators:</b> Number of plastic manufacturers have comprehensive raw material checks for PBDEs.</p> <p><b>Baseline:</b> No checking has been undertaken to identify PBDEs in both virgin and recycled, raw materials.</p> <p><b>Target Year2</b> Three more plastic manufacturers gain information on the danger of hazardous and toxic PBDEs and UPOPs.</p>	<p><b>Activity Result 2.2: PBDE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</b></p> <p><u>Activities:</u> 2.2.1. Assistance for Quality assurance programmes for ensuring that PBDEs free plastic manufacturing 2.2.2. Communication and awareness raising</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 3.1.:</b> Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</p> <p><b>Indicator:</b> 1. Gender-based segregated data on</p>	<p><b>Activity Result 3.1: Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</b></p> <p><u>Activities:</u> 3.1.1 (In) formal entities handling/ processing significant quantities of PBDEs containing plastics as</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print</li> </ul>	381,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>recyclers.</p> <p>2. Number of plastic recyclers whose capacity to identify PBDEs and process plastic waste to BAT/BEP is increased.</p> <p>3. Rudimentary techniques for plastic processing applied in plastic recycling clusters.</p> <p><b>Baseline:</b></p> <p>1. Unavailability data on gender-based recyclers.</p> <p>2. No plastic recyclers have capacity to identify PBDE and process plastic waste.</p> <p>3. No application of BAT/BEP in plastic recycling activities.</p> <p><b>Target Year2</b></p> <p>1. 3 capacity building programs that cover the interest of both men and women workers are undertaken.</p> <p>2. 3 more recycling companies gain understanding on the danger of hazardous and toxic PBDEs.</p> <p>3. A technical guideline (BAT/BEP) for recycling sector is established.</p>	<p>well as PBDEs and UPOPs specific challenges these entities encountered, identified</p> <p>3.1.2. Total four large scale formal and informal plastics recycling clusters Mojokerto (East Java) and Bekasi (West Java) areas entities supported in implementing BEP/BAT</p> <p>3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT</p>						<ul style="list-style-type: none"> <li>Prod Costs</li> <li>Miscellaneous</li> </ul>		
<p><b>Output 3.2:</b> Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chain as well as the introduction of environmentally sound disposal practices at recycling entities.</p> <p><b>Indicator:</b></p> <p>1. Tonnage of PBDE containing plastics separated and safely disposed.</p> <p>2. Technical guidelines to separate PBDE containing plastics.</p> <p><b>Baseline:</b></p> <p>1. No data on PBDE containing plastics.</p> <p>2. Technical guidelines to separate PBDE containing plastics.</p> <p><b>Target Year2</b></p> <p>1. 3 selected recycling companies are willing to join the programme to</p>	<p><b>Activity Result 3.2: Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</b></p> <p><u>Activities:</u></p> <p>3.2.1. Regular re-collection systems set-up for PBDEs containing plastics and waste fractions as well as unrecyclable plastics for adequate disposal.</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
reduce and phase-out UPOPs in their recycling practices. 2. A technical guideline established.									

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 4:</b> : Reducing releases of UPOPs and PBDEs from unsound plastic disposal practices</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Number of mini-depos for waste separation established at communities.</li> <li>Tonnage of waste diverted from river dumping.</li> <li>Additional tonnage of MSW undergoing sanitary landfilling and waste to energy treatment in Surabaya and Bandung.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Limited number of demonstrated mini-depos in urban areas.</li> <li>10 tons/week of waste is dumped in Surabaya River. About 3 tons is dumped in Cikapundung River weekly.</li> <li>Bandung has more than 1,000 tons a day of waste is being landfilled. 750 tons/day is not collected. Surabaya generates 2,400 tons MSW. 1,200 tons/day landfilled.</li> </ol> <p><b>Target Year2</b></p> <ol style="list-style-type: none"> <li>2 mini depos are prepared and technical guideline is established.</li> <li>4 tons/ week of plastic waste diverted from river dumping in East Java.</li> <li>4 tons/ week of plastic waste diverted from river dumping in West Java.</li> </ol>	<p><b>Activity Result 4: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</b></p> <p><u>Activities:</u></p> <ol style="list-style-type: none"> <li>Total 4 municipalities/ local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.</li> <li>Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.</li> <li>Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recycable plastics diverted from inadequate disposal.</li> <li>Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.</li> </ol>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	322,500
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Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation.</p> <p><b>Indicator:</b> M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</p> <p><b>Baseline:</b> No M&amp;E and adaptive management applied to project in response to project need.</p> <p><b>Target Year2</b> An M&amp;E is implemented in coordination with relevant sector.</p>	<p><b>Activity Result 5: Monitoring and Evaluation and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</b></p> <p><u>Activities:</u> 5.1 M&amp;E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs 5.2 Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	36,500
<p><b>Output 6:</b> Project Management Unit</p> <p><b>Indicator:</b> Effective and efficient project management unit</p> <p><b>Baseline:</b> No Project Management Unit is established.</p> <p><b>Target Year2</b> Effective and efficient PMU.</p>	<p><b>Activity Results 6: Effective and efficient project management unit.</b></p> <p><u>Activities:</u> 6.1. The project personnel on board and the Project Management Unit (PMU) established 6.2 The project implementation effectively and efficiently coordinated and monitored</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>Contractual services – individual</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Communication</li> <li>Equipment</li> <li>Supplies</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	48,000
<b>TOTAL</b>									<b>1,191,500</b>

## AWP Year 3: 2018

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 1:</b> Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices</p> <p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Technical by-laws and guidelines on PBDE handling and management.</li> <li>2. National standard on maximum PBDE concentration in products.</li> <li>3. Functioning Extended Producer Responsibility (EPR) scheme for PBDE containing product groups.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>1. No technical by-laws and guidelines on PBDE handling and management.</li> <li>2. No national standard on the maximum use of PBDEs in a product.</li> <li>3. No EPR scheme for PBDE containing product groups.</li> </ol> <p><b>Target Year3:</b></p> <ol style="list-style-type: none"> <li>1. 3 associations and 3 companies gain information regarding the dissemination on specific technical by laws.</li> <li>2. 3 associations and 3 companies gain information regarding the standard on the maximum PBDE concentration in products.</li> <li>3. 3 more companies are consulted regarding the draft of EPR.</li> </ol>	<p><b>Activity Result 1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>1.1. Develop National Standard on maximum PBDE content in products placed in the market.</li> <li>1.2. Develop and integrate a policy/ regulatory framework for PDBE waste management in Solid Waste Management policy/ regulatory framework.</li> <li>1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.</li> <li>1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.</li> <li>1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal</li> <li>1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives</li> </ol>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	172,500
		X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	
		X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 2.1.:</b> Reducing or eliminating the importation and use of PBDEs in plastics manufacturing</p> <p><b>Indicators:</b> Number of technical guidelines on the plastic production and recycling are developed</p> <p><b>Baseline:</b> No technical guidelines on the plastic production and recycling</p> <p><b>Target Year3</b> 3 associations of plastic manufacturing companies, 3 plastic manufacturing companies, and 2 plastic recycling companies gain information regarding the technical guidelines and standard on the plastic production and recycling.</p>	<p><b>Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling</b></p> <p><u>Activities</u> 2.1.1 Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing 2.1.2. Sufficient in-country PDBE capacity built for selection and identification of suitable PBDE alternatives</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	173,500
<p><b>Output 2.2.:</b> PDBE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</p> <p><b>Indicators:</b> Number of plastic manufacturers have comprehensive raw material checks for PBDEs.</p> <p><b>Baseline:</b> No checking has been undertaken to identify PBDEs in both virgin and recycled, raw materials.</p> <p><b>Target Year3</b> Three more selected companies are willing to join the programme to reduce and phase-out PBDEs in their production process.</p>	<p><b>Activity Result 2.2: PDBE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</b></p> <p><u>Activities:</u> 2.2.1. Assistance for Quality assurance programmes for ensuring that PBDEs free plastic manufacturing 2.2.2. Communication and awareness raising</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 3.1.:</b> Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</p>	<p><b>Activity Result 3.1: Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</b></p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops,</li> </ul>	354,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Gender-based segregated data on recyclers.</li> <li>Number of plastic recyclers whose capacity to identify PBDEs and process plastic waste to BAT/BEP is increased.</li> <li>Rudimentary techniques for plastic processing applied in plastic recycling clusters.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Unavailability data on gender-based recyclers.</li> <li>No plastic recyclers have capacity to identify PBDE and process plastic waste.</li> <li>No application of BAT/BEP in plastic recycling activities.</li> </ol> <p><b>Target Year3</b></p> <ol style="list-style-type: none"> <li>3 more selected companies that cover the interest of both women and men workers are willing to join the programme to reduce and phase-out PBDEs in their recycling practices.</li> <li>3 selected companies have tools to identify PBDEs and dispose PBDEs containing goods.</li> <li>The established technical guideline is integrated into 3 plastic recycling practices.</li> </ol>	<p><u>Activities:</u></p> <p>3.1.1 (In) formal entities handling/ processing significant quantities of PBDEs containing plastics as well as PBDEs and UPOPs specific challenges these entities encountered, identified</p> <p>3.1.2. Total four large scale formal and informal plastics recycling clusters Mojokerto (East Java) and Bekasi (West Java) areas entities supported in implementing BEP/BAT</p> <p>3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT</p>							<ul style="list-style-type: none"> <li>Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 3.2.:</b> Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chain as well as the introduction of environmentally sound disposal practices at recycling entities.</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Tonnage of PBDE containing plastic separated and safely disposed.</li> <li>Technical guidelines to separate PBDE containing plastics.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>No data on PBDE containing plastics.</li> <li>Technical guidelines to separate</li> </ol>	<p><b>Activity Result 3.2: Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</b></p> <p><u>Activities:</u></p> <p>3.2.1. Regular re-collection systems set-up for PBDEs containing plastics and waste fractions as well as unrecyclable plastics for adequate disposal.</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	



Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>PBDE containing plastics.</p> <p><b>Target Year3</b></p> <ol style="list-style-type: none"> <li>3 selected companies have tools to identify UPOPs and willingness to eliminate UPOPs in their practices established.</li> <li>The technical guideline is integrated into 3 plastic recycling practices.</li> </ol>									
<p><b>Output 4:</b> Reducing releases of UPOPs and PBDEs from unsound plastic disposal practices</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Number of mini-depos for waste separation established at communities.</li> <li>Tonnage of waste diverted from river dumping.</li> <li>Additional tonnage of MSW undergoing sanitary landfilling and waste to energy treatment in Surabaya and Bandung.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Limited number of demonstrated mini-depos in urban areas.</li> <li>10 tons/week of waste is dumped in Surabaya River. About 3 tons is dumped in Cikapundung River weekly.</li> <li>Bandung has more than 1,000 tons a day of waste is being landfilled. 750 tons/day is not collected. Surabaya generates 2,400 tons MSW. 1,200 tons/day landfilled.</li> </ol> <p><b>Target Year3</b></p> <ol style="list-style-type: none"> <li>3 mini-depos are established in selected areas.</li> <li>6 tons of plastic waste is diverted from river dumping in East Java.</li> <li>6 tons of plastic waste diverted from river dumping in West Java.</li> </ol>	<p><b>Activity Result 4: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</b></p> <p><u>Activities:</u></p> <p>4.1. Total 4 municipalities/ local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.</p> <p>4.2. Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.</p> <p>4.3. Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recycable plastics diverted from inadequate disposal.</p> <p>4.4. Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	347,500
<p><b>Output 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation.</p> <p><b>Indicator:</b></p>	<p><b>Activity Result 5: Monitoring and Evaluation and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</b></p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> </ul>	11,000

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</p> <p><b>Baseline:</b> No M&amp;E and adaptive management applied to project in response to project need.</p> <p><b>Target Year3</b> An M&amp;E is implemented in coordination with relevant sector, and a lesson-learned is extracted.</p>	<p><u>Activities:</u> 5.1. M&amp;E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs. 5.2. Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally</p>							<ul style="list-style-type: none"> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	
<p><b>Output 6:</b> Project Management Unit</p> <p><b>Indicator:</b> Effective and efficient project management unit</p> <p><b>Baseline:</b> No Project Management Unit is established.</p> <p><b>Target Year3</b> Effective and efficient PMU.</p>	<p><b>Activity Results 6: Effective and efficient project management unit.</b></p> <p><u>Activities:</u> 6.1. The project personnel on board and the Project Management Unit (PMU) established 6.2. The project implementation effectively and efficiently coordinated and monitored</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• Contractual services – individual</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Communication</li> <li>• Equipment</li> <li>• Supplies</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	47,000
<b>TOTAL</b>									<b>1,106,000</b>

**AWP Year 4: 2019**

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 1:</b> Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices</p> <p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Technical by-laws and guidelines on PBDE handling and management.</li> <li>2. National standard on maximum PBDE concentration in products.</li> <li>3. Functioning Extended Producer Responsibility (EPR) scheme for PBDE containing product groups.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>1. No technical by-laws and guidelines on PBDE handling and management.</li> <li>2. No national standard on the maximum use of PBDEs in a product.</li> <li>3. No EPR scheme for PBDE containing product groups.</li> </ol> <p><b>Target Year4:</b></p> <ol style="list-style-type: none"> <li>1. 3 local government agencies, 3 community-based organizations (CBOs)/ non-government organizations (NGOs), and 3 more companies located in 3 provinces gain information concerning the implementation of specific technical by laws on PBDE handling and management.</li> <li>2. 3 local government agencies, 3 CBOs/ NGOs and 3 more companies gain information regarding the implementation of the national standard on the maximum use of PBDE in products.</li> <li>3. 3 local government agencies, 3 community-based organizations (CBOs)/ non-government organizations (NGOs), and 3 more companies located in 3 provinces gain information regarding the implementation of EPR.</li> </ol>	<p><b>Activity Result 1: Reduced PBDEs and UPOPs releases resulting from unsound waste management practices through the adoption and implementation of standards/measures, policies, plans and regulations</b></p> <p><u>Activities</u></p> <ol style="list-style-type: none"> <li>1.1. Develop National Standard on maximum PBDE content in products placed in the market.</li> <li>1.2. Develop and integrate a policy/ regulatory framework for PDBE waste management in Solid Waste Management policy/ regulatory framework.</li> <li>1.3. Adopt technical by-laws, regulations and guidance aiming to reduce UPOPs/PBDE releases from plastics manufacturing, recycling and disposal practices.</li> <li>1.4. Develop regulatory and policy framework pertaining to the import of PBDE and PBDE containing products and wastes and material with technical guideline for PBDEs and UPOPs reductions/elimination from waste process.</li> <li>1.5. Increase institutional and technical capacity to control the import of material streams potentially containing PBDEs, including policies for inspecting and monitoring PBDEs disposal</li> <li>1.6. Remove barriers to BAT/BEP implementation through economic instruments and incentives</li> </ol>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	117,500
		X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	
		X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>• International consultant</li> <li>• Local consultant</li> <li>• Contractual services – companies</li> <li>• Travel</li> <li>• Training, Workshops, Conferences</li> <li>• Audio Visual and Print Prod Costs</li> <li>• Miscellaneous</li> </ul>	

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Output 2.1.:</b> Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling.</p> <p><b>Indicators:</b> Number of technical guidelines on the plastic production and recycling are developed</p> <p><b>Baseline:</b> No technical guidelines on the plastic production and recycling</p> <p><b>Target Year4</b> 3 more plastic manufacturing companies and 2 plastic recycling companies receive information regarding the technical guidelines and standard of the plastic production and recycling.</p>	<p><b>Activity Result 2.1: Sufficient national technical expertise built to meet challenges with PDBEs in manufacturing and plastic raw material recycling</b></p> <p><u>Activities</u> 2.1.1. Detailed data analysis on PBDEs imported, handled and applied in plastics manufacturing 2.1.2. Sufficient in-country PBDE capacity built for selection and identification of suitable PBDE alternatives</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	119,500
<p><b>Output 2.2.:</b> PDBE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</p> <p><b>Indicators:</b> Number of plastic manufacturers have comprehensive raw material checks for PBDEs.</p> <p><b>Baseline:</b> No checking has been undertaken to identify PBDEs in both virgin and recycled, raw materials.</p> <p><b>Target Year4</b> Three more selected companies have tools to identify PBDEs</p>	<p><b>Activity Result 2.2: PDBE releases to the environment from the manufacturing sector reduced through phase out and introduction of PBDE avoiding quality control of raw material and awareness raising.</b></p> <p><u>Activities:</u> 2.2.1. Assistance for Quality assurance programmes for ensuring that PBDEs free plastic manufacturing 2.2.2. Communication and awareness raising</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 3.1.:</b> Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</p> <p><b>Indicator:</b> 1. Gender-based segregated data on</p>	<p><b>Activity Result 3.1: Reduced releases of PBDEs as a result of improved handling, storage, recycling and disposal of PBDEs containing wastes and products through the introduction of BAT/BEP in the plastics recycling sector.</b></p> <p><u>Activities:</u> 3.1.1 (In) formal entities handling/ processing significant quantities of PBDEs containing plastics as</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print</li> </ul>	392,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p>recyclers.</p> <p>2. Number of plastic recyclers whose capacity to identify PBDEs and process plastic waste to BAT/BEP is increased.</p> <p>3. Rudimentary techniques for plastic processing applied in plastic recycling clusters.</p> <p><b>Baseline:</b></p> <p>1. Unavailability data on gender-based recyclers.</p> <p>2. No plastic recyclers have capacity to identify PBDE and process plastic waste.</p> <p>3. No application of BAT/BEP in plastic recycling activities.</p> <p><b>Target Year4</b></p> <p>1. 3 more selected companies are willing to join the programme to reduce and phase-out PBDEs in their recycling practices.</p> <p>2. 3 more selected companies have tools to identify PBDEs and willingness to dispose PBDEs containing goods.</p> <p>3. The established technical guideline is integrated into 3 more plastic recycling practices.</p>	<p>well as PBDEs and UPOPs specific challenges these entities encountered, identified</p> <p>3.1.2. Total four large scale formal and informal plastics recycling clusters Mojokerto (East Java) and Bekasi (West Java) areas entities supported in implementing BEP/BAT</p> <p>3.1.3. Total 6 medium scale informal plastics recycling entities, at both recycling clusters supported in implementing BEP/BAT</p>						<ul style="list-style-type: none"> <li>Prod Costs</li> <li>Miscellaneous</li> </ul>		
<p><b>Output 3.2.:</b> Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</p> <p><b>Indicator:</b></p> <p>1. Tonnage of PBDE containing plastic separated and safely disposed.</p> <p>2. Technical guidelines to separate PBDE containing plastics.</p> <p><b>Baseline:</b></p> <p>1. No data on PBDE containing plastics.</p> <p>2. Technical guidelines to separate PBDE containing plastics.</p> <p><b>Target Year4</b></p>	<p><b>Activity Result 3.2: Reduced releases of UPOPs as a result of improved raw material (recycled plastics) supply chains as well as the introduction of environmentally sound disposal practices at recycling entities.</b></p> <p><u>Activities:</u></p> <p>3.2.1. Regular re-collection systems set-up for PBDEs containing plastics and waste fractions as well as unrecyclable plastics for adequate disposal.</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<ol style="list-style-type: none"> <li>3 more selected companies are willing to join the programme to reduce and phase-out UPOPs in their recycling practices.</li> <li>The established technical guideline is integrated into 3 more plastic recycling practices.</li> </ol>									
<p><b>Output 4:</b> Reducing releases of UPOPs and PBDEs from unsound plastic disposal practices</p> <p><b>Indicator:</b></p> <ol style="list-style-type: none"> <li>Number of mini-depos for waste separation established at communities.</li> <li>Tonnage of waste diverted from river dumping.</li> <li>Additional tonnage of MSW undergoing sanitary landfilling and waste to energy treatment in Surabaya and Bandung.</li> </ol> <p><b>Baseline:</b></p> <ol style="list-style-type: none"> <li>Limited number of demonstrated mini-depos in urban areas.</li> <li>10 tons/week of waste is dumped in Surabaya River. About 3 tons is dumped in Cikapundung River weekly.</li> <li>Bandung has more than 1,000 tons a day of waste is being landfilled. 750 tons/day is not collected. Surabaya generates 2,400 tons MSW. 1,200 tons/day landfilled.</li> </ol> <p><b>Target Year 4</b></p> <ol style="list-style-type: none"> <li>Additional 3 mini-depos are functioned.</li> <li>8 tons/ week of plastic waste diverted from river dumping in East Java.</li> <li>8 tons/ week of plastic waste diverted from river dumping in West Java.</li> </ol>	<p><b>Activity Result 4: PBDEs and UPOPs releases to the environment reduced through the implementation of appropriate disposal options for hazardous and unrecyclable plastic waste fractions from both formal and informal recyclers and waste collectors.</b></p> <p><u>Activities:</u></p> <ol style="list-style-type: none"> <li>Total 4 municipalities/ local governments in Surabaya and Bandung area supported in designating disposal options for PBDEs-containing and unrecyclable plastic waste fractions' putting in place mitigation measures to avoid/reduce harmful releases to waters, particularly ocean bound river systems.</li> <li>Appropriate municipal waste separation and collection schemes, feasible logistical arrangements, including proper waste acceptance and outbound material criteria, and solution for final disposal of unrecyclable plastic waste fractions (fitting both the needs of formal and informal recyclers/processors) developed and set-up.</li> <li>Recycling chains for local markets further developed, recycling rates increased and maximum quantities of recyclable plastics diverted from inadequate disposal.</li> <li>Designated PBDEs acceptance/disposal "points" staff trained in best approaches to reducing harmful releases and exposure at disposal sites.</li> </ol>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	112,500
<p><b>Output 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation.</p>	<p><b>Activity Result 5: Monitoring and Evaluation and adaptive management applied to project in response</b></p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>International consultant</li> <li>Local consultant</li> </ul>	41,500

Expected Output	Planned Activities	Time Frame				Responsible Party	Planned Budget		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (USD)
<p><b>Indicator:</b> M&amp;E and adaptive management applied to project in response to needs, mid-term evaluation findings with lessons learned extracted.</p> <p><b>Baseline:</b> No M&amp;E and adaptive management applied to project in response to project need.</p> <p><b>Target Year4</b> An M&amp;E is implemented in coordination with relevant sector, and the extracted lesson-learned is shared. (Year 5: post project implementation - A final evaluation).</p>	<p><b>to needs, mid-term evaluation findings with lessons learned extracted.</b></p> <p><u>Activities:</u> 5.1. M&amp;E and adaptive management are applied to provide feedback to the project coordination process to capitalize on the project needs. 5.2. Lessons learned and best practices are accumulated, summarized and replicated at the country level and disseminated internationally</p>							<ul style="list-style-type: none"> <li>Contractual services – companies</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	
<p><b>Output 6: Project Management Unit</b></p> <p><b>Indicator:</b> Effective and efficient project management unit</p> <p><b>Baseline:</b> No Project Management Unit is established.</p> <p><b>Target Year4</b> Effective and efficient PMU.</p>	<p><b>Activity Results 6: Effective and efficient project management unit.</b></p> <p><u>Activities:</u> 6.1. The project personnel on board and the Project Management Unit (PMU) established 6.2. The project implementation effectively and efficiently coordinated and monitored</p>	X	X	X	X	Ministry of Industry	GEF	<ul style="list-style-type: none"> <li>Contractual services – individual</li> <li>Travel</li> <li>Training, Workshops, Conferences</li> <li>Communication</li> <li>Equipment</li> <li>Supplies</li> <li>Audio Visual and Print Prod Costs</li> <li>Miscellaneous</li> </ul>	48,000
<b>TOTAL</b>									<b>831,500</b>

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## V. MANAGEMENT ARRANGEMENTS

### IMPLEMENTING PARTNER

At the national level, the Director of Basic Chemical Industry, Directorate General of Manufacturing Industry Basis, Ministry of Industry will act as the Implementing Partner (also referred to as Project Executive) of the project. The Director General of Manufacturing Industry Basis, Ministry of Industry will appoint the presence of a National Project Director (NPD) and Deputy National Project Director (DNPD).

### PROJECT BOARD (PB)

The PB is responsible for making management decisions for a project in particular when strategic guidance and decisions are required. The PB plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Coordinator and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans.

The PB consists of (1) the Project Executive, i.e. the National Project Director (Director level of Ministry of Industry); (2) the Beneficiaries, i.e. representatives of directorates of relevant ministries (Ministry of Industry, Ministry of Environment and Forestry, Ministry of Trade, Customs), associations, industries and NGOs; and (3) the Supplier, i.e. UNDP will provide management decisions when guidance is required by the Project Manager. The Project Board will have final authority on matters requiring official review and approval, including annual work plans, budgets, and key hires.

The Board contains three distinct roles, including:

- 1) **An Executive:** individual representing the project ownership to chair the group (Ministry of Industry).
- 2) **Senior Supplier:** individual or group representing the interests of the parties concerned that provide funding for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project [UNDP and/or Donor].
- 3) **Senior Beneficiary:** individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.

Broader constituency members included in the Project Board are:

- (1) Ministry of Industry - Chair
- (2) National Development Planning Agency (BAPPENAS)
- (3) Ministry of Environment and Forestry
- (4) Ministry of Health
- (5) Ministry of Finance
- (6) Agency for the Assessment and Application of Technology (BPPT)
- (7) Indonesian Association of Aromatic, Olefin and Plastics Industries (INAPLAS)
- (8) Association of Downstream Plastics Industries (APHINDO)
- (9) Nation-wide environment organizations



There will be two provincial pilot areas working on project Components 3 and 4. The two pilot areas will be in Surabaya and Bandung. The project will work together with local government agencies, companies that work on plastic waste and plastic recycling activities as well as non-governmental organizations (NGOs) and community groups active in waste and recycling activities.

#### PROJECT ASSURANCE

UNDP Country Office Indonesia will be responsible for ensuring transparency and appropriate financial conduct. This office will oversee annual financial audits, as well as the execution of independent Project Midterm and Terminal Evaluations. All financial transactions and agreements, including contracts with staff and consultants, will follow the rules and regulations of UNDP. The UNDP Regional Coordinating Unit will provide regular programmatic and administrative oversight also.

The Project Assurance role supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The roles of Project Manager and Project Assurance should never be held by the same individual for the same project.

#### NATIONAL PROJECT DIRECTOR (NPD)

The National Project Director will be [TITLE OF GOVERNMENT OFFICIAL ASSIGNED BY THE IP], and will be responsible for coordinating project activities among main stakeholders. The responsibilities of the NPD include ensuring that the project document and project revisions are approved by the GoI and processed through the Government co-coordinating authority in accordance with established procedures. The NPD also provides direction and guidance on project-related matters, and ensures that the [NAME OF THE PROJECT] is closely aligned with national priorities. Furthermore, the NPD makes efforts to integrate [NAME OF THE PROJECT] with key decision making procedures so that the results of the [NAME OF THE PROJECT] will be sustained and replicated beyond the project lifecycle.

*The project structure is represented in Figure 2.*

#### PROJECT MANAGEMENT UNIT (PMU)

A professional Project Management Unit (PMU), which consists of technical experts and administrative personnel, will be recruited. Under the overall direction of the NPD and day-to-day guidance of the Project Manager, they will be responsible for the day-to-day implementation of the project activities. The Project Manager and Project Management Unit are accountable to the NPD for sound administrative and financial management of the project as well as effective delivery of project activities. Accountabilities of project management are formally presented to the NPD by timely completion of annual and quarterly workplans and reports with required supporting documents.

#### NATIONAL PROJECT MANAGER (NPM)

The National Project Manager is responsible for running the day-to-day coordination of the project in close coordination with the NPD/DNPD. S/he ensures that the project produces the results specified in the project document to the required standard of quality and within the specified constraints of time and cost. The NPM will be recruited and will report administratively and programmatically to the Project Board. The person will assist in preparing progress reports in a timely and required manner, and provide the information needed for disbursement of funds.

The day-to-day activities of the project will be coordinated by a National Project Manager (NPM) and Project Assistant (PA) who will be hired immediately upon project commencement. They will work under the support and direct oversight of the Implementing Partner (Ministry of Industry). National

and international consultant services, including the contracted services of firms as well as individuals, will be engaged across all components in various technical areas, including policy and standards development, waste management programme development and implementation, market assessment, education and outreach, and demonstration project design, implementation, and evaluation.

The project will be executed through the National Implementation Modality (NIM) following relevant Government regulations after UNDP Country Office in Indonesia receives the Delegation of Authority (DoA) for the implementation. The project will be implemented by the Ministry of Industry.

In compliance with the Government regulation, the Project Document (prodoc) will be signed together by Ministry of Finance, Ministry of Industry and UNDP. The signed prodoc will serve as a Grant Agreement between the Government of Indonesia (GoI) and UNDP. The Implementing Partner (the Ministry of Industry) is responsible and accountable for managing the project, including the monitoring and evaluation of project interventions, and achieving project outputs, and for the effective use of project resources. The transfer of financial resources is done in accordance with the Harmonized Approach to Cash Transfer (HACT) mechanism, which identifies the following four cash transfer modalities:

1. Direct Cash Transfers to the Implementing Partner, for obligations and expenditures to be made in support of activities;
2. Direct Payments to vendors and other third parties, for obligations incurred by the Implementing Partners;
3. Reimbursement to the Implementing Partner for obligations made and expenditure incurred in support of activities;
4. Direct Agency Implementation through which UNDP makes obligations and incurs expenditure in support of activities (Country Office Support Services – COSS).

UNDP has consulted with the Implementing Partner (the Director General for Manufacturing Based Industry) and agreed to adopt the Direct Agency Implementation or COSS as the most appropriate cash transfer modality for some services as specified in the LoA. Therefore, UNDP shall act as the Responsible Party to obtain goods and services required in the implementation of the project.

Under the COSS arrangement, UNDP will be responsible for (i) the identification and recruitment of project and programme personnel, (ii) procurement of goods and services, (iii) provision of administrative support required to deliver the outputs. In providing these services, UNDP will apply its rules and regulations. The Support Services and conditions attached to them are described in the Letter of Agreement for UNDP Support Services in Annex E. Services provided by the UNDP Country Office, including those through the COSS modality, will be subject to audit by UNDP's external (the United Nations Board of Auditors) and/or internal auditors (UNDP's Office of Audit and Investigation).

UNDP will provide technical guidance, administrative and managerial support and oversight to the project. A National Project Director will be appointed by the Implementing Partner to oversee and provide appropriate guidance to the UNDP-Project Management Unit, which will manage day to day activities of the project. However, the Implementing Partner will retain overall ownership of the programme, including authority to provide strategic guidance and to endorse the project Annual Work Plan.

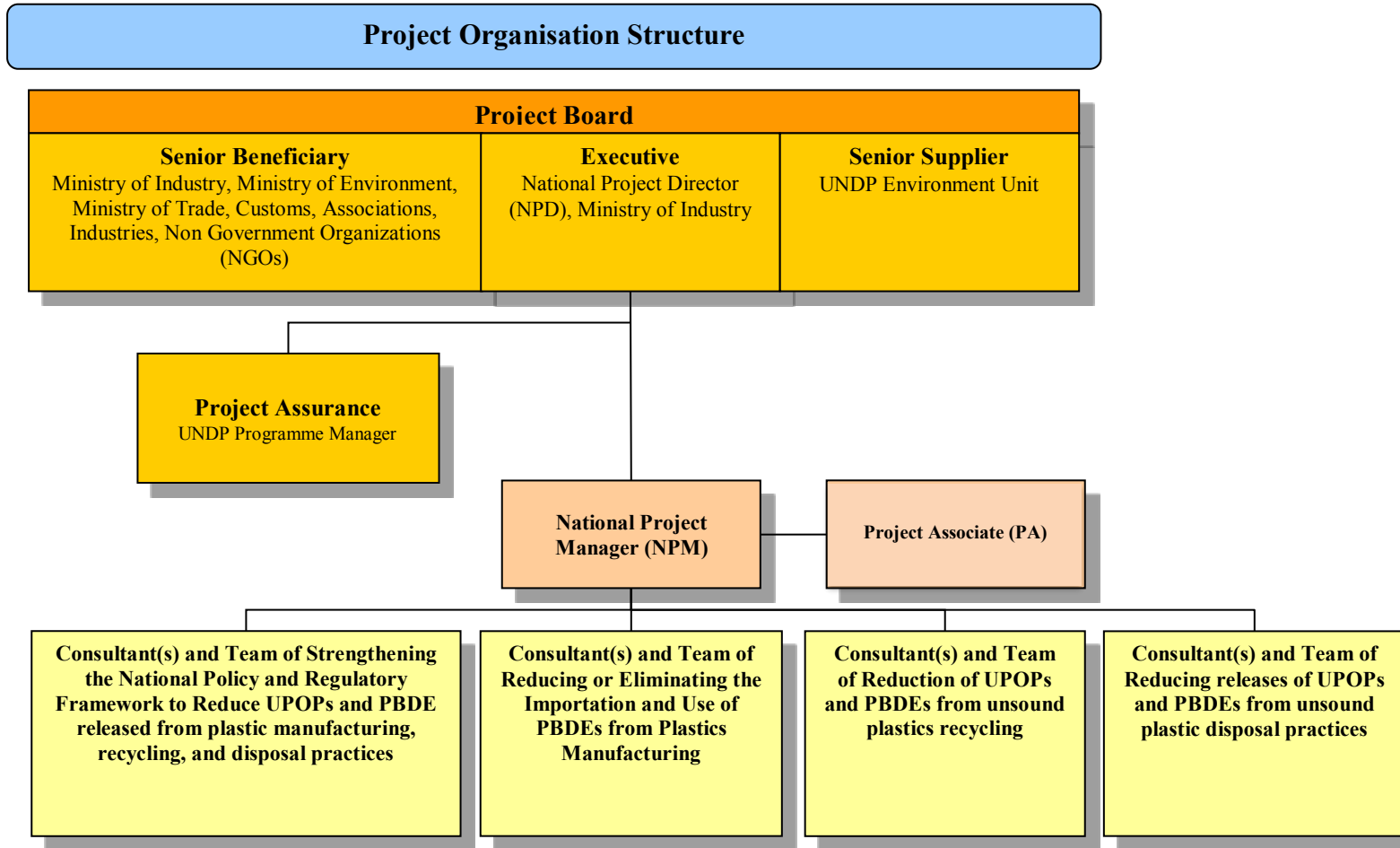
With respect to the Government of Indonesia's reporting procedures on grant realization on, UNDP shall prepare the Minutes of Handover (Berita Acara Serah Terima – BAST) of Goods and Services to be signed jointly by UNDP and the Implementing Partner's Authorized Budget Owner (Kuasas Pengguna Anggaran - KPA). This will be submitted by the Implementing Partner to the Directorate General of Budget Financing and Risk Management (Direktorat Jenderal Pengelolaan Pembiayaan dan Risiko – DJPPR) and the State Treasury Service Office (Kantor Pelayanan Pembendaharaan

Negara – KPPN) under the Directorate General of Treasury (Direktorat Jenderal Perbendaharaan) of the Ministry of Finance.

OUTPUT-BASED CONSULTANTS

In order to ensure the achievements of targeted components, the Project Management Unit will be assisted by, at least, the presence of a number of relevant consultants focusing on national policy and regulatory framework, plastics manufacturing, plastics recycling, plastics disposal practices, and other relevant consultants.

**Figure 3: Project Management Structure**



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## VI. MONITORING FRAMEWORK AND EVALUATION

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

### Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- A project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

### Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Project Review.** Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

The project will be monitored through these following activities:

### PROJECT START

A Project Inception Workshop will be held within the first two months of project start with those with assigned roles in the project organization structure, UNDP CO 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:

- (1) Assist all partners to fully understand and take ownership of the project.
- (2) Detail the roles, support services and complementary responsibilities of UNDP CO and Regional Centre 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.

- (3) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- (4) 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.
- (5) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- (6) Plan and schedule Project Steering Committee meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Steering Committee 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

- (1) Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- (2) 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. Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- (3) 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 not limited to, reporting on the following:

- (1) Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- (2) Project outputs delivered per project outcome (annual).
- (3) Lesson learned/good practice.
- (4) AWP and other expenditure reports
- (5) Risk and adaptive management
- (6) ATLAS QPR
- (7) Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

#### PERIODIC MONITORING THROUGH SITE VISITS

UNDP CO and/or UNDP RC 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. After the visit, a Field Visit Report/ Back to Office Report (BTOR) will be prepared by the CO and/or UNDP RC 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 (approximately at the end of 2016). 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 UNDP Regional Centre and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Centre (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

#### 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 UNDP Regional Centre 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 Centre (ERC).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

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.

#### 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 through lessons learned. The project will identify, analyse, 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](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](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.

### Monitoring Framework and Evaluation, and Budget

<i>Type of M&amp;E activity</i>	<i>Responsible Parties</i>	<i>Budget (US\$)</i> <i>(excluding project staff time; all figures are indicative)</i>	<i>Time frame</i>
Inception Workshop (IW) & associated arrangements	<ul style="list-style-type: none"> <li>▪ Project Manager (PM)</li> <li>▪ UNDP CO</li> </ul>	3,500	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> <li>▪ Project Team</li> <li>▪ UNDP CO</li> <li>▪ National and international consultant support if needed</li> </ul>	0 (included in routine project staff activity)	Immediately following IW
APR/PIR	<ul style="list-style-type: none"> <li>▪ M&amp;E team</li> <li>▪ PM</li> <li>▪ UNDP CO</li> </ul>	9,000 (included in routine project staff activity)	Annually
Meetings of Steering Committee and relevant meeting proceedings (minutes)	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ Regional advisory boards</li> <li>▪ National implementing partner</li> </ul>	6,000	PSC at least once a year, ideally immediately following Regional Advisory Board meetings
Quarterly status reports	<ul style="list-style-type: none"> <li>▪ M&amp;E team</li> </ul>	10,000 (included in routine project staff activity)	To be determined by Project team and UNDP CO
Technical monitoring, evaluation, and reporting within project components.	<ul style="list-style-type: none"> <li>▪ Project team</li> <li>▪ National and international consultants as needed</li> </ul>	0 (included in routine project staff and counterpart activity)	Continuous, starting from project inception
Midterm Evaluation (external)	<ul style="list-style-type: none"> <li>▪ Project team</li> <li>▪ UNDP CO</li> <li>▪ UNDP/GEF RCU</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	15,000	At the midpoint of project implementation.
Final Evaluation (external)	<ul style="list-style-type: none"> <li>▪ External Consultants (i.e. evaluation team)</li> <li>▪ Project team</li> <li>▪ UNDP CO</li> <li>▪ UNDP/GEF RCU</li> </ul>	35,000	At the end of project implementation



<i>Type of M&amp;E activity</i>	<i>Responsible Parties</i>	<i>Budget (US\$)</i> <i>(excluding project staff time; all figures are indicative)</i>	<i>Time frame</i>
Final Report	<ul style="list-style-type: none"> <li>▪ External Consultant</li> <li>▪ Project team</li> <li>▪ UNDP CO</li> </ul>	(costs included in Terminal Evaluation, above)	At least one month before the end of the project
Compilation of lessons learned	<ul style="list-style-type: none"> <li>▪ M&amp;E team</li> <li>▪ Project team</li> <li>▪ UNDP CO</li> <li>▪ UNDP/GEF RCU</li> </ul>	9,000	Annually
Financial audit	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ Project team</li> <li>▪ External auditors</li> </ul>	6,000	Annually
Visits to field sites	<ul style="list-style-type: none"> <li>▪ PM</li> <li>▪ UNDP CO</li> <li>▪ UNDP/GEF RCU (as appropriate)</li> <li>▪ National implementing partner</li> </ul>	6,500	Annually or more frequently
<b>TOTAL INDICATIVE COST</b>	(Excluding project team staff time and UNDP staff and travel expenses)	<b>100,000</b>	

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## **VII. LEGAL CONTEXT**

This document, together with the CPAP, which was signed by the GOI and UNDP and is incorporated by reference, constitutes a Project Document as referred to in the SBAA. All CPAP provisions apply to this document.

Consistent with the Article III of the SBAA, 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 into 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 out; 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 herein 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 herein 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.

### **Audit Clause**

The GOI will provide the Resident Representative/ Country Director with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The audit will be conducted according to UNDP's financial regulations, rules, and audit policies by the legally recognized auditor of the GOI, or by a commercial auditor engaged by the GOI.

## VIII. ANNEXES

### ANNEX A: Total Budget and Work Plan

NOTE: to anticipate the delay of the project implementation, it is necessary for UNDP to prepare and cover the cost of a pre-inception (or inception workshop) in advance prior to the official project document signing. It will provide an opportunity for the project to adjust (reimburse) the cost later after the project is officially signed and implemented.

<b>Award ID:</b>	00083160	<b>Project ID:</b>	00091789
<b>Award Title:</b>	FSP Reducing PBDE and UPOPs		
<b>Business Unit:</b>	IDN10		
<b>Project Title:</b>	Reducing Releases of PBDEs and UPOPs originating from unsound waste management, recycling and manufacturing of plastics in Indonesia		
<b>PIMS no.</b>	5073		
<b>Implementing Partner :</b>	Ministry of Industry		

GEF Outcome/Atlas Activity	Implementing Partner :	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
<b>Component 1:</b> Strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastics manufacturing, recycling and disposal practices	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71200	International consultants	30,000	30,000	0	0	60,000	1
				71300	Local consultants	50,000	100,000	100,000	50,000	300,000	2
				72100	Contractual services - companies	13,000	13,000	13,000	13,000	52,000	3
				71600	Travel	20,000	20,000	12,000	12,000	64,000	4
				75700	Trainings, Workshops, Conferences	11,000	25,000	30,000	25,000	91,000	5
				74200	Audio Visual & Print Prod Costs	5,000	15,000	15,000	15,000	50,000	6
				74500	Miscellaneous	2,500	2,500	2,500	2,500	10,000	7
					<b>sub-total GEF</b>	<b>131,500</b>	<b>205,500</b>	<b>172,500</b>	<b>117,500</b>	<b>627,000</b>	
	<b>Total Outcome 1</b>	<b>131,500</b>	<b>205,500</b>	<b>172,500</b>	<b>117,500</b>	<b>627,000</b>					
<b>Component 2:</b> Reduce or eliminate the importation and use of PBDEs from plastics manufacturing.	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71200	International consultants	25,000	25,000	25,000	0	75,000	1
				71300	Local consultants	80,000	80,000	80,000	80,000	320,000	2
				72100	Contractual services - companies	25,000	50,000	30,000	20,000	125,000	3
				71600	Travel	15,000	10,000	15,000	5,000	45,000	4
				75700	Trainings, Workshops, Conferences	20,000	20,000	15,000	6,000	61,000	5
				74200	Audio Visual & Print Prod Costs	10,000	10,000	6,000	6,000	32,000	6
				74500	Miscellaneous	2,500	2,500	2,500	2,500	10,000	7
					<b>sub-total GEF</b>	<b>177,500</b>	<b>197,500</b>	<b>173,500</b>	<b>119,500</b>	<b>668,000</b>	
	<b>Total Outcome 2</b>	<b>177,500</b>	<b>197,500</b>	<b>173,500</b>	<b>119,500</b>	<b>668,000</b>					

GEF Outcome/Atlas Activity	Implementing Partner :	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
<b>Component 3:</b> Reduction of UPOPs and PDBEs from unsound plastics recycling	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71200	International consultants	25,000	15,000	0	0	40,000	1
				71300	Local consultants	100,000	100,000	100,000	100,000	400,000	2
				72100	Contractual services - companies	100,000	100,000	100,000	150,000	450,000	3
				72100	Contractual services - companies	85,000	100,000	100,000	100,000	385,000	4
				71600	Travel	20,000	20,000	10,000	10,000	60,000	5
				75700	Trainings, Workshops, Conferences	24,000	24,000	22,000	20,000	90,000	6
				74200	Audio Visual & Print Prod Costs	20,000	20,000	20,000	10,000	70,000	7
				74500	Miscellaneous	2,500	2,500	2,500	2,500	10,000	8
					<b>sub-total GEF</b>	<b>376,500</b>	<b>381,500</b>	<b>354,500</b>	<b>392,500</b>	<b>1,505,000</b>	
	<b>Total Outcome 3</b>	<b>376,500</b>	<b>381,500</b>	<b>354,500</b>	<b>392,500</b>	<b>1,505,000</b>					
<b>Component 4:</b> Reducing releases of UPOPs and PBDEs from unsound plastic disposal practices	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71200	International consultants	25,000	0	25,000	0	50,000	1
				71300	Local consultants	25,000	40,000	40,000	40,000	145,000	2
				72100	Contractual services - companies	40,000	250,000	250,000	50,000	590,000	3
				71600	Travel	10,000	5,000	10,000	5,000	30,000	4
				75700	Trainings, Workshops, Conferences	5,000	10,000	5,000	10,000	30,000	5
				74200	Audio Visual & Print Prod Costs	10,000	15,000	15,000	5,000	45,000	6
				74500	Miscellaneous	2,500	2,500	2,500	2,500	10,000	7
					<b>sub-total GEF</b>	<b>117,500</b>	<b>322,500</b>	<b>347,500</b>	<b>112,500</b>	<b>900,000</b>	
					<b>Total Outcome 4</b>	<b>117,500</b>	<b>322,500</b>	<b>347,500</b>	<b>112,500</b>	<b>900,000</b>	
<b>Component 5:</b> Monitoring, learning, adaptive feedback, outreach, and evaluation	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71200	International consultants	0	15,000	0	20,000	35,000	1
				71300	Local consultants	0	13,000	0	13,000	26,000	2
				74100	Audit	3,000	3,500	3,000	1,500	11,000	3
				71600	Travel	1,500	1,500	1,500	3,500	8,000	4
				75700	Trainings, Workshops, Conferences	5,000	2,000	5,000	2,000	14,000	5
				74500	Miscellaneous	1,500	1,500	1,500	1,500	6,000	6
					<b>sub-total GEF</b>	<b>11,000</b>	<b>36,500</b>	<b>11,000</b>	<b>41,500</b>	<b>100,000</b>	
					<b>Total Outcome 5</b>	<b>11,000</b>	<b>36,500</b>	<b>11,000</b>	<b>41,500</b>	<b>100,000</b>	
<b>Project management unit</b>	<b>Ministry of Industry</b>	<b>62000</b>	<b>GEF</b>	71400	Contractual services - Indiv	22,000	22,000	22,000	22,000	88,000	1
				71400	Contractual services - Indiv	10,000	10,000	10,000	10,000	40,000	2
				71600	Travel	4,000	4,000	4,000	4,000	16,000	3
				72400	Communic & Audio Visual Equip	2,000	2,500	2,000	2,500	9,000	4
				72500	Supplies	1,500	2,000	1,500	2,000	7,000	5
				74500	Miscellaneous	1,500	1,500	1,500	1,500	6,000	6

GEF Outcome/Atlas Activity	Implementing Partner :	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
	UNDP			74599	UNDP Cost Recovery Charges	6,000	6,000	6,000	6,000	24,000	7
					<b>sub-total GEF</b>	<b>47,000</b>	<b>48,000</b>	<b>47,000</b>	<b>48,000</b>	<b>190,000</b>	
			UNDP	71400	Contractual services - Indiv	10,000	10,000	10,000	10,000	40,000	8
					<b>sub-total UNDP</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>40,000</b>	
					<b>Total Project Management</b>	<b>57,000</b>	<b>58,000</b>	<b>57,000</b>	<b>58,000</b>	<b>230,000</b>	
<b>PROJECT TOTAL (GEF only)</b>						<b>861,000</b>	<b>1,191,500</b>	<b>1,106,000</b>	<b>831,500</b>	<b>3,990,000</b>	
<b>PROJECT TOTAL (incl. UNDP)</b>						<b>871,000</b>	<b>1201,500</b>	<b>1,116,000</b>	<b>841,500</b>	<b>4,030,000</b>	

### Budget Notes

#### Outcome 1

- 1&2 International consultant (US\$ 700/day) and National consultant (US\$ 120/day) for assisting PBDEs/UPOPs policy and regulatory framework development
3. Subcontracts for workshop materials for PBDEs/UPOPs related policy and regulations development
4. Travel costs for participants for meeting and consultations for PBDEs/UPOPs related policy and regulations development
5. Rent and facility for training, workshop and meeting for PBDEs/UPOPs related policy and regulations development
6. Publications and training material guidelines for new PBDEs/UPOPs regulations and EPR
7. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses

#### Outcome 2

- 1&2 International consultant (US\$ 700/day) and National consultant (US\$ 120/day) for assisting PBDEs capacity building for plastic manufactures
3. Subcontracts for training equipment and resources for PBDEs identification and Quality assurance programme
4. Travel costs for participants for PBDEs capacity building training and workshop
5. Rent and facility for workshop and training on PBDEs capacity building
6. Communication materials and publications on PBDEs/UPOPs for practitioners and general public
7. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses

#### Outcome 3

- 1&2 International consultant (US\$ 700/day) and National consultant (US\$ 120/day) for assisting BAT/BEP implementation in plastic recycling
3. Disposal costs at hazardous landfill \$US 250 per ton, US\$ 100 per ton for transportation for 1,286 tons of PBDE containing plastics and storage of PBDE containing plastics
4. Subcontracts for purchase, expendables and spare parts as well as training use of equipment for identification of PBDE containing plastics
5. Travel costs for participants for BAT/BEP implementation training and workshops
6. Rent and facility for workshops and trainings on BAT/BEP implementation
7. Publications on training module and guidelines on BAT/BEP implementation
8. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses

#### Outcome 4

- 1&2 International consultant (US\$ 700/day) and National consultant (US\$ 120/day) for assisting appropriate separation, collection and disposal of PBDE containing waste
3. Subcontracts for establishing mini-depos, NGO cooperation and PBDE containing waste collection
4. Travel costs for participants for training and workshops on appropriate separation, collection and disposal of PBDE containing waste
5. Rent and facility for workshops and trainings on appropriate collection, separation and disposal of PBDE containing waste
6. Publications on training module and guidelines on appropriate collection, separation and disposal of PBDE containing waste
7. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses

#### Outcome 5

- 1&2 Consultants for mid-term and terminal evaluation

3. Audit fee
4. Travel cost related to monitoring, evaluation and audit workshops, meetings and visits
5. Inception Workshop, regional Board meetings and Project Steering Committee meetings
6. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses

**Project Management**

1. 50% project manager (other 50% in-kind from co-financing partners)
2. 50% project assistant
3. Travel costs for project staff at established travel, DSA and terminal allowance rates for project management and monitoring
4. PMU office phone, fax and internet
5. PMU office utilities and supply
6. Reserves for exchange loss, communication expenses, consumables, unforeseen expenses
7. UNDP cost recovery charges if services requested by PMU/counterparts, Letter of Agreement – Annex E attached
8. 50% project assistant

## ANNEX B: RISK LOG

#	Description	Date Identified	Type	Impact & Probability	Counter measures/ Management response	Owner	Submitted, updated by	Last Update	Status
1	Delay in adoption as overlapping mandates of ministries	1 May 2014	Political	Delayed project progress I = 1 P = 1	Project's multi-stakeholder coordination will ensure coordination and agreement between the ministries.	National Project Director	National Project Manager	11 Feb 2015	No change
2	Poor project ownership or commitment to the project's implementation by any of the project's stakeholders causing a barrier during data collection, but also negatively impacting project implementation and its success.	1 May 2014	Organizational	Delayed project progress I = 1 P = 1	All project stakeholders will be fully involved and engaged throughout the project's proposal planning phase, their buy-in with respect to project objectives, outcomes and activities as well as responsibilities of different stakeholders will be incorporated in the project document/ proposal.	National Project Director	National Project Manager	11 Feb 2015	No change
					Awareness raising will be conducted in such a manner that the focus will be on the economic and social advantages of project implementation as well as the use of BAT/BEP, ensuring the commitment to project implementation of all stakeholders.				
3	Slow implementation of barrier reducing measures such as the further development and adoption of revised strategies, policies and regulations pertaining to the use of PBDEs in industry, safe and environmentally sound practices in plastics recycling and disposal.	1 May 2014	Regulatory	Delayed project progress I = 2 P = 2	<p>The proposed project supports GOI in the strengthening of the national policy and regulatory framework pertaining to these sectors, thus the project itself can influence the timing of the creation of an enabling environment.</p> <p>Waste management is a public and government priority and as such the risk is deemed very low. However, particularly with respect to the informal plastics recycling sector the risks are deemed moderate, as incentives</p>	National Project Director	National Project Manager	11 Feb 2015	No change

#	Description	Date Identified	Type	Impact & Probability	Counter measures/ Management response	Owner	Submitted, updated by	Last Update	Status
					in the informal sector often are financial and to a lesser extent health related. Due to this the project approach puts high emphasis on economic incentives for informal sector to separate PBDE containing waste and the sustainability of these incentives.				
4	Industry and commerce sectors opposition to EPR and consequent delays.	1 May 2014	Political	Delayed project progress I = 3 P = 3	Series of information meetings with experiences from other countries on the success and easiness of establishing EPR for electronics.	National Project Director	National Project Manager	11 Feb 2015	No change
5	Establishment of routine identification scheme takes longer than anticipated to reach goals.	1 May 2014	Organizational	Delayed project progress I = 1 P = 1	Recycling cluster involvement and interest indicate that critical number of plastic processors willing and able to invest in BAT/BEP. Incentives to move fast to be established.	National Project Director	National Project Manager	11 Feb 2015	No change
6	Making mini-depos commercially viable in low income communities.	1 May 2014	Strategic	Delayed project progress I = 3 P = 3	Education that all also commercially valuable waste should go through depo to keep it viable	National Project Director	National Project Manager	11 Feb 2015	No change
7	Waste to Energy project in Bandung and landfill enlargement in Surabaya delayed.	1 May 2014	Operational	Delayed project progress I = 1 P = 1	Keep up urgency through community and NGO involvement.	National Project Director	National Project Manager	11 Feb 2015	No change
8	Climate risks from changing weather patterns and sea level rise, may increase leaching of toxics from recycling operations or waste depots	1 May 2014	Environmental	Delayed project progress I = 1 P = 1	The recycling cluster locations and susceptibility to sea-level rises and increased flooding will be mapped during introduction of BAT/BEP in the clusters. The mini-depos will be established at elevated locations from rivers.	National Project Director	National Project Manager	11 Feb 2015	No change
9	Political situation, especially the general election that takes place may change the post in the Ministry of Industry and other relevant ministries.	1 May 2014	Political	Delayed project progress I = 1 P = 1	It will require extended time for adjustment and adaptation.	National Project Director	National Project Manager	11 Feb 2015	No change



#	Description	Date Identified	Type	Impact & Probability	Counter measures/ Management response	Owner	Submitted, updated by	Last Update	Status
10	Tour of duties. The Implementing Partner and relevant stakeholders is transferred to other post.	1 May 2014	Strategic	Delayed project progress I = 1 P = 1	It will require extended time for adjustment and adaptation.	National Project Director	National Project Manager	11 Feb 2015	No change

## ANNEX C: Supplemental Provisions to the Project Document

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Standard annex to project documents for use in countries which are not parties to the Standard Basic Assistance Agreement (SBAA)

Standard Text: Supplemental Provisions to the Project Document:  
The Legal Context

General responsibilities of the Government, UNDP and the executing agency

1. All phases and aspects of UNDP assistance to this project shall be governed by and carried out in accordance with the relevant and applicable resolutions and decisions of the competent United Nations organs and in accordance with UNDP's policies and procedures for such projects, and subject to the requirements of the UNDP Monitoring, Evaluation and Reporting System.
2. The Government shall remain responsible for this UNDP-assisted development project and the realization of its objectives as described in this Project Document.
3. Assistance under this Project Document being provided for the benefit of the Government and the people of (the particular country or territory), the Government shall bear all risks of operations in respect of this project.
4. The Government shall provide to the project the national counterpart personnel, training facilities, land, buildings, equipment and other required services and facilities. It shall designate the Government Co-operating Agency named in the cover page of this document (hereinafter referred to as the "Co-operating Agency"), which shall be directly responsible for the implementation of the Government contribution to the project.
5. The UNDP undertakes to complement and supplement the Government participation and will provide through the Executing Agency the required expert services, training, equipment and other services within the funds available to the project.
6. Upon commencement of the project the Executing Agency shall assume primary responsibility for project execution and shall have the status of an independent contractor for this purpose. However, that primary responsibility shall be exercised in consultation with UNDP and in agreement with the Co-operating Agency. Arrangements to this effect shall be stipulated in the Project Document as well as for the transfer of this responsibility to the Government or to an entity designated by the Government during the execution of the project.

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7. Part of the Government's participation may take the form of a cash contribution to UNDP. In such cases, the Executing Agency will provide the related services and facilities and will account annually to the UNDP and to the Government for the expenditure incurred.

(a) Participation of the Government

1. The Government shall provide to the project the services, equipment and facilities in the quantities and at the time specified in the Project Document. Budgetary provision, either in kind or in cash, for the Government's participation so specified shall be set forth in the Project Budgets.
2. The Co-operating Agency shall, as appropriate and in consultation with the Executing Agency, assign a director for the project on a full-time basis. He shall carry out such responsibilities in the project as are assigned to him by the Co-operating Agency.
3. The estimated cost of items included in the Government contribution, as detailed in the Project Budget, shall be based on the best information available at the time of drafting the project proposal. It is understood that price fluctuations during the period of execution of the project may necessitate an adjustment of said contribution in monetary terms; the latter shall at all times be determined by the value of the services, equipment and facilities required for the proper execution of the project.
4. Within the given number of man-months of personnel services described in the Project Document, minor adjustments of individual assignments of project personnel provided by the Government may be made by the Government in consultation with the Executing Agency, if this is found to be in the best interest of the project. UNDP shall be so informed in all instances where such minor adjustments involve financial implications.
5. The Government shall continue to pay the local salaries and appropriate allowances of national counterpart personnel during the period of their absence from the project while on UNDP fellowships.
6. The Government shall defray any customs duties and other charges related to the clearance of project equipment, its transportation, handling, storage and related expenses within the country. It shall be responsible for its installation and maintenance, insurance, and replacement, if necessary, after delivery to the project site.
7. The Government shall make available to the project - subject to existing security provisions - any published and unpublished reports, maps, records and other data which are considered necessary to the implementation of the project.

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8. Patent rights, copyright rights and other similar rights to any discoveries or work resulting from UNDP assistance in respect of this project shall belong to the UNDP. Unless otherwise agreed by the Parties in each case, however, the Government shall have the right to use any such discoveries or work within the country free of royalty and any charge of similar nature.

9. The Government shall assist all project personnel in finding suitable housing accommodation at reasonable rents.

10. The services and facilities specified in the Project Document which are to be provided to the project by the Government by means of a contribution in cash shall be set forth in the Project Budget. Payment of this amount shall be made to the UNDP in accordance with the Schedule of Payments by the Government.

11. Payment of the above-mentioned contribution to the UNDP on or before the dates specified in the Schedule of Payments by the Government is a prerequisite to commencement or continuation of project operations.

(b) Participation of the UNDP and the executing agency

1. The UNDP shall provide to the project through the Executing Agency the services, equipment and facilities described in the Project Document. Budgetary provision for the UNDP contribution as specified shall be set forth in the Project Budget.

2. The Executing Agency shall consult with the Government and UNDP on the candidature of the Project Manager a/ who, under the direction of the Executing Agency, will be responsible in the country for the Executing Agency's participation in the project. The Project Manager shall supervise the experts and other agency personnel assigned to the project, and the on-the-job training of national counterpart personnel. He shall be responsible for the management and efficient utilization of all UNDP-financed inputs, including equipment provided to the project.

3. The Executing Agency, in consultation with the Government and UNDP, shall assign international staff and other personnel to the project as specified in the Project Document, select candidates for fellowships and determine standards for the training of national counterpart personnel.

4. Fellowships shall be administered in accordance with the fellowships regulations of the Executing Agency.

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5. The Executing Agency may, in agreement with the Government and UNDP, execute part or all of the project by subcontract. The selection of subcontractors shall be made, after consultation with the Government and UNDP, in accordance with the Executing Agency's procedures.

6. All material, equipment and supplies which are purchased from UNDP resources will be used exclusively for the execution of the project, and will remain the property of the UNDP in whose name it will be held by the Executing Agency. Equipment supplied by the UNDP shall be marked with the insignia of the UNDP and of the Executing Agency.

7. Arrangements may be made, if necessary, for a temporary transfer of custody of equipment to local authorities during the life of the project, without prejudice to the final transfer.

8. Prior to completion of UNDP assistance to the project, the Government, the UNDP and the Executing Agency shall consult as to the disposition of all project equipment provided by the UNDP. Title to such equipment shall normally be transferred to the Government, or to an entity nominated by the Government, when it is required for continued operation of the project or for activities following directly therefrom. The UNDP may, however, at its discretion, retain title to part or all of such equipment.

9. At an agreed time after the completion of UNDP assistance to the project, the Government and the UNDP, and if necessary the Executing Agency, shall review the activities continuing from or consequent upon the project with a view to evaluating its results.

10. UNDP may release information relating to any investment oriented project to potential investors, unless and until the Government has requested the UNDP in writing to restrict the release of information relating to such project.

#### Rights, Facilities, Privileges and Immunities

1. In accordance with the Agreement concluded by the United Nations (UNDP) and the Government concerning the provision of assistance by UNDP, the personnel of UNDP and other United Nations organizations associated with the project shall be accorded rights, facilities, privileges and immunities specified in said Agreement.

2. The Government shall grant UN volunteers, if such services are requested by the Government, the same rights, facilities, privileges and immunities as are granted to the personnel of UNDP.



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3. The Executing Agency's contractors and their personnel (except nationals of the host country employed locally) shall:

(a) Be immune from legal process in respect of all acts performed by them in their official capacity in the execution of the project;

(b) Be immune from national service obligations;

(c) Be immune together with their spouses and relatives dependent on them from immigration restrictions;

(d) Be accorded the privileges of bringing into the country reasonable amounts of foreign currency for the purposes of the project or for personal use of such personnel, and of withdrawing any such amounts brought into the country, or in accordance with the relevant foreign exchange regulations, such amounts as may be earned therein by such personnel in the execution of the project;

(e) Be accorded together with their spouses and relatives dependent on them the same repatriation facilities in the event of international crisis as diplomatic envoys.

4. All personnel of the Executing Agency's contractors shall enjoy inviolability for all papers and documents relating to the project.

5. The Government shall either exempt from or bear the cost of any taxes, duties, fees or levies which it may impose on any firm or organization which may be retained by the Executing Agency and on the personnel of any such firm or organization, except for nationals of the host country employed locally, in respect of:

(a) The salaries or wages earned by such personnel in the execution of the project;

(b) Any equipment, materials and supplies brought into the country for the purposes of the project or which, after having been brought into the country, may be subsequently withdrawn therefrom;

(c) Any substantial quantities of equipment, materials and supplies obtained locally for the execution of the project, such as, for example, petrol and spare parts for the operation and maintenance of equipment mentioned under (b), above, with the provision that the types and approximate quantities to be exempted and relevant procedures to be followed shall be agreed upon with the Government and, as appropriate, recorded in the Project Document; and

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(d) As in the case of concessions currently granted to UNDP and Executing Agency's personnel, any property brought, including one privately owned automobile per employee, by the firm or organization or its personnel for their personal use or consumption or which after having been brought into the country, may subsequently be withdrawn therefrom upon departure of such personnel.

6. The Government shall ensure:

(a) prompt clearance of experts and other persons performing services in respect of this project; and

(b) the prompt release from customs of:

(i) equipment, materials and supplies required in connection with this project; and

(ii) property belonging to and intended for the personal use or consumption of the personnel of the UNDP, its Executing Agencies, or other persons performing services on their behalf in respect of this project, except for locally recruited personnel.

7. The privileges and immunities referred to in the paragraphs above, to which such firm or organization and its personnel may be entitled, may be waived by the Executing Agency where, in its opinion or in the opinion of the UNDP, the immunity would impede the course of justice and can be waived without prejudice to the successful completion of the project or to the interest of the UNDP or the Executing Agency.

8. The Executing Agency shall provide the Government through the resident representative with the list of personnel to whom the privileges and immunities enumerated above shall apply.

9. Nothing in this Project Document or Annex shall be construed to limit the rights, facilities, privileges or immunities conferred in any other instrument upon any person, natural or juridical, referred to hereunder.

#### Suspension or termination of assistance

1. The UNDP may by written notice to the Government and to the Executing Agency concerned suspend its assistance to any project if in the judgement of the UNDP any circumstance arises which interferes with or threatens to interfere with the successful completion of the project or the accomplishment of its purposes. The UNDP may, in the same or a subsequent written notice, indicate the conditions under which it is prepared to resume its assistance to the project. Any such suspension shall continue until such time as such conditions are accepted by the Government and as the UNDP shall give written notice to the Government and the Executing Agency that it is prepared to resume its assistance.

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2. If any situation referred to in paragraph 1, above, shall continue for a period of fourteen days after notice thereof and of suspension shall have been given by the UNDP to the Government and the Executing Agency, then at any time thereafter during the continuance thereof, the UNDP may by written notice to the Government and the Executing Agency terminate the project.

3. The provisions of this paragraph shall be without prejudice to any other rights or remedies the UNDP may have in the circumstances, whether under general principles of law or otherwise.





## **ANNEX D. Country Office Support Service (COSS) Agreement**

### **AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES**

1. Reference is made to consultations between officials of the Government of Indonesia/ Ministry of Industry (hereinafter referred to as “the Government”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme:

- (a) Identification and/or recruitment of project and programme personnel and technical expertise;
- (b) Procurement of goods and services to undertake agreed activities;
- (c) Administration of the donor contribution;
- (d) Management of grant agreements and related disbursements for project-related activities.

4. The procurement of goods and services and the recruitment of programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures.

5. The relevant provisions of the Revised Basic Agreement for Technical Assistance signed 29 October 1954 between the United Nations, the International Labour Organisation, the Food and Agriculture Organisation of the United Nations, the United Nations Educational, Scientific and Cultural Organisation, the International Civil Aviation Organisation, and the World Health Organisation and the Government of the Republic of Indonesia, the Standard Agreement on Operational Assistance signed 12 June 1969 between the United Nations, the International Labour Organisation, the Food and Agriculture Organisation of the United Nations, the United Nations Educational, Scientific and Cultural Organisation, the International Civil Aviation Organisation, the World Health Organisation, the International Telecommunication Union, the World Meteorological Organisation, the International Atomic Energy Agency, the Universal Postal Union, the Inter-Governmental Maritime Consultative Organisation and the United Nations Industrial Development Organisation and the Government of the Republic of Indonesia and the Agreement signed 7 October 1960 between the United Nations Special Fund and the Government of the Republic of Indonesia including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the Annex to the programme support document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the above mentioned agreements.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall refer to the agreed implementation support service rate as stipulated in the letter from BAPPENAS dated 22 June 2010, No. 3965/W/06/2010.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

## ANNEX E: Terms of Reference of Key Project Personnel

### I. POSITION INFORMATION

Job Title:	National Project Manager (NPM)
Pre-classified Grade:	ICS-8
Supervisor:	National Project Director (NPD)/ Deputy NPD/ Programme Officer
Project Title:	Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia

### II. ORGANIZATIONAL CONTEXT

In order to tackle environmental challenges, Indonesia has recently ratified the Stockholm Convention on POPs. This project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of PBDEs toxic flame retardant and Unintentional POPs by-products, as well as to build country's capacity to manage these.

The project will support Indonesia's industry and recyclers in ensuring that no banned POPs are being used or recycled into new manufactured articles. In addition municipal and community waste operations will be supported in order to reduce environmentally harmful releases. While working on reducing harmful releases, the socio-economic and climate impact of the project is overall beneficial the project will work with two activity areas that are inherently climate beneficial, i.e. increased recycling and material efficiency and better waste management. It focuses on these following components, i.e. (1) strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastic manufacturing, recycling and disposal practices, (2) reducing or eliminating the importation and use of PBDE in plastics manufacturing, (3) reducing UPOPs and PBDEs from unsound plastics recycling, (4) reducing releases of UPOPs and PBDEs from unsound plastic disposal practices, and (5) Monitoring, Learning, Adaptive Feedback, Outreach and Evaluation.

Under the guidance and direct supervision of the National Project Director (NPD) or Programme Officer, NPM analyses political, social and economic trends and participates in the formulation, management and evaluation of project activities. In coordination with NPD/DNPD, the NPM is expected to supervise and lead Project Management Unit (PMU). The NPM works in close collaboration with NPD/DNPD and UNDP CO.

### III. FUNCTIONS / KEY RESULTS EXPECTED

#### Summary of key functions:

- Implementation of programme strategies
- Management of the CO programme
- Creation of strategic partnerships and implementation of the resource mobilization strategy
- Provision of top quality advisory services to the Government and facilitation of knowledge building and management

Ensures implementation of programme strategies focusing on achievement of the following results:

- Thorough analysis and research of the political, social and economic situation in the country and preparation of substantive inputs to CCA, UNDAF, CPD, CPAP and other documents.
- Analysis and synthesis of proposals on the areas for support and interventions within the practice area specialization assigned.

Participates in effective management of the CO programme within the practice area specialization assigned focusing on quality control from formulation to implementation of the country programme achieving the following results:

- Design and formulation of some parts of CO programme within the area of responsibility, translating UNDP's priorities into local interventions.

- Initiation of a project, presentation of the project to PAC, finalization of contribution agreement; determination of required revisions; coordination of the mandatory and budget re-phasing exercises, closure of projects through review.
- Application of conceptual models in support of programme design
- Financial and substantive monitoring and evaluation of the projects, identification of operational and financial problems, development of solutions. Participation in audit of NEX projects.
- Preparation of inputs for reporting, including donor reporting.

Supports creation of strategic partnerships and implementation of the resource mobilization strategy focusing on achievement of the following results:

- Analysis and research of information on donors, preparation of substantive briefs on possible areas of cooperation, identification of opportunities for initiation of new projects, active contribution to the overall office effort in resource mobilization.

Provides top quality advisory services to the Government and ensures facilitation of knowledge building and management focusing on achievement of the following results:

- Identification of sources of information related to policy-driven issues. Identification and synthesis of best practices and lessons learned directly linked to programme country policy goals.
- Sound contributions to knowledge networks and communities of practice.
- Organization of training for the operations/ projects staff on programme issues.
- Professional growth through active learning.

#### **IV. IMPACT OF RESULTS**

*The key results have an impact on the success of country programme within specific areas of cooperation. In particular, the key results have an impact on the design, operation and programming of activities, creation of strategic partnerships as well as reaching resource mobilization targets.*

#### **V. COMPETENCIES AND CRITICAL SUCCESS FACTORS**

##### **Functional Competencies:**

##### Advocacy/Advancing A Policy-Oriented Agenda

Level 1.2: Preparing information for advocacy

- Identifies and communicates relevant information for a variety of audiences for advocating UNDP's mandate

##### Results-Based Programme Development and Management

Level 1.2: Contributes into results through primary research and analysis

- Assesses project performance to identify success factors and incorporates best practices into project work
- Researches linkages across programme activities to identify critical points of integration
- Monitors specific stages of projects/programme implementation

##### Building Strategic Partnerships

Level 1.2: Maintaining a network of contacts

- Maintains an established network of contacts for general information sharing and to remain up-to-date on partnership related issues
- Analyses and selects materials for strengthening strategic alliances with partners and stakeholders

##### Innovation and Marketing New Approaches

Level 1.2: Enhancing processes or products

- Generates new ideas and proposes new, more effective ways of doing things

##### Resource Mobilization (Field Duty Stations)

Level 1.2: Providing inputs to resource mobilization strategies

- Analyses information/databases on potential and actual donors

Promoting Organizational Learning and Knowledge Sharing

Level 1.2: Basic research and analysis

- Generates new ideas and approaches, researches best practices and proposes new, more effective ways of doing things

Job Knowledge/Technical Expertise

Level 1.2: Fundamental knowledge of own discipline

- Understands and applies fundamental concepts and principles of a professional discipline or technical specialty relating to the position
- Possesses basic knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks
- Strives to keep job knowledge up-to-date through self-directed study and other means of learning
- Demonstrates good knowledge of information technology and applies it in work assignments

Global Leadership and Advocacy for UNDP’s Goals

Level 1.2: Preparing information for global advocacy

- Identifies and communicates relevant information for advocacy for UNDP’s goals for a variety of audiences

Client Orientation

Level 1.2: Establishing effective client relationships

- Researches potential solutions to internal and external client needs and reports back in a timely, succinct and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines

**Core Competencies:**

- Demonstrating/safeguarding ethics and integrity
- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.
- Informed and transparent decision making

<b>VI. RECRUITMENT QUALIFICATIONS</b>	
Education:	Master’s Degree or equivalent in political or social sciences or related field.
Experience:	Up to 2 years of relevant experience at the national or international level in providing management advisory services and hands-on experience in design, monitoring and evaluation of development projects. Experience in the use of computers and office software packages and handling of web based management systems. Preference is given to those who have higher education (as granted by a university or institute) in a field related to engineering, environment protection, and/or environmental sanitation, and technical knowledge and work experience of not less than 5 years in plastic manufacturing, recycling waste or waste management
Language Requirements:	Fluency in the UN and national language of the duty station.

<b>VII. SIGNATURES - POST DESCRIPTION CERTIFICATION</b>
Incumbent <i>(if applicable)</i>

Name	Signature	Date
Supervisor		
Name / Title	Signature	Date
Chief Division/Section		
Name / Title	Signature	Date

**I. POSITION INFORMATION**

Job Title:	Project Assistant (PA)
Pre-classified Grade:	ICS-5
Supervisor:	National Project Manager (NPM) and Programme Officer
Project Title:	Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia

**II. ORGANIZATIONAL CONTEXT**

In order to tackle environmental challenges, Indonesia has recently ratified the Stockholm Convention on POPs. This project aims to assist the country in implementing its relevant obligations under the Stockholm Convention, in particular to reduce the releases of PBDEs toxic flame retardant and Unintentional POPs by-products, as well as to build country's capacity to manage these.

The project will support Indonesia's industry and recyclers in ensuring that no banned POPs are being used or recycled into new manufactured articles. In addition municipal and community waste operations will be supported in order to reduce environmentally harmful releases. While working on reducing harmful releases, the socio-economic and climate impact of the project is overall beneficial the project will work with two activity areas that are inherently climate beneficial, i.e. increased recycling and material efficiency and better waste management. It focuses on these following components, i.e. (1) strengthening the national policy and regulatory framework to reduce UPOPs and PBDE releases from plastic manufacturing, recycling and disposal practices, (2) reducing or eliminating the importation and use of PBDE in plastics manufacturing, (3) reducing UPOPs and PBDEs from unsound plastics recycling, (4) reducing releases of UPOPs and PBDEs from unsound plastic disposal practices, and (5) Monitoring, Learning, Adaptive Feedback, Outreach and Evaluation.

Under the guidance and direct supervision of the National Project Director or Programme Officer, the Project Assistant is expected to work in close coordination with the NPM, NPD/DNPD, and Programme Officer (along with Operations Unit) to ensure good operations of the project PMU.

**III. FUNCTIONS / KEY RESULTS EXPECTED****Summary of Key Functions:**

- Support to formulation of programme strategies and the Country Programme Action Plan
- Support to management of the CO programme
- Administrative support to the Programme Unit
- Support to resource mobilization
- Support to knowledge building and knowledge sharing

Supports formulation of programme strategies and the Country Programme Action Plan focusing on achievement of the following results:

- Collection, analysis and presentation of information for identification of areas for support and programme formulation/ implementation.

Provides effective support to management of the CO programme focusing on the achievement of the following results:

- Creation of projects in Atlas, preparation of budget revisions, revision of project award and project status, determination of unutilized funds, operational and financial closure of a project.
- Presentation of information for audit of NEX projects.

Provides administrative support to the Programme Unit focusing on achievement of the following results:

- Preparation of non-PO vouchers for development projects.
- Maintenance of the internal expenditures control system including timely corrective actions on unposted vouchers, including the vouchers with budget check errors, match exceptions, unapproved vouchers.

- Creation of requisitions in Atlas for development projects, register of goods receipt in Atlas.
- Making budget check for requisitions, POs and vouchers.

Preparation of vouchers, requisitions for development projects can be performed either by Programme Associates or by Project Assistants depending on the set up of the office.

Voucher creation functions in the offices with Service Centres or Project offices, can be performed either by Service Administrators of Service Centres or Finance Assistants of Project offices.



Supports *resource mobilization* focusing on achievement of the following results:

- Review of contributions agreement, managing contributions in Atlas.

Supports knowledge building and knowledge sharing in the CO focusing on achievement of the following results:

- Participation in the trainings for the operations/ projects staff on programme.
- Contributions to knowledge networks and communities of practice.

#### **IV. IMPACT OF RESULTS**

Accurate data entry and financial information have an impact on the quality and implementation of the UNDP programme. A client-oriented and efficient approach impact on the image of UNDP in the country.

#### **V. COMPETENCIES AND CRITICAL SUCCESS FACTORS**

##### **Functional Competencies:**

Level 1.1: Support the preparation of information for advocacy

- Identifies relevant information for advocacy for a variety of audiences

##### **Results-Based Programme Development and Management**

Level 1.1: Contributing to results through provision of information

- Provides information and documentation on specific stages of projects/programme implementation

##### **Building Strategic Partnerships**

Level 1.1: Maintaining information and databases

- Analyses general information and selects materials in support of partnership building initiatives

##### **Innovation and Marketing New Approaches**

Level 1.1: Implementing processes and uses products

- Documents and tracks innovative strategies/best practices/new approaches

##### **Resource Mobilization (Field Duty Stations)**

Level 1.1: Providing information for resource mobilization strategies

- Maintains information/databases on potential and actual donors
- Maintains database of project files
- Provides data and information needed for preparation of project documents

##### **Promoting Organizational Learning and Knowledge Sharing**

Level 1.1: Basic research and analysis

- Researches best practices and poses new, more effective ways of doing things

##### **Job Knowledge/Technical Expertise**

Level 1.1: Fundamental knowledge of processes, methods and procedures



- Understands the main processes and methods of work regarding to the position
- Possesses basic knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks
- Demonstrates good knowledge of information technology and applies it in work assignments

Global Leadership and Advocacy for UNDP’s Goals

Level 1.1: Research and analysis

- Identifies relevant information for advocacy for UNDP’s goals for a variety of audiences

Client Orientation

Level 1.1: Maintains effective client relationships

- Reports to internal and external clients in a timely and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines
- Establishes, builds and sustains effective relationships within the work unit and with internal and external clients
- Responds to client needs promptly

Core Competencies:

- Demonstrating/safeguarding ethics and integrity
- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.
- Informed and transparent decision making

<b>VI. RECRUITMENT QUALIFICATIONS</b>	
Education:	Secondary Education preferably with specialized certification in Accounting and Finance. University Degree in Business or Public Administration, Economics, Political Sciences and Social Sciences would be desirable, but it is not a requirement.
Experience:	5 years of relevant administrative or programme experience is required at the national or international level. Experience in the usage of computers and office software packages (MS Word, Excel, etc.) and knowledge of spreadsheet and database packages, experience in handling of web based management systems.
Language Requirements:	Fluency in the UN and national language of the duty station.

<b>VII. SIGNATURES- JOB DESCRIPTION CERTIFICATION</b>		
Incumbent <i>(if applicable)</i>		
Name	Signature	Date
Supervisor		
Name	Signature	Date
Chief Division/Section		
Name	Signature	Date

## **ANNEX F: Environmental Social Screening**

*(attached separately at submission time in Word)*

**ANNEX G: GEF POPs tracking tool**

*(attached separately at submission time in Excel)*

## ANNEX H: M&E Matrix

Expected Results	Indicators (with baselines and indicative targets)	M&E Event with data collection methods	Time Schedule and Frequency	Responsibilities	Means of Verification: Data Source and Type	Resources	Risks
Inception report	Available report	Inception workshop and associated arrangements	Within the first 3 months of the project start up	NPM UNDP CO	Inception report	Workshop and Minutes of Meeting	Low
QMR/IPAR	Available QMR/IPAR	Quarterly monitoring	Periodically, every quarter	NPM UNDP CO	Quantitative and qualitative reports	Periodic monitoring Financial reports	Low
Annual project report/Project Implementation Report (APR/PIR)	Available APR/PIR	Annually	Periodically, annually	NPM	Quantitative and qualitative reports	Periodic monitoring Financial reports	Low
Meetings of Steering Committee and relevant meeting proceedings (minutes)	Available minutes of meeting	Annually	Periodically, annually	NPM	Minutes of Meeting	PSC	Low
Technical monitoring, evaluation, and reporting within the project components	Available reports	Continuous monitoring	Continuous monitoring	NPM and consultants	Quantitative and qualitative analysis	Analysis of experts	Medium
Mid-term Evaluation (external)	Project performance evaluation	External evaluation	Agreed time frame	NPM and PMEU	Quantitative and qualitative analysis	Analysis of experts	Medium
Final Evaluation	Project performance evaluation	External evaluation	Agreed time frame	NPM and PMEU	Quantitative and qualitative reports	Analysis of experts	Medium
Final Report	Project performance evaluation	External evaluation	Agreed time frame	NPM and PMEU	Quantitative and qualitative analysis	Analysis of experts	Medium
Compilation of lessons learned	Knowledge sharing	Project team	Agreed time frame	NPM Experts	Quantitative and qualitative analysis	Analysis of experts	Medium
Financial audit	Audit performance	Audit	Periodically, Annually	NPM Project Team	Audit report	Analysis of financial audit	Medium
Field visits	BTOR	Periodically	Periodically	NPM Project Team	BTOR	Findings and follow up	Medium

**ANNEX I: Sustainability Plan/ Project Exit Strategy**  
(attached separately)