



REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title: CBPF-MSL: Reduction of POPs and PTS release by environmentally sound management throughout the life cycle of electrical and electronic equipment and associated wastes in China			
Country(ies):	People's Republic of China	GEF Project ID: ¹	4862
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5044
Other Executing Partner(s):	Ministry of Environmental Protection, Foreign Economic Cooperation Office	Submission Date:	10 December 2013
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration(Months)	48
Name of Parent Program (if applicable):		Agency Fee (\$):	1,165,000
➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/>			

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CHEM-1	Outcome 1.3: POPs releases to the environment reduced.	Indicator 1.3.1 Amount of unintentionally produced POPs releases avoided or reduced from industrial and nonindustrial sectors; measured in grams TEQ against baseline as recorded through the POPs tracking tool.	GEF TF	8,435,000	34,100,000
CHEM-1	Outcome 1.4: POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner.	Indicator 1.4 Amount of POPs related waste prevented, managed and disposed.	GEF TF	900,000	3,500,000
CHEM-1	Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs.	Indicator 1.5.1 Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded in the POPs tracking tool	GEF TF	675,000	3,050,000
CHEM-3	Outcome 3.2: Contribute to the overall objective of the SAICM of achieving the sound management of chemicals throughout their life-cycle in ways that lead to the minimization of significant adverse effects on human health and the environment.	Indicator 3.2.1 Countries implement SAICM relevant activities that generate global environmental benefits and report to the International Conference on Chemicals Management.	GEF TF	1,090,000	4,150,000
Sub-Total				11,100,000	44,800,000

¹ Project ID number will be assigned by GEFSEC.

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

Project Management Costs		GEF TF	550,000	2,200,000
Total project costs			11,650,000	47,000,000

B. PROJECT FRAMEWORK

Project Objective: Reduction and elimination of POPs and PTS releases associated with E-Waste processing through implementation of a life cycle WEEE management system based on extended producer responsibility, and application of BAT/BEP processing technology						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
1. Development and implementation of the national EPR system for WEEE	TA	<p>Outcome 1.1: Operational national EPR system covering priority POPs/PTS release sensitive E-Waste streams.</p> <p>Outcome 1.2: Adopted and implemented national technical standards and operational business documentation governing the management of WEEE in support of the EPR system.</p> <p>Outcome 1.3: Applied LCA/LCM procedures and labeling for product design and</p>	<p>1.1.1 National EPR Treatment Fund supporting environmentally sound WEEE collection, dismantling and processing operations is established and disbursing with coverage of POPs sensitive e-waste.</p> <p>1.1.2 International experience on EPR system management and control of WEEE material and financial flows in the WEEE management chain delivered through training and twinning arrangements particularly with respect to POPs sensitive e-waste stream components.</p> <p>1.1.3 Integrated information/data management system providing current information covering national, regional and local levels of the WEEE management chain operating in support of the EPR system.</p> <p>1.2.1 Technical standards defining targeted high POPs/PTS release sensitive WEEE (e-waste) streams, and applicable WEEE management chain technology performance, adopted and implemented.</p> <p>1.3.1 Guidance documentation for LCA/LCM and associated eco-labeling applied to product design and</p>	GEF TF	1,900,000	6,000,000

		<p>production.</p> <p>Outcome 1.4: Achieved public awareness and stakeholder consensus on the detailed design and implementation of the national EPR system.</p> <p>Outcome 1.5: Implementation of effective discrimination between second hand product and e-waste imports.</p>	<p>production for waste minimization and recovery & recycling processing optimization in use.</p> <p>1.4.1 National stakeholder consultation program involving product producers, government implementing agencies, distributors, consumer representatives and NGOs at all levels on EPR system implementation through workshops, and input solicitation on disseminated documentation implemented.</p> <p>1.4.2 Public awareness initiatives respecting the EPR system in the form of information product dissemination delivered.</p> <p>1.5.1 Strengthened policy, regulations and enforcement covering the expanded controls on second hand product and e-waste imports</p> <p>1.5.2 Training and detection enhancement for improved discrimination between e-waste and second hand product imports consistent with Basel Convention requirements and guidance in place.</p> <p>1.5.3 Strengthened bi-lateral cooperation and coordination with major exporting countries implemented.</p>			
2. Demonstration and development of market based WEEE processing infrastructure	TA	<p>Outcome 2.1: Utilization and upgrading of the existing domestic WEEE collection system to efficiently and cost effectively supply registered/permited WEEE processing facilities particularly for POPs/PTS sensitive e-waste constituents.</p>	<p>2.1.1 Comprehensive characterization of current WEEE and specifically e-waste collection chain inclusive of developing and documenting the identified measures necessary to optimize the collection chain.</p> <p>2.1.2 Knowledge and experience exchange conducted on pilot interventions in the collection chain to optimize efficiency, particularly related to primary product separation for direction to recycling</p>	GEF TF	6,800,000	30,000,000

		<p>Outcome 2.2: Operation of a comprehensive national network of registered WEEE processing facilities to dismantle and process POPs/PTS release sensitive materials in an environmentally sound manner utilizing demonstrated BAT/BEP technologies.</p>	<p>facilities undertaken.</p> <p>2.2.1 Registration of WEEE processing operations including those handling POPs/PTS sensitive e-waste implemented and required upgrading/expansion opportunities identified.</p> <p>2.2.2 Technology selection and operational technical guidelines appropriate to various scale levels of WEEE processing developed.</p> <p>2.2.3 BAT/BEP technology demonstration initiatives investments targeting on POPs/PTS release sensitive e-waste materials undertaken. - on dismantling process at 3 enterprises; - on plastic, cable and epoxy resin processing at one enterprise; - On Waste Printed Circuit Board at 2 enterprises; - on CRT.</p> <p>2.2.4 Support for existing and new formal dismantling and processing operations based on incremental requirements matched to market growth such that a network of major regional facilities is operational.</p> <p>2.2.5 At least one center supported for processing of high value materials (i.e. printed circuit boards) to recover precious metals at qualified non-ferrous metals smelter(s).</p> <p>2.2.6 Policy, technology, management support provided to promote demonstration activities</p>			
3. Upgrading of informal WEEE processing and its integration into the EPR System	TA	<p>Outcome 3.1: Characterization of overall national scale, scope and impacts associated with the informal WEEE processing inclusive of identification of</p>	<p>3.1.1 National informal WEEE sector characterization study of the informal WEEE processing sector, particularly that handling POPs/PTS sensitive e-waste, undertaken.</p>	GEF TF	1,900,000	7,800,000

		high priority regions and centers.	3.1.2 Guidance and procedural documentation for undertaking environmental and health impact evaluations of potentially impacted areas and locations at the local level prepared and disseminated.			
		Outcome 3.2: Provision of policy, regulatory enforcement and awareness support provided through MEP to the local level related to supervision of the informal WEEE sector.	3.2.1 Model regulations and guidance materials on the supervision of WEEE processing at the local level developed and disseminated. 3.2.2 Awareness and assessment programs on the control and impacts of informal WEEE processing for local officials, operators and the public developed and delivered.			
		Outcome 3.3: Demonstration of collective infrastructure supporting informal WEEE processors and providing environmentally sound dismantling operations related to POPs/PTS sensitive release developed and integrated with the national EPR system recycling network for further processing.	3.3.1 Collectives formed from informal dismantling/processing operations established, inclusive of common support infrastructure and links to environmentally sound processors/residual disposal facilities. Municipale level collection chains/systems designed and implemened with 3 enterprises.			
4. Project Monitoring and Evaluation	TA	Outcome 4.1: Monitoring and evaluation; knowledge sharing and information dissemination.	4.1.1 Monitoring, evaluation and impact assessment. 4.1.2 Knowledge sharing and post project action plan.	GEF TF	500,000	1,000,000
Subtotal					11,100,000	44,800,000
Project Management Cost (PMC) ³				GEF TF	550,000	2,200,000
Total project costs					11,650,000	47,000,000

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

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
Government	MEP, EPB of Hubei Province, Jiangsu Province and Tianjin Municipality	Grant	3,800,000
Private Sector	Recycling and Dismantling Enterprises	Grant	16,805,000
Others	Institutions	Grant	535,000
Government	MEP, EPB of Hubei Province, Jiangsu Province and Tianjin Municipality	In-kind	8,616,000
Private Sector	Recycling and Dismantling Enterprises	In-kind	16,045,000
GEF Agency	UNDP	In-kind	100,000
Bilateral Aid Agency (ies)	USEPA	In-kind	59,000
Others	Institutions	In-kind	1,040,000
Total Co-financing			47,000,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
Total Grant Resources						

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	80,000	80,000	160,000
National/Local Consultants	135,000	15,000	150,000

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

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

PART II: PROJECT JUSTIFICATION**A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF⁴**

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

No change

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities: No change

A.3. The GEF Agency's comparative advantage: No change

A.4. The baseline project and the problem that it seeks to address:

⁴ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question

The baseline project has not changed since the PIF approval. While there is no major changes reflected in the project document or in the different project components, nonetheless, the activities in the project document contains minor adjustments and the corresponding changes in the project budget within each project component, with more efficient budget allocation both in the GEF and the co-financing budgets, to reflect the strengths and needs of the project activities that will better achieve project outcomes and project objectives, as identified during the PPG phase is to identify the possibility of e-waste business on carbon emission reduction trading,

As energy consumption in removing precious metals from e-waste is much less than extracting the same metals from mining, the project will also explore the potential of carbon emission reduction by developing methodologies for e-waste management in the formal sector. The project will coordinate relevant stakeholders in public and private sector to create an enabling policy and market environment for the formal sector to sell the carbon emission reduction to electronic and electronic product producers for carbon emission reduction. Partnership between the government and carbon trading market in China and other countries will be strengthened so that the methodology and the carbon credit can be accepted globally. The main outputs will include:

- A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

There is no fundamental change. The PPG phase allowed the definition of the global environmental benefits to be delivered with more precision.

- A.6. Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks.

No change. It is emphasized that the most significant risk is the sustained informal operation due to continued availability of illegal WEEE imports and the continuous delivery of e-waste by the domestic informal collectors with continued environmental impacts and potentials to undermine the economic basis for the formal domestic WEEE management system. The MEP indicated that the illegal import of e-waste is being restrained as a result of policies and close cooperation between the MEP and customs and quality inspection departments to enhance the effectiveness of both the monitoring of and crackdowns on illegal e-waste import. In addition to strengthened policy and enforcement efforts, the project undertakes proactive approach to integrate the informal sector into a properly managed and funded WEEE management system. One specific aspect that a formal EPR based system will offer in the project is to ensure that sufficient financial incentive exists for the collection and pretreatment (dismantling) of all WEEE regardless of value which without the financial incentives at this level does not happen in an informal system. The demonstration activities of municipality level collection chains/systems will certainly facilitate the diversion of e-waste being delivered towards the formal and qualified processing enterprises, and bring the current informal sector into the formal recycling system, the informal sector can moved up the value chain bringing their income levels up from current low levels.

- A.7. Coordination with other relevant GEF financed initiatives: N/A

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1. Describe how the stakeholders will be engaged in project implementation.

In China, in addition to governmental agencies, there are various key stakeholders who are involved in waste electrical and electronic equipment (WEEE) issues. The key stakeholders include civil society organizations, institutions, agencies, researchers, private sector, industrial groups, local and indigenous communities. The respective roles of key stakeholders and their areas of expertise are described below.

At the national level, six governmental agencies play the key roles in legislation, management, monitoring and communication of e-waste issues, namely, the National Development and Reform Committee (NDRC), Ministry of Environmental Protection (MEP), Ministry of Industry and Information Technology (MIIT), Ministry of Commerce (MOC), Ministry of Finance (MOF) and General Administration of Customs (GAC).

The main stakeholders and their respective roles and responsibilities for the EPR Treatment Fund and e-waste management are described in detail in the Project management arrangement under Section V Management Arrangement. Since early stage of project formulation, PPG stage, and project document preparation, the Executing Agency, FECO/MEP, and the International Implementing Agency, UNDP, have conducted extensive and exhaustive consultation sessions, including a stakeholder workshop, with all key relevant stakeholders and project partners to exchange experience and knowledge to facilitate effective project design and formulation where stakeholder's interest and influence were assessed. FECO/MEP also undertook numerous consultative missions to evaluate provinces, municipalities, cities and enterprises for their selection as demonstration locations and demonstration enterprises, including evaluation of different environmentally friendly processing technologies.

On the national level, inter-ministerial cooperation and coordination are periodically carried out on policy, enforcement and strategy matters. The national 12th Five Year Development Plan on environmental protection when WEEE was included for the first time, and the provincial and municipality level Five Year Development Plan serve as the strategic guidance to undertake environmentally sound WEEE management.

On the international level, consultations and coordination have been effectively conducted with bilateral donors and international organizations on carrying out related activities. This has proven useful in international experience and knowledge exchanges during project implementation.

All these cooperation and coordination efforts have been proven effective during project design and formulation, and the well-established mechanism will continue to be used, and their interest and influence will be taken into full consideration during project implementation to generate efficient and effective stakeholder engagement.

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF).

The overall socioeconomic benefit of the project is derived from the elimination of POPs releases that having significant negative impacts on biological resources, inclusive of human health. The associated risk reduction at both a local and national level will positively impact the productivity of populations and reduce the financial burden imposed by potentially degraded public health, as well as contributing to general wellness, economic development and quality of life. This is particularly true for vulnerable parts of the population and for maternal health that would be improved by reduced POPs and PTS exposure.

More specific socioeconomic benefits from the project are associated with its proactive approach to integrating the informal sector into a properly managed and funded WEEE management system. The informal sector generally involves low income sectors of the population who currently undertake the polluting informal processing of WEEE, essentially in their home environments with the significant health effects on all ages and genders in close proximity. The transition of dismantling and primary processing activities to appropriately sited and equipped locations supported by collective environmentally sound infrastructure and operating with appropriate workplace standards will positively change this situation, as well as better assuring an equitable distribution of revenues for labour provided.

One specific aspect that a formal EPR based system can offer is to ensure that sufficient financial incentive exists for the collection and pre-treatment (dismantling) of all WEEE regardless of value which without the financial incentives at this level does not happen in an informal system. In addition to the environmental benefit of maximizing waste stream capture, it serves to create additional income for bottom income tier of the system with associated positive social impacts.

At the same time, it is recognized that the transition of WEEE processing in China from the informal to formal sector will potentially cause some socio-economic changes as individuals and communities adjust to the more structured but environmentally sustainable system. The project itself assists in ensuring this aspect is considered in the design and implementation of the EPR system by maximizing integration of informal sector resources into the system. With a carefully organized and calibrated approach towards bringing the current informal sector into the formal recycling system, the informal sector can move up the value chain bringing their income levels up from current low levels. Additionally, these considerations will need to be factored into the tools developed in Component 3 that will allow the national level to provide direction to local level and other international initiatives intended to mitigate historical environmental and health impacts from traditional informal sector activities.

In daily life, men, women, and children are exposed to different kinds of toxic chemicals include POPs in varying concentrations. The level of exposure to toxic chemicals – as well as the resulting impacts on human health – is determined by social as well as biological factors. The increasing use of appliances in homes and business, combined with shorter lifecycle of appliances, has drastically increased the volume of e-waste globally and domestically in China. Generally the level and type of harmful substances are not depending on whether the e-waste is treated in large or small scale, or indeed whether mechanical or manual step are utilized. There is however, a large difference in the scale of harmful releases depending on whether e-waste treatment is conducted under controlled and systemized circumstances by operators that are aware of the various hazards or treated uncontrolled by unaware processors.

In China, WEEE dismantling process employs more primitive, manual technology. As WEEE itself contains persistent toxic chemical contaminants (such as heavy metals, dioxins, brominated flame retardants, etc.) which will be released into the environment through improper treatment process, serious threats are imposed to the ecological system and the human health at the dismantling site. The Chinese WEEE recycling industry is related to severe health and safety risks for labours in this industry. The risks come from inadequate methods during the recovering procedures such as open burning of wires and the chemical treatment of circuit boards and electronic parts. The labours' health is not protected since there are not precautionary measures adopted in the informal sector. Therefore occupational diseases related to skin, stomach, respiratory tract and other organs have been found. Many of the workers in dismantling and processing e-waste informally are women children and thus women and children become the group most directly impacted by the health risk in the work place, as well as due to exposure in the contaminated sites where most of this group inhabited.

By addressing the POPs/PTS release in WEEE processing, health risks for the female workers and their children will be reduced from exposure of POPs/PTS leading to ameliorated health situation for them. During implementation, the project will address the priority concerns of vulnerable groups including female workers and the poor to assess and strengthen capacity to reduce POPs/PTS release sensitive streams. The project will ensure female participation in the related activities of training and capacity building. In addition, there will be two overarching interventions – awareness raising and multi-stakeholder's participation – that will contribute to ensuring the successful implementation of gender mainstreaming.

The direct global environmental benefits will involve assurance of significant elimination of POPs/PTS releases, primary POPs in the form of PCDD/F and PBDD/F that would otherwise be released on an ongoing basis in the absence of adoption of sustainable BAT/BEP based processing, but also covering the release of PBDEs and PCBs from random land disposal of processing residuals. At this point, the only readily quantifiable release reductions are for PCDD/F which if a conservatively estimated proportion of WEEE processed by the informal sector using open burning of cable, and printed circuit boards were eliminated could result in up to 655 gI-TEQ/year in PCDD/F reductions and avoidance of up to 8.3 t/year of PBDE either combusted or disposed of by random land disposal. The project will undertake quantification of the additional release reductions associated with other POPs and various heavy metals which are also anticipated to be globally significant. It should also be noted that the project compares favorably in term of GEF grant cost effectiveness measured in US\$/g I-TEQ PCDD/F release reduction relative to already approved projects in China primarily addressing GEF-5 Chemicals Focal Area Strategy Outcome 1.3 and Indicator 1.3

Two associated areas of significant global environmental benefit from the efficient and sustainable operation of the planned national WEEE management system are the reductions in releases of heavy metals from traditional WEEE processing practice and that methodology will be developed for e-waste business on carbon emission reduction trading. The reduction in heavy metal releases is estimated at 1,000 ton of lead.

In terms of carbon emission reduction trading, as the biggest challenge for e-waste management in China is the difficulty for the formal sector to compete with the informal sector as the formal sector takes care of environmental and health issues in their e-waste management activities, hence incurring higher cost, while the informal sector can generate higher profit without considering the negative environmental and health impacts. As a result informal sector can pay a much higher premium for the raw materials than the formal sector.

Even with the subsidies under the EPR Treatment Fund, the electrical and electronic producers still have to pay a higher cost for e-waste management, the financial support is still not sufficient for the formal sector to compete with the informal sector. It is necessary to identify other channels to further support the formal sector to compete or even to integrate the informal sector to mitigate the negative environmental and health impacts of e-waste management.

As energy consumption in removing precious metals from e-waste is much less than extracting the same metals from mining, the project will also explore the potential of carbon emission reduction by developing methodologies for e-waste management in the formal sector. The project will coordinate relevant stakeholders in public and private sector to create an enabling policy and market environment for the formal sector to sell the carbon emission reduction to electronic and electronic product producers for carbon emission reduction. Partnership between the government and carbon trading market in China and other countries will be strengthened so that the methodology and the carbon credit can be accepted globally. The main outputs will include:

- a. Evaluation conducted to analyze the carbon emission potential for the e-waste management.
- b. Methodologies developed for the formal sector for the e-waste management
- c. Working mechanism established for the government as well as the carbon trading exchanges in China to endorse the relevant methodology and carbon credit.
- d. Advocacy and communication strengthened to create enabling market for the carbon credit from formal sector e-waste management while at the same time help those electrical and electronic product producers to reduce their carbon emission.
- e. Partnership with developed and developing countries strengthened so that the methodologies and carbon credit can be accepted globally.

Main partners in this activity will include the government (MEP and NDRC), business sector (Environmental Exchanges in China and other parts of the world, e-waste management companies and electrical and electronics products producers), and relevant associations and academies

B.3. Explain how cost-effectiveness is reflected in the project design.

The overall project strategy is to blend GEF funding into the overall national EPR WEEE management system development process to address the issues and principle barriers to achieving the targeted overall improvement in the environmental performance of the WEEE processing sector and the areas where GEF intervention can be of assistance in ensuring these targets are achieved and exceeded, specifically ensuring that international best practice experience and technology options are considered.

The overall result of the project will be China having an domestic WEEE management system financed by a robust sustainable EPR mechanism and operating with BAT/BEP that effectively maximizes the resource recovery potential available while eliminating the major environmental releases, particularly POPs releases currently attributed to WEEE processing. The incremental and additional cost reasoning supporting the GEF intervention relates to the use of GEF funding as an integral part of a large proactive national program with the GEF support specifically targeting areas where international experience in addressing the WEEE issue will strengthen the national program, and substantively increase its effectiveness in terms of coverage, sustainability and environmental benefits.

The specific assistance areas where GEF assistance will focus to achieve incremental/addition results are: i) the detailed design and operational implementation of the EPR mechanism to shorten the inevitable learning curve in establishing the

charges, financial flows and feedback controls to maximize its flexibility and transparency by transferring well established international experience as appropriate; ii) ensuring that it fully encompasses and appropriately charges POPs/PTS release sensitive products; iii) maximizing resource recovery efficiency and environmental performance by introduction and demonstration of internationally bench marked BAT/BEP; iv) supports the proactive integration of the currently competing informal sector into the EPR financed system that may otherwise not be a priority in design of system; v) accelerate efforts to control and eliminate the current illegal trade in WEEE that could undermine the EPR based domestic system, specifically through promotion of increased enforcement and coordination with exporting countries; and v) facilitate initiation of dealing with legacies from past practices that might otherwise be deferred.

The extensive exchange and consultation during project design and formulation with all relevant key stakeholders is key to ensure cost-effective use of GEF resources, project activities have been carefully designed, reviewed and appropriately budgeted to ensure maximum resource utilization. This is particularly true for all the demonstration activities as the demonstration locations, the demonstration enterprises, the technologies selected all went through an elaborated selection process, where the management and technological capacities were extensive evaluated, and the project budgets carefully negotiated and agreed upon.

Cost-effectiveness in project design can be evidenced by the amount of co-financing being committed, \$47 million. This reflects strong commitment of the national and local governments, the private enterprises and the international communities, to see China having an existence of a domestic WEEE management system, financed by a robust sustainable EPR mechanism and operating with BAT/BEP through inputs of international knowledge and experience, to eliminate major environmental POPs/PTS releases.

Communication and coordination with donor and international agencies working on similar interventions have been established to ensure there are no overlaps of activities and full advantage of beneficial synergies are taken. This is especially important as one of the major activities is the infusion of international experience and knowledge on EPR, WEEE management, and BAT/BEP.

Project activities have been carefully reviewed and designed to take full advantage of the project cycle, to ensure that project activities can be timely completed to achieve project objectives and outcomes.

C. DESCRIBE THE BUDGETED M & E PLAN:

Monitoring and Reporting

Project monitoring and evaluation (M&E) will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from UNDP-GEF Regional Coordination Unit in Bangkok. The Results and Resources Framework under Section III provides performance and impact indicators for project implementation along with their corresponding means of verification. These indicators, together with the POPs Tracking Tool will be used as instruments to monitor progress in POPs reduction management effectiveness and form the basis for the M&E system under this project. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and mid-term and final evaluations. The following sections outline the principal components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

The Ministry of Environment (MEP) as the national implementing agency will designate the National Project Team (NPT) to be responsible for the organization of the M&E activities as stated in table below.

Project Inception Phase

A Project Inception Workshop (IW) will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representative from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate to inform the key stakeholders the goal, objectives and management arrangement of the project, mobilize them to actively participate in the implementation of this project. A fundamental objective of the Inception Workshop will be to assist the project team to understand and take ownership of the projects goal and objective, as well as to finalize preparation of the project's first annual Work Plan (AWP) on the basis of the Results and Resources Framework, along with M&E plan, with concise and measurable performance indicators and in a manner

consistent with the expected outcomes of the project. Additionally, the purpose and objective of the Inception Workshop will be to: (i) introduce project staff to the UNDP-GEF team which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Review Report (ARR), Annual Review Meetings, audited financial statements, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings. The IW will also provide an opportunity for all parties to understand their 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 and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase. NPT will prepare the Inception Report to summarize the outputs and achievement of the workshop.

Monitoring responsibilities and events

A detailed schedule of project reviews meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

Day-to-day monitoring of implementation progress will be the responsibility of the Project Coordinator based on the project's Annual Work Plan and its indicators. The National Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

The Project Coordinator, the National Technical Advisor, and the Chief Technical Advisor will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP-CO and assisted by the UNDP-GEF Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local project management offices will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

Measurement of impact indicators related to global benefits will be done according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions, or through specific studies that are to form part of the projects activities. Indicators of project goal, progress and performance will be continuously monitored and evaluated throughout the whole project life.

Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

UNDP-CO and UNDP-GEF RCU as appropriate, will conduct yearly visits or more often based on an agreed upon schedule to be detailed in the project's Inception Report / Annual Work Plan to assess first hand project progress. Any other member of the Steering Committee can also accompany, as decided by the Steering Committee. A Field Visit Report will be prepared by the UNDP-CO and circulated no less than one month after the visit to the project team, all Steering Committee members, and UNDP-GEF.

Annual Monitoring will occur through the Tripartite Review (TPR). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The project proponent will prepare an Annual Project Report (APR) and submit it to UNDP-CO and the UNDP-GEF RCU at least two weeks prior to the TPR for review and comments.

The APR will be used as one of the basic documents for discussions in the TPR meeting. The project proponent will present the APR to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The project proponent also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

The Terminal Tripartite Review (TTR) will be held in the last month of project operations. The project proponent is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF's Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The Terminal Tripartite Review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation or formulation.

The TPR has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

Verify performance indicators

During the implementation of the project, NPT, in collaboration with UNDP-CO and with assistance by the LPMOs, will organize the activities for verifying performance indicators. Detailed M&E schedule will be developed simultaneously with and as part of the Annual Work Plan.

UNDP-CO and UNDP-GEF RCU as appropriate, will conduct yearly visits or more often based on an agreed upon schedule to be detailed in the project's Inception Report / Annual Work Plan.

Project Reporting

The Project Manager in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. The first six reports are mandatory and strictly related to monitoring, while the last two have a broader function and the frequency and nature is project specific to be defined throughout implementation.

A Project Inception Report (IR) will be prepared immediately following the Inception Workshop. It will include a detailed work plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This work plan will include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 month time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit will review the document.

An Annual Project Report (APR) shall be prepared by the Project Manager and shared with the Project Steering Committee. As a self-assessment by the project management, it does not require a cumbersome preparatory process. As minimum requirement, the Annual Project Report shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the project level. As such, it can be readily used to spur dialogue with the Project Steering Committee and partners. An APR will be prepared on an annual basis prior to the Project Steering Committee meeting to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The APR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance.

The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by the CO together with the project team. The PIR should be participatorily prepared in July and discussed with the CO and the UNDP/GEF Regional Coordination Unit during August with the final submission to the UNDP/GEF Headquarters in the first week of September.

Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP-Country Office and the UNDP-GEF RCU by the project team.

UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly following the finalization of the quarterly. The Project Manager should send it to the Project Steering Committee for review and the Implementing Partner should certify it. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. It will be the responsibility of the Project Manager to track, capture and assign issues, and to ensure that all project issues are appropriately addressed; (ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks. It will be the responsibility of the Project Manager to maintain and update the Risk Log, using Atlas; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. It is the responsibility of the Project Manager to maintain and update the Lessons Learned Log.

Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. 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 activities.

Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

Project Publications such as knowledge products and compilations of lessons learned will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

Independent Evaluations, Audits and Financial Reporting

The project will be subjected to at least two independent external evaluations as follows: An independent Mid-Term Review will be undertaken at exactly the mid-point of the project lifetime. The Mid-Term Review will determine

progress being made towards 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. Furthermore, it will review and update the ESSP report. 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 review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term review will be prepared by the UNDP-CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

An independent Final Evaluation will take place three months prior to the terminal Project Steering Committee meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information dissemination networks and forums. New channels will be created to strengthen the knowledge sharing among the public. Knowledge sharing will support the development of national policies, guidelines, regulations, financial mechanisms.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identification and analysis of lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered at least once in every 12 months. UNDP-GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned.

Audit Clause

The Government will provide the Resident Representative 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 financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

M&E ACTIVITIES, RESPONSIBILITIES, BUDGET AND TIME FRAME

Type of M&E Activity	Responsible Parties	Budget GEF	Budget Co-financing	Budget US\$ (Excluding project team Staff time)	Time frame
Initiate the project by Inception Workshop (IW)	National Project Team (NPT)	30,000	60,000	90,000	Within first three months of project start up
Prepare Inception Report	NPT			Included in IW	Submit draft two weeks before IW, finalize two weeks after IW
Verify impact indicators, project progress and performance by field visits, questionnaires, interviews and monitoring as appropriate	NPT, Project Manager to oversee and designate responsibilities	170,000	340,000	510,000	Annually, prior to APR/PIR as defined in AWP

Prepare Quarterly Progress Reports	NPT			None	Quarterly
Prepare Annual Project Reports (APR) and Project Implementation Reviews (PIR)	NPT in collaboration with UNDP-CO and UNDP-GEF	20,000	40,000	60,000	Annually, before ARM
Convene Annual Review Meetings ARM)	Project Coordinator in collaboration with UNDP-CO	80,000	160,000	240,000	Annually
Prepare minutes for Annual Review Meetings	UNDP-CO			Included in ARM	Two weeks after meeting
Carry out annual project financial audits	Independent Audit Entity	20,000	40,000	60,000	Annually
Carry out mid-term review and final external evaluation	PT, UNDP-CO, External Consultants	120,000	240,000	360,000	Mid and End of the project
Prepare Terminal Report, with social and economic impact assessment	PT, UNDP-CO, local consultants	40,000	80,000	120,000	Two months after project completion
Lessons Learned	PT, UNDP-CO, UNDP-GEF	10,000	20,000	30,000	Annually
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP-CO, UNDP-GEF (as appropriate), Government Representatives	10,000	20,000	30,000	Annually as required
TOTAL Indicative Cost excluding expenses of NPT and UNDP		500,000	1,000,000	1,500,000	


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

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Jiandi Ye GEF Operational Focal Point, China	Director, International Financial Institution, Division III, International Department	Ministry of Finance	02/28/2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date	Project Contact Person	Telephone	Email Address
Adriana Dinu, UNDP-GEF Officer-in-Charge and Deputy Executive Coordinator		26 December 2013	Suely Carvalho, GEF Principal Technical Advisor for POPs/Ozone UNDP/MPU/Chemicals	+1 212 906 6687	suely.carvalho@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK

The Project Results Framework is presented below and in Section III of the Project Document (pages 24 to 32).

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
Project Objective The project will address the POPs/PTS release sensitive e-waste stream in the recycling, dismantling, treatment and final disposal processes of Waste Electrical and Electronic Equipment (WEEE).	Efficient and functional EPR and WEEE management system Amount of WEEE treated by permitted recyclers in the three demonstration locations Number of facilities replicating or establishing sound WEEE recycling Numbers of workers received training in sound WEEE processing	EPR Treatment Fund established but not efficiently operational Over 2 million units of WEEE collected and processed by permitted recyclers at the 3 demonstration provinces / municipality	National policy about EPR finalized Improved operational mechanism of EPR Treatment Fund and WEEE management At least 250 management personnel at national and demonstration locations trained on EPR concept and WEEE management system Estimated 50% increase of WEEE collected and processed At least 2 BAT/BEP technologies for pre-treatment demonstrated and relevant technical guidelines finalized At least 2 BAT/BEP technologies for disposal demonstrated, end gas discharge of PCDD/PCDF to meet pollution control standards for hazardous waste incineration if incineration technology selected. Relevant technical guidelines finalized At least 25,000 technical workers trained on BAT/BEP and sound WEEE processing	List of registration and permitted recyclers EPR Treatment Fund disbursement records	<u>Risks:</u> <ul style="list-style-type: none"> - Insufficient funds generated to adequately attract process facility and associated infrastructure investment - Technology limited in eliminating POPs/PTS release - Lack of interest to participate in diverting WEEE from informal to formal processing facilities - Sustained informal operations due continued illegal WEEE imports <u>Assumptions:</u> <ul style="list-style-type: none"> - International experience injected appropriate to improve EPR based WEEE management - BAT/BEP technologies suitable and applicable to Chinese context - Increased formal collection and economic incentives facilitates diversion of WEEE to formal processing facilities

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
	Market based WEEE processing infrastructure demonstrated and developed	Low rate of WEEE collection and recycling by formal sector Dominated by primitive and manual processing of WEEE	Demonstration of collection successfully completed at selected enterprises. Technology demonstration activities at selected enterprises at the three demonstration provinces/municipality successfully completed Over 5,000 ton of BFR containing plastic/resins performed/reused annually Over 5,000 tons of CRT to be recycled annually from environmental emission annually in the demonstration locations 5 WEEE technical guidelines about eco-design finalized Eco-design for at least one electrical and electronic equipment developed	Technology improvement and records of POPs/PTS release	
	Informal WEEE processing facilities upgraded and integrated into EPR system through diversion into formal processing facilities Number of newly registered WEEE processors	Large percentage of WEEE is estimated to be collected and processed by the informal sector Zero	Three types of WEEE collection/recycling demonstrated and successfully completed at three selected provinces/municipality. Increase WEEE collected and channeled by informal or newly registered (ex-informal) collectors to formal recycling enterprises for treatment New WEEE entities registered and qualified and eligible to receive EPR Treatment Fund subsidies	List of registered recyclers	

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
Component 1: Develop and implement national EPR system for WEEE					
Outcome 1.1 Operational national EPR system covering priority POPs/PTS release sensitive E-Waste streams	Expected Outputs: 1.1.1 National EPR Treatment Fund supporting environmentally sound WEEE collection, dismantling and processing operations is established and disbursing with coverage of POPs sensitive e-waste. 1.1.2 International experience on EPR system management and control of WEEE material and financial flows in the WEEE management chain delivered through training particularly with respect to POPs sensitive e-waste stream components. 1.1.3 Integrated information/data management system providing current data covering national, regional and local levels of the WEEE management chain operating in support of the EPR system.				
	Number of companies in EPR system	Approximately 120 formal enterprises	All newly established and qualified formal enterprises are required to be registered	EPR Treatment Fund annual activities and financial reports List of registered recyclers	Risks: - Insufficient funds generated to adequately attract process facility and infrastructure investment, particularly for POPs/PTS release sensitive products Assumptions: - International experience and strengthened capacity will improve EPR WEEE management and administration and operation of EPR Treatment Fund - An efficient and functioning registration and permitting established to attract registration of formal and informal processing facilities
	Amount of WEEE processed by companies receiving EPR Treatment Fund	2,000,000 units WEEE collected and processed at the three demonstration provinces/municipality	Estimated 50% increase in WEEE collected and processed in the demonstration locations		
	Amount of fund disbursed by the EPR Treatment Fund		Nationally, RMB 500 million disbursed annually from EPR Treatment Fund		
	At least one training per year conducted disseminating international EPR experience	No training with input of international experience	3 trainings conducted	Training material and list of participants	
	Integrated information/data management system installed and utilized by MOF for disbursement under the EPR Treatment Fund	Preliminary database used by MOF to calculate and manage subsidy and disbursement	Fully established data-base, with all EPR Treatment Fund disbursements released through the Integrated Information Data Management System	Annual reports on the mass flows handled by registered WEEE processors	
Outcome 1.2 Adopted and implemented national technical standards and operational business documentation governing the management of WEEE in support of the EPR system.	Expected Outputs: 1.2.1 Technical standards defining targeted high POPs/PTS release sensitive WEEE (e-waste) streams, and applicable WEEE management chain technology performance, adopted and implemented.				
	Number of technical standards established	No specific technical standard document available for collection, logistics, pre-treatment, material recovery and hazardous waste disposal	2 technical standard documents finalized	Technical standards documents finalized	Risks: Resistance in compliance and inadequate enforcement effort Assumptions: Standards guiding proper WEEE processing to reduce POPs/PTS release

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
Outcome 1.3 Applied LCA/LCM procedures and labeling for product design and production.	Expected Outputs: 1.3.1 Guidance documentation for LCA/LCM and associated eco-labeling applied to product design and production for waste minimization and R&R processing optimization in use.				
	Five eco-design standard documents Electric and electronic product eco-design developed	None exist	Eco-design document finalized and made available Eco-design for at least one electrical and Electronic equipment developed	Eco-design standard document finalized	Risks: Lacking interest in adopting LCA/LCM by manufacturers Assumptions: Eco-design and cleaner production adopted in POPs/PTS sensitive release products
Outcome 1.4 Achieved public awareness and stakeholder consensus on the detailed design and implementation of the national EPR system.	Expected Outputs: 1.4.1 Stakeholder consultation program involving product producers, government implementing agencies, distributors, consumer representatives and NGOs at all levels on EPR system implementation through workshops, and input solicitation on disseminated documentation implemented. 1.4.2 Public awareness initiatives respecting the EPR system in the form of information product dissemination delivered.				
	One stakeholder nodal body is established	No coordination body exist for WEEE stakeholders	1 multi-stakeholder platform established	Status of the nodal body	Risks: Difficult in coordination and collaboration
	At least one public awareness campaign conducted every year	None. Level of awareness to be established during first year of implementation	3 public awareness campaigns conducted in the demonstration provinces/municipality	Publications, audio visual and other promotion materials Surveys on awareness	Assumptions: Multi and inter-ministerial will facilitate consensus in legislative and technology improvement
Outcome 1.5 Implementation of effective discrimination between second hand product and e-waste imports.	Expected Outputs: 1.5.1 Strengthened policy, regulations and enforcement covering the expanded controls on second hand product and e-waste imports 1.5.2 Training and detection enhancement for improved discrimination between e-waste and second hand product imports consistent with Basel Convention requirements and guidance in place. 1.5.3 Strengthened bi-lateral cooperation and coordination with major exporting countries implemented.				
	Training Guidelines for the control of imports are made available to the relevant government agency	None existed	Guidelines compatible with Basel Convention finalized and made available and used by relevant government agencies	Guideline documents	Risks: - Continued illegal imports due economic considerations and prolonged end of life of WEEE due consumer habits
	Training program and workshop	None implemented	Guidelines documents of the Basel Convention are used	Guideline documents	Assumptions: - Established infrastructure and strengthened capacity for enforcement efforts

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
	Criteria for discrimination between e-waste and second hand product established and used by relevant government authorities	None implemented	Guideline documents of the Basel Convention are used as reference	Guideline documents	
	Contacts and communication with major exporting countries established	No active activities	Possibilities and mechanisms of cooperation and coordination explored and activities initiated	Cooperation and coordination arrangements	
Component 2: Demonstration and development of market based WEEE processing					
Outcome 2.1 Utilization and upgrading of the existing domestic WEEE collection system to efficiently and cost effectively supply registered WEEE processing facilities particularly for POPs/PTS sensitive e-waste constituents.	Expected Outputs: 2.1.1 Comprehensive characterization of current WEEE and specifically e-waste collection chain, inclusive of developing and documenting the identified measures necessary to optimize the collection chain.				
	Diagnostic studies and action plan conducted with at least one recycler in each demonstration province.	None	3 diagnostic reports and action plan finalized	Diagnostic reports and action plans	<u>Risks:</u> unclear and scarce data availability; inadequate collection from coverage area <u>Assumptions:</u> Improved collection system will divert WEEE to formal processing facilities
Outcome 2.2 Operation of a comprehensive national network of registered WEEE processing facilities to dismantle and process POPs/PTS release sensitive materials in an environmentally sound manner utilizing demonstrated BAT/BEP technologies.	Expected Outputs: 2.2.1 Registration of WEEE processing operations including those handling POPs/PTS sensitive e-waste implemented and required upgrading/expansion opportunities identified. 2.2.2 Technology selection and operational technical guidelines appropriate to various scale levels of WEEE processing developed. 2.2.3 BAT/BEP technology demonstration initiatives investments targeting on POPs/PTS release sensitive e-waste materials undertaken. 2.2.4 At least one center created for processing of high value materials (i.e. printed circuit boards) to recover precious metals) at qualified non-ferrous metals smelter(s). 2.2.5 Existing and new formal dismantling and processing operations supported based on incremental requirements matched to market growth such that a network of major regional facilities are operational. 2.2.6 Policy, technology, and management support and promotion of demonstration activities in the three demonstration provinces/municipality				
	Authorized recyclers registered with the EPR Treatment Fund	Only about 120 formal recyclers registered	All newly established formal recyclers in the demonstration provinces/municipality are registered	Extract of EPR Treatment Fund registry	<u>Risks:</u> - Continued operation of informal sector will not provide adequate volume to formal processing

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
	Operational Guidelines for upgrading to technical standards are made available	None	3 operational guideline documents finalized and made available	Guideline documents	facilities - Technologies not directly targeting POPs/PTS sensitive release products <u>Assumptions:</u> - BAT/BEP technology suitable and application to Chinese processing enterprises to reduce POPs/PTS release - Complete registration of formal processing facilities and increased registration of informal processing facilities
	Technical guidelines for pre-treatment of WEEE prepared	Not existed	Technical guideline for pre-treatment of WEEE finalized and made available	Guideline documents	
	Demonstration initiatives implemented with at least one recycler in each demonstration province/municipality	None	3 demonstration activities implemented	Completion reports Technical reports from demonstrations	
	Risk assessment undertaken to evaluate the establishment of a network of regional facilities	None	At least 3 assessment reports completed	Recommendations and action plans	
	At least one non-ferrous metal smelter processing printed circuit boards with precious metal recovery >85 %	None	Emission meeting pollution control standard for hazardous wastes incineration	Material flow audits at non-ferrous metal smelter	
Component 3: Upgrading of informal WEEE processing and its integration into the EPR System					
Outcome 3.1 Characterization of overall national scale, scope and impacts associated with the informal e-waste processing inclusive of identification high priority regions and centers.	Expected Outputs: 3.1.1 National informal WEEE sector characterization study of the informal WEEE processing sector, particularly that handling POPs/PTS sensitive e-waste undertaken. 3.1.2 Guidance and procedural documentation for undertaking environmental and health impact evaluations of potentially impacted areas and locations at the local level prepared and disseminated.				
	Characterization study highlighting the most critical processes from the informal WEEE recycling sector undertaken	Several reports mentioned the informal sector but data not clear due to data scarcity	Characterization study report completed and finalized	Project documentation Characterization study report	Risks: Difficulties in getting clear data on informal sector <u>Assumptions:</u> A better understanding of the informal sector will facilitate their integration into the EPR system
	Guidance document completed and information disseminated	No guidance document available on the measurement of impacts associated with informal recycling	Guidance document finalized	Guidance document	
Outcome 3.2 Provision of policy, regulatory	Expected Outputs: 3.2.1 Model regulations and guidance materials on the supervision of WEEE processing at the local level developed and disseminated.				

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
enforcement and awareness support provided through MEP to the local level related to supervision of the informal WEEE sector.	3.2.2 Awareness and assessment programs on the control and impacts of informal WEEE processing for local officials, operators and the public developed and delivered.				
	WEEE flows from informal sector to registered recyclers are monitored by the EPR Treatment Fund	No registered exchange between informal and formal recyclers	Enforcement actions on informal recyclers and efforts to divert e-waste to formal sector	Audit reports on mass flows	<u>Risks</u> : difficulties in getting a clear picture on the informal sector <u>Assumptions</u> : A clear understanding of the informal sector will facilitate supervision and monitoring of their activities and help in their integration into the EPR system
	At least one awareness campaign conducted in each demonstration province/municipality	None	3 awareness campaigns conducted	Publications, printed, audio visual and promotion materials	
Outcome 3.3 Demonstration of collective infrastructure supporting informal WEEE processors and providing environmentally sound dismantling operations related to POPs/ PTS release developed and integrated with the national EPR system recycling network for further processing.	Expected Outputs: 3.3.1 Collectives formed from informal dismantling/processing operations established, inclusive of common support infrastructure and links to environmentally sound processors/residual disposal facilities. Pilot interventions in the collection chain to optimize efficiency, particularly related to primary product separation for direction to recycling facilities undertaken				
	Pilot interventions implemented based on technical standards for collection and logistics	None	At least 3 pilot interventions implemented	Contracts for pilot implementation	<u>Risks</u> : Continued operation of the informal sector due to economic reason will not provide adequate quantity of WEEE to formal processing facilities <u>Assumptions</u> : Improved WEEE collection by formal collection system and economic incentives to informal collection will facilitate diversion of WEEE to formal WEEE processing facilities
Component 4: Project Monitoring and Evaluation					
Outcome 4.1 Monitoring and evaluation, knowledge sharing and information dissemination	Expected Outputs: 4.1.1 Monitoring, evaluation and impact assessment 4.1.2 Knowledge sharing and post-project action plan				
	Timing and quality of annual (APRs, PIRs etc.) and M&E reports	Indicative M&E plan, budget and timeframe	M&E activities implemented as scheduled and project implementation monitored to achieve project objectives	Various M&E and substantial reports	<u>Risks</u> : failure to exercise timely and effective M&E activities due to capacity issue <u>Assumptions</u> : Efficient M&E to facilitate achievement of outcomes and project objectives
	Quality appraisal in Mid-Term Review and Terminal Evaluation			Mid-Term Review and Terminal Evaluation reports	
	Lessons learnt and experience documented and disseminated; post-project action plan formulated	None	Lessons and experience documented and disseminated	Knowledge products; post-project action plan	

	Indicator	Baseline	End of Project Target	Source of Verification	Risks and Assumptions
Component 5: Project Management					
Outcome 5.1 Strengthened project management capacities and efficiency	Expected Outputs: 5.1.1 Strengthened institutional capacity for project management in MEP and three demonstration provinces/municipality 5.1.2 Project smoothly implemented and all results specified achieved.				
	Timely project implementation and disbursement	Existing staff	Capacity of National Project Team strengthened. In addition to existing staff, a Project Coordinator and a secretary are recruited. National Project Team established, staffed, equipped and trained	Project APRs, PIRs, CDRs	<u>Risks:</u> Inadequate capacity and insufficient coordination will impact project implementation <u>Assumptions:</u> Efficient project management will lead to timely achievement of outcomes and project objectives
	LPMO established in each demonstration provinces/city furnished with staff and equipment	None	LPMOs at each demonstration province/city established, staffed, equipped and trained	Organization structure, training reports	
	Project Implementation Manual (PIM) developed	PIM for other GEF project can be used as reference	PIM finalized and used as guidance for project implementation	PIM Documents	
	Staff of PT and LPMOs staff trained about the PIM and relevant requirements of GEF and UNDP on project management	None	Staff trained and project management capacity strengthened	Training reports	
	Routine project management activities undertaken to ensure the smooth and timely implementation of the project. The activities include but not limited to: drafting TORs, select and contract with consultants, organize M&E activities, organize the review of substantial report	None	Efficient and effective project management leading to achievement of project objectives	Progress and annual reports, mission reports and achieved outcomes	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

[illegible]

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: \$220,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed but not yet disbursed</i>
Scope definition for EPR system design and implementation mechanisms, national level stakeholder/public consultation, and control measures	54,000	26,158	27,842
Scope definition on existing collection, dismantling and processing infrastructure, and demonstration of BAT/BEP	62,000	36,970	25,030
Scope definition on informatl WEEE sector	56,000	47,916	8,084
Project Document and CEO Endorsement Request preparation	48,000	20,049	27,951
Total	220,000	131,093	88,907

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A

⁵ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.