



REQUEST FOR CEO APPROVAL¹

PROJECT TYPE: Medium-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT INFORMATION

Project Title: Investment promotion on environmentally sound management of electrical and electronic waste: Up-scale and promotion of activities and initiatives on environmentally sound management of electrical and electronic waste			
Country(ies):	Ethiopia	GEF Project ID: ²	
GEF Agency(ies):	UNIDO (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	Ethiopia Environmental Protection Authority; Ministry of Communication, Information and Technology	Submission Date:	
GEF Focal Area (s):	Persistent Organic Pollutants	Project Duration(Months)	24
Name of Parent Program (if applicable): For SFM/REDD+ <input type="checkbox"/>		Agency Fee (\$):	100,000

A. FOCAL AREA STRATEGY FRAMEWORK³

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
(select) CHEM-3	3.2 Contribute to the overall objective of the SAICM of achieving the sound management of chemicals throughout the life-cycle of electrical and electronic equipment in ways that lead to the minimization of significant adverse effects on human health and the environment.	3.2.1 Countries receiving GEF support to implement SAICM relevant activities, including addressing substances and other chemicals of global concern (other than mercury), on a pilot basis.	GEF TF	955,000	1,843,555
Subtotal				955,000	1,843,555
Project management cost ⁴			GEF TF	45,000	112,000
Total project costs				1,000,000	1,955,555

B. PROJECT FRAMEWORK

Project Objective: Promote and up-scale the management of e-waste activities in Ethiopia						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
Policy and regulatory support	TA	1. National e-waste strategies including	1.1 The project is integrated in the	GEF TF	150,000	820,000

¹ It is important to consult the GEF Preparation Guidelines when completing this template

² Project ID number will be assigned by GEFSEC.

³ Refer to the Focal Area/LDCF/SCCF Results Framework when filling up the table in item A.

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

		necessary legislative and policy measures on the sound management of e-waste are established.	national stakeholder process related to the development of a national e-waste management strategy. 1.2 Legal and policy frameworks are established. 1.3 The existing studies are verified and a database projecting e-waste flows in the future is established. 1.4 Dissemination of the established e-waste management strategy via the BCRCs to other African countries.				
Enlargement of current operations	TA	2. The existing infrastructure to treat e-waste is reviewed and up-scaled in order to operate higher volumes, according to environmental and health standards and to be sustainable.	2.1 An effective e-waste collection scheme is designed and implemented 2.2 A business model for the dismantling facility is developed. 2.3 The operation of Akaki facility are improved and adjusted, so the facility can serve as a regional training center and model in East-Africa. 2.4 General awareness about e-waste is raised and the established collection scheme is promoted. 2.5 Co-operations with international smelters are established.	GEF TF	745,000	973,555	
Evaluation and Monitoring	TA	3. The e-waste management strategy is evaluated and monitored.	3.1 The project is monitored on a regular basis. 3.2 The project is evaluated by an external evaluator.	GEF TF	60,000	50,000	
Subtotal						955,000	1,843,555
Project management Cost ⁵					GEF TF	45,000	112,000
Total project costs						1000000	1,955,555

⁵ Same as footnote #4.

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

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
Others	US Environmental Protection Agency	Grant	175,000
Others	Solving the E-waste Problem Initiative	In-Kind	817,080
Local Government	Ethiopian Ministry of Communication and Information Technology	Grant	257,143
Local Government	Ethiopian Ministry of Communication and Information Technology	In-Kind	210,000
Local Government	Ethiopia Environmental Protection Authority	Grant	10,000
Local Government	Ethiopia Environmental Protection Authority	In-Kind	406,332
Private Sector	Cascade Asset Management	Grant	5,000
Private Sector	Nokia	Grant	15,000
GEF Agency	UNIDO	In-Kind	30,000
GEF Agency	UNIDO	Grant	30,000
Total Co-financing			1,955,555

D. GEF/LDCF/SCCF/NPIF 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
UNIDO	GEF TF	Persistent Organic Pollutants	Ethiopia	1,000,000	100,000	1,100,000
Total Grant Resources				1,000,000	100,000	1,100,000

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Estimated Person Weeks	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
Local consultants*	238.00	198,000	12,000	212,000
International consultants*	236.00	390,000	200,000	590,000
Total		588,000	212,000	802,000

* Details to be provided in Annex C.

F. PROJECT MANAGEMENT COST

Cost Items	Total Estimated Person Weeks/Months	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
Local consultants*	82.50	8,750	30,000	38,750
International consultants*	69.00	36,250	30,000	66,250
Office facilities, equipment, vehicles and communications*			22,000	22,000
Travel*			30,000	30,000
Others**	Specify "Others" (1)			0
	Specify "Others" (2)			0
Total		45,000	112,000	157,000

* Details to be provided in Annex C.

** For others, to be clearly specified by overwriting fields *(1) and *(2).

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

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

H. DESCRIBE THE BUDGETED M & E PLAN:

Monitoring and evaluation will be built into each step of the project, including the indicators in Annex A. Progress will be evaluated at each step of the process. Reports will document each step of the process. After the design of the e-waste management system (collection, preprocessing, dismantling, end-processing) in Ethiopia, a report will be prepared with detailed information on the achievements and the challenges faced. This report will be provided to the multi-stakeholder Ethiopian E-waste Working Group (EEWoG), established under the current United Nations University-Solving the E-waste Problem (UNU-StEP) and EPA work, and reviewed and adjusted, as necessary. This report will be shared with the Basel Convention Regional Centers (BCRC) for review and comment, and ultimate dissemination to the Region. Another report will be prepared after the implementation of the collection system and scaling up of the facility. The project implementation reports (PIRs) will be prepared annually by UNIDO and reviewed and approved by the Working Group and other stakeholders. An additional evaluation report will be prepared at the end of the project by an external evaluator, in accordance with UNIDO's rules, with a thorough review and consultation process.

In the Logframe in Annex 1, all indicators and their means of verification are described, along with the evaluation and monitoring process. The project progress, the deliverables and the reports will be further reviewed on a regular basis by the Ethiopian Working Group -- EEWoG.

The final evaluation report will be conducted by an external evaluator, with results reported to all national and international stakeholders.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. The GEF focal area/LDCF/SCCF strategies/NPIF Initiative:

The GEF-5 Sound Chemicals Strategy, and specifically the objective of the GEF-5 CHEM 3 Focal Area, focuses on sound chemical management beyond POPs, and on the achievement of the Strategic Approach to International Chemical Management (SAICM) objectives. The SAICM is a policy framework to promote chemical safety around the world. SAICM has as its overall objective the achievement of the sound management of chemicals throughout their life cycle so that, by 2020, chemicals are produced and used in ways that minimize significant adverse impacts on human health and the environment. E-waste is an emerging issue for the GEF, and this proposal is consistent with GEF's Concept Paper on GEF5 E-Waste Programme Under Sound Chemicals Strategy.

As one piece of the GEF e-waste strategy, the proposal focuses on building upon previous and ongoing efforts to develop a strategy for sound management of e-waste in Ethiopia. The project will strengthen and upgrade the existing Computer Refurbishing and De-manufacturing facility in Akaki, on the outskirts of Addis Ababa, and work to develop it into a national and regional training center. This project responds well to the objectives of SAICM to promote environmentally friendly handling of toxic substances and e-waste in the country. It also will work to secure further processing of the hazardous fractions in an appropriate manner. The facility will be connected to international smelters and downstream recycling facilities for the end-processing of the hazardous fractions from the e-waste (such as mother boards) to recover precious metals.

Another focus of SAICM is to strengthen the political framework for chemical management within a country. As part of the Ethiopia project, the first step will be to enhance and consolidate the recently established multi-stakeholder partnership –the Ethiopian E-waste Management Working Group (EEWoG) - to develop necessary policies and legislation to successfully implement an e-waste management strategy in Ethiopia. The project also strengthens the collaboration among Ethiopian government agencies to enable better chemical management within the government and regionally.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

A.2. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

The Environmental Protection Authority of the Federal Democratic Republic of Ethiopia (EEPA) has established the 5 years Growth and Transformation Plan, replacing the Plan for Accelerated and Sustainable Development to End Poverty in Ethiopia. In the context of the new Plan, and in line with their national obligation towards the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Ethiopia EPA, in cooperation with the Ethiopian Ministry of Information and Communication Technologies (MoCIT), has decided to focus its efforts into revitalizing and concretely defining environmental and sustainable development policies on the sound management of e-waste.

Currently, there are a variety of activities happening in Ethiopia. The NGO, PAN-Ethiopia, was contracted by EEPA to survey the e-waste situation in Ethiopia's four major cities. EEPA has drafted e-waste legislation for Ethiopia. As indicated in the Environmental Policy of Ethiopia, their overall policy goal is to *improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of the future generations to meet their own needs*. To that end, the draft regulation on the Management and Disposal of Electrical and Electronic Wastes focuses on preventing hazards to human health and environment posed by electrical and electronic wastes. It also requires that the collection, management and disposal of electrical and electronic wastes use the precautionary principle, and that recognized best management practices and best available technologies be used for e-waste. The regulation also proscribes environmentally sound procedures for operation of electrical and electronic facilities for in evaluating, testing and repairing electrical or electronic wastes. The preparation of the draft regulation has been finalized and it is expected that the Council of Ministers will ratify it by the end of the 2012 fiscal year.

MoCIT and EEPA were also involved in the development of first e-waste management guidelines in conjunction with the development of the Akaki Computer De-manufacturing facility.

Technology Needs Assessment

Ethiopia was selected in the second round to participate in the GEF-UNEP Global project entitled "Technology Needs Assessment" (GEF ID 3907). The objective of the Technology Needs Assessment project is to identify, evaluate and prioritize technological means for both mitigation and adaptation, in order to achieve sustainable development ends. The Needs Assessment also helps to identify the barriers that hinder the acquisition of the prioritized technologies for mitigation and adaptation. The project will come up with a document known as Technology Action Plans (TAP) that would specify activities and enabling frameworks to overcome the barriers and facilitate the transfer, adoption and diffusion of selected technologies in Ethiopia. The Plan has identified the need to grow the ICT sector in Ethiopia and to bring advanced communications and information technology into the country. But with this needed growth in the IT sector, comes increasing volumes of e-waste as a by-product. The TAP will have direct linkages to Ethiopia's e-waste policy and this proposed project. Further information about this project can be found on its webpage (<http://tech-action.org/about.htm>).

Climate Resilient Green Economy Strategy

Ethiopia aims to achieve middle-income status by 2025, while also developing a green economy. In terms of e-waste, this means extending the life of used electronics when possible so that less waste is created that requires

processes impacting climate change. An example is to dismantle e-waste locally and only transport the fractions that do not have a nearby downstream market to international partners for further processing. By avoiding the transport of large volumes of e-waste over a long distance, CO₂ emissions can be reduced. Following a conventional path would, among other adverse effects, result in a sharp increase in Green House Gas (GHG) emissions and the unsustainable use of natural resources. Ethiopia's strategy is being developed to avoid such negative effects and build a green economy. The Climate Resilient Green Economy (CRGE) initiative follows a sectoral approach and has so far identified and prioritized more than 60 initiatives, which could help the country achieve its development goals while limiting 2030 GHG emissions to around today's 150 Mt CO₂ - 250 Mt CO₂ -- less than estimated under a conventional development path. The Green Economy initiative is based on four pillars: (1) improving crop and livestock production practices for higher food security and farmer income, while reducing emissions; (2) protecting and re-establishing forests for their economic and ecosystem services -- including use as a carbon stock; (3), expanding electricity generation from renewable sources of energy for domestic and regional markets, and (4) leapfrogging to modern and energy-efficient technologies in transport, industrial sectors, and buildings.

The Ethiopia e-waste project will contribute to the CRGE strategy through different aspects. The reuse and refurbishment of used equipment contributes to the reduction of waste. Having an organized and efficient collection and transport system for equipment and e-waste will minimize CO₂ emissions. And the operation of the facility will be planned in a way to keep emissions at a minimum level.

National Implementation Plan (NIP) for the Stockholm Convention

Ethiopia has a variety of measures in place to address issues of chemicals management, including POPs. Ethiopia's environment policy, issued in 1997, contains several provisions relevant to chemicals management and hazardous wastes. In addition, there are legal instruments in place in Ethiopia that address some aspects of chemicals management, including POPs.

Aware of the adverse human health and environmental impacts of POPs chemicals both at the national and global level, and the need for concerted action to address such impacts, Ethiopia signed the Stockholm Convention on 17th May 2002 and ratified the instrument on 2nd July 2002. With this ratification came the requirement to establish a National Implementation Plan (NIP). As a first step in this Plan, Ethiopia prepared a National Chemical profile in 1999, which provided an initial assessment of chemicals existing at the national level, the extent of their use, and the legal, institutional, administrative and technical issues related to chemicals management in the country. The national POPs priorities for Ethiopia have been identified as:

- Legal and institutional strengthening measures,
- Production, import/export, use, stockpiles, wastes and release of Annex A POPs
- Pesticides, production, import/export, use, identification, labelling, removal, storage, release and disposal of PCBs and equipment containing PCB,
- Production, import/export, use, stockpiles, wastes and release of DDT,
- Register for specific exemptions and continuing need for exemptions,
- Measures to reduce releases from unintentional production, identification of contaminated sites and remediation in an environmentally sound manner,
- Facilitating or undertaking information exchange and stakeholder involvement,
- Public awareness,
- Information and education,
- Effectiveness evaluation,
- Reporting,
- Research, development and monitoring, and
- Technical and financial assistance

Parties of the Stockholm Convention have been requested to review and update their NIPs, as specified by a decision of the Conference of the Parties (COP). At the fourth meeting of the COP, held from 4 to 8 May 2009, the COP added nine new POPs to Annexes A, B and C of the convention, as per recommendation of the POPs Review Committee (POPRC). The NIP update process will enable Ethiopia to establish inventories of products and articles containing the newly listed POPs, and to identify the industrial processes where these POPs are still employed or

unintentionally produced. The NIP update will build on the existing national coordination mechanism and capacities established during the original NIP development, which included a National Steering Committee (NSC) involving relevant ministries and stakeholders dealing with POPs management. The NSC will be expanded to involve relevant stakeholders and experts for the management of the newly listed POPs (e.g. on electronic appliances). As the new POPs appear in electronic appliances, the updated NIP is a relevant document to provide information for Ethiopia's e-waste management strategy, and will provide synergies between among the key chemical projects taking place in Ethiopia.

Ethiopia is party to the Stockholm Convention and related international conventions such as the Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal (2000), the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (2002) and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (2002). Ethiopia will meet its commitments under these Conventions, and will continue to link these with its e-waste management strategy.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Project Approach

Based on the past activities and the current situation of e-waste generation in Ethiopia (see below for detailed information), the Ethiopian National Authorities, in cooperation with international partners, decided to design an e-waste management strategy for Ethiopia. Given the growth in the ICT sector in Ethiopia, the Ethiopian government and their partners felt that the strategy would be important to develop now, before e-waste management becomes a crisis situation, due to increased volume, insufficient capacity for managing e-waste, and lack of knowledge of appropriate treatment technologies. The project has the potential to avoid most of the negative impacts experienced in other developing countries, due to high volumes of e-waste and the lack of an e-waste management strategy. Through this pilot project, Ethiopia will be better prepared when bigger volumes of e-waste are generated, which is likely to happen in the near future. In addition, other East African countries can learn from the Ethiopia pilot project how to tackle the problem in an early stage. Our proposed strategy for Ethiopia is based on five pillars:

1. Political and legal framework to ensure the success of the project on a long-term. As there is already a draft e-waste policy, this part of the project will focus on the review of the existing draft, the development of enforcement mechanisms, and the sharing of policies, regulations and legislation, through the BCRCs, across East Africa, for consideration of developing national e-waste policies.
2. In-depth data collection and inventory of the current situation, and predictions of future flows, to define the business case and the scope of the dismantling and collection facilities needed. This data will be based on existing studies done by the Oeko Institute and PAN Ethiopia. In order to strengthen knowledge-based decision-making, the existing information will be updated and compiled in a comprehensive manner.
3. E-waste Collection System to ensure that sufficient materials are flowing to the dismantling and recycling facility, including e-waste from businesses and private persons. The set-up of the collection system will take into account the existing collection channels and will focus on the integration of the informal sector, especially for the collection of e-waste from private households.
4. Manual dismantling according to environmental and health standards. Through in-depth manual dismantling and detailed separation of fractions, much of the e-waste can be recycled locally or in the region. Further recovery of precious metals from printed circuit boards can be achieved by international smelters.
5. End-processing of fractions from the manual dismantling facility to close the loop. Some components can be treated within local or regional recycling facilities, but others like copper or printed circuit boards must be exported at this stage to international smelters, which are based in Europe, the US or Asia, for appropriate end-processing.

The informal sector will play a major role within the project, especially when designing the collection system, which will be based on incentives for scavengers. The dismantling facility will create jobs for skilled and unskilled workers. This project will be a pilot project for Ethiopia, but will illustrate the opportunities available for the East African region to implement a solution for e-waste, especially in countries with low volumes of waste. The Ethiopia pilot project will cooperate with countries in the region through knowledge sharing, workshops, and awareness-raising initiatives. The project approach can also be adapted for use in other countries with higher volumes of e-waste, but will need to be customized for each situation. The Basel Convention Regional Centers will be key in the dissemination of the policy, the established strategy, the achieved success and the lessons learned to countries in other African regions.

Background

E-waste is globally one of the fastest growing waste streams. For example, people replace and discard mobile-phones on average every 2 years in industrialized countries, and computers every 3-4 years. The lifecycle of electrical and electronic products in developing countries is also substantially decreasing. Every year approximately 45 million tons of e-waste are generated worldwide. E-waste generation is increasingly affecting developing countries. In Ethiopia, e-waste is generated through the disposal of mainly second and third hand equipment, but also increasingly by new products coming into the market. Although e-waste volumes are still on a moderate scale in Ethiopia, current studies are showing that rapid economic growth, together with increasing penetration of e-products, will lead to significantly increased e-waste generation in the near future.

Unlike other traditional solid waste in Ethiopia, the main environmental impact of e-waste arises due to inappropriate processing of the toxic contents that are partly released to the environment during unsound processing and/or disposal. As the application of state-of-the-art technologies is not very common, inappropriate e-waste recycling and refurbishment activities themselves lead to the exposure of individuals to harmful substances and pollution of the environment. Presently the processing and disposal of e-waste in Ethiopia is not under any environmental monitoring and as a result, activities to reclaim materials from e-waste or to dispose e-devices or fractions of such devices create the potential for many kinds of pollutants to be released, potentially causing environmental and health problems. E-waste contains toxic substances such as lead, cadmium, mercury, brominated, flame retardants as well as other persistent organic pollutants. Therefore, when used electronic and electrical equipment is dismantled and treated, it is important to ensure environmentally sound solutions for both the treatment and the final disposal, to protect both the environment and the health of concerned people.

The actions that take place at the end-of-life of EEE (collection, dismantling, material recovery and disposal) are typically carried out informally by individuals in most developing countries. The current activities are based on rudimentary methods to collect the valuable materials. Individuals involved in these activities often lack awareness, technical training and the financial and organizational capacity to carry out environmentally sound recycling methods, causing health and environmental problems. Frequently, some valuable materials are recovered by individuals in the informal sector, who then sell these valuable fractions (e.g. printed circuit boards containing silver, gold, palladium; copper from cables; and coils and aluminum from heat-sinks) to traders or local industries. Non-valuable and toxic parts are often informally dumped or burned. In addition, informal recyclers often make use of open fires to liberate copper from its wire-insulation, a process emitting significant amounts of persistent organic pollutants (POPs) to the atmosphere. These individuals do not offer a fully-fledged, integrated management service but rather concentrate on certain components, and often failing to recover all of the value of the components. A comprehensive electronics management program in Ethiopia would include the collection of all unused EEE, the reuse and refurbishment of still functioning parts, and the dismantling, and recycling of end-of-life electronics.

Past activities

In 2006, the World Bank provided a loan to the Ethiopian government to support the development of the ICT sector. One part of this loan was designed to ensure that the e-waste produced by the growth in the sector would be managed responsibly. Through this effort, a Computer Training and Refurbishment Center (CRTC) was established on the outskirts of Addis Ababa, in Akaki, where donated ICT equipment would be refurbished and deployed to

eligible health, education and community recipients. This facility also contains a fully furnished computer training center. Refurbishment of older computers is an important first step in developing a comprehensive system for managing used electronics.

A demanufacturing facility (DMF) was established along side the CRTC, at the same location in Akaki, in order to handle the donated equipment that is not suitable for reuse and when the deployed equipment reaches its end-of-life. While the CRTC provides hands-on, practical ICT and business school training, the DMF allows for the environmentally sound management of end-of-life electronics. These World Bank-funded e-waste projects were managed by the International Business Leaders Forum (IBLF) on behalf of the Ethiopian ICT Development Agency (EICTDA). The EICTDA has since evolved into the Ministry of Communications Information and Technology (MoCIT), which is a key partner in the current GEF proposal. Since the World Bank project closed in 2010, the CRTC continues to function and the DMF is located in a temporary facility, while the permanent facility is constructed in Spring 2012. The DMF is currently not functioning on a regular basis due to the absence of a collection system that brings e-waste into the facility, as well as a lack of identification of downstream markets where the e-waste fractions can be taken. The Ethiopian government is providing financial and in-kind support for further development of the De-Manufacturing Facility.

The current activities are building upon the past World Bank-supported efforts in order to create a sustainable and replicable e-waste management program. The United Nations University Solving the E-waste Problem (StEP) Initiative, with funding from USEPA and support from other StEP members, became involved in the Ethiopia project and are providing funds and technical support. StEP and its members, ranging from research organizations to computer manufacturers, viewed the work in Ethiopia as an opportunity to build upon the existing World Bank project, and also to get ahead of the problem in Ethiopia, before it became a crisis similar to other African countries.

Baseline activities

Using the World Bank project as a foundation, along with the interest of the StEP community to develop a follow on project, in October, 2011, a group of StEP members met in Addis Ababa with Ethiopian governmental, non-governmental, academic and industry stakeholders. The meetings were targeted at establishing a project for pro-actively addressing e-waste issues in Ethiopia. During the three-day meeting, the participants shared available information on stocks and growth rates of electrical and electronic equipment (EEE) in Ethiopia, available infrastructure for the end of life (EoL) treatment of EEE in the country, as well as a first framework for a future project for management of e-waste in Ethiopia. At the meeting, participants agreed to establish the "Ethiopia E-Waste Management Working Group" (EEWoG) consisting of a the Steering Committee (SC) and the Advisory Group (AG). The Steering Committee is comprised of local stakeholders, for example from the Ethiopian Environmental Protection Authority, Ministry of Communication and Information Technology and other Ethiopian governmental organizations, as well as academics and NGOs. The SC will manage the Ethiopian e-waste management project. The Advisory Group (AG) consists of representatives of international organizations including the StEP members such as United States-Environmental Protection Agency, United Nations University, Dell, Oeko-Institut, the Basel Convention Coordination Center for Africa and the University of Limerick.

EEWoG Tasks (Short Term)

The SC will determine the frequency of in-country meetings and, together with the AG will hold periodic video/teleconferences to keep up communication. This may happen with a subset of each group for logistical purposes.

EEWoG Tasks (Long Term)

- 1) Creating fully functional Demanufacturing Facility (DMF), including:
 - a) Developing/exploring collection schemes to increase volume of e-waste entering DMF, particularly government equipment in storage and reaching end-of-life.
 - b) Identifying downstream markets for fractions within Ethiopia e.g. metal scrap, as well as for export to facilities outside of Ethiopia e.g. circuit boards, plastics.
 - c) Identifying sustainable management options for fractions with no or negative economic value.
 - d) Development of a functioning facility for demanufacturing.
- 2) Updating statistics/baseline, potentially combining Oeko Institute desk study and EPA/PAN-Ethiopia inventory.

- 3) Developing national e-waste strategy tied to the new regulation awaiting passage by Parliament.
- 4) Raising public awareness of e-waste through outreach and education efforts.
- 5) Identifying private sector involvement and incentives.

In preparation for this 1st Open StEP Meeting in Africa, Oeko-Institut performed a desk-study analyzing the e-waste situation in Ethiopia, which is now being merged with the results from the PAN-Ethiopia work. These efforts are supported by StEP with resources provided by US Environmental Protection Agency (USEPA) through a cooperative agreement signed last year. Additional StEP efforts will be used to further support the stakeholder process and initiate certain EEWoG tasks that will assist the Ethiopian government in establishing the necessary framework to sustain the infrastructure

Recently, the Ethiopian government mandated that all used government computers will be required to be sent to the demanufacturing center. This will help ensure that sufficient quantities of materials will be going to the DMF, and will help the government address their stockpiles of old computers, which have been in a warehouse awaiting proper treatment. This mandate also shows the commitment of the Ethiopian government to the facility and the willingness to contribute to the project.

B.2. 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:

As mentioned above, the incremental activities will build off of the World Bank efforts and initial StEP activities and scale-up those efforts. They will provide a model for the region that can be replicated in countries which face a similar situation regarding e-waste volumes. Outreach will be conducted to relevant stakeholders in various regions of Ethiopia, as well as within the East Africa region, other countries within Africa and the international community. By establishing an e-waste management strategy for Ethiopia and making links to e-waste efforts in other neighboring countries, a first step towards a regional solution to tackle the issues of e-waste management in countries can be attained. Included in the strategy will be identifying potential opportunities for downstream markets that allow Ethiopia and its surrounding countries to pool certain fractions from e-waste. This would allow them to manage the materials sustainably, either within the region or by sending them to a developed country where technology exists to treat the fractions in a safe and environmentally sound manner. The GEF grant contribution will make it possible to develop and implement a business model for a collection system to draw e-waste back from the consumers, potentially via financial incentives. This will make it easier to effectively include the informal sector into a formal collection system. The effective collection system will make it possible to start up the operations of the DMF in a sustainable manner and ensure future inputs.

The project seeks to address the issue of e-waste management in Ethiopia by promoting environmental sound methods and state-of-the art technologies. As described above, a small dismantling facility exists already in Akaki, close to Addis Ababa, which is currently not operating due to the low volume of end-of-life equipment. The major focus of the project will be on strengthening and scaling up the facility, as well as implementing an effective collection scheme to get equipment to the facility. The current activities will be analyzed, and options for improvement or further possible activities - like the upgrade of the facility to a regional training center - will be explored. The facility will implement new methods for recycling and dismantling, and will be connected to appropriate downstream markets, either in Ethiopia, in the region, or internationally to guarantee appropriate end-processing. The project will make use of low-tech dismantling methods within Ethiopia that are environmentally sound and protective of human health, and will work to connect the facility to other operators for the recycling of the other fractions. This method will help to ensure the sound management of all materials and the highest possible recovery rate of valuable metals, as well as the secure handling of non-recyclable materials.

The implementation of a collection scheme is key to make sure that end-of-life electronics are getting to the facility,

ensuring sufficient volume and sustainability. An effective and efficient collection system will decrease the current stock of obsolete EEE and lead to continuous input of e-waste to the manual dismantling facility. This collection system will be based on existing structures and involve the informal sector, to the extent possible.

The project will also emphasize a regional approach to e-waste management in East-Africa over the long-term. The Akaki facility in Ethiopia will be scaled up and used to establish a regional training center. The training center will be organized in cooperation with the Basel Convention Coordinating Center (BCCC) for Africa based in Nigeria, and the existing National Cleaner Production Center (NCPC). The Training Center can then host regional workshops and capacity building activities to bring the issue of e-waste management to the attention of all countries in the East Africa region, as a follow-up to the recent (March 2012) Pan-African E-waste Forum, organized by UNEP and the Basel Convention Secretariat.

Further, all of the three African Basel Convention Regional Centers (BCRC), based in Egypt, Senegal and South Africa, will be integrated into the project, with the goal of raising awareness and sharing information. The role of the BCRCs and the BCCC will be to:

1. Contribute to the development of policies that address environmentally sound management of e-waste for the region through reviewing draft legislation, regulations and standards, and disseminating approaches, standards, criteria and lessons learned;
2. Participate in, and provide expertise to, capacity building activities, trainings and workshops, including those that raise awareness about the environmental issues surrounding e-waste and those that focus on the role of the informal sector;
3. Disseminate key approaches from the pilot project in Ethiopia, and seek to replicate these efforts in other countries in the region;
4. Disseminate lessons learned, reports and further information regarding e-waste initiatives in Africa.

Because of the involvement by the BCRCs, the pilot project in Ethiopia will have an impact on other African countries and contribute to a better understanding of e-waste management in Africa, as information and lessons learned will be shared.

The overall aim of the project is to promote and scale up the environmentally sound management of e-waste (and chemicals and hazardous substances in e-waste) in Ethiopia and in the East Africa region. The project will focus on three outcomes and eleven outputs that will help to reach this objective.

Outcomes:

1. National e-waste strategies, including necessary legislative and policy measures on the sound management of e-waste, are established.
2. The existing infrastructure to treat e-waste is reviewed and scaled up in order to operate with higher volumes, to manage the e-waste in an environmentally sound manner, and to be financially and environmentally sustainable.
3. The e-waste management strategy is evaluated and monitored.

Output	Description	Activities
1.1 The project is integrated in the national stakeholder process related to the development of a national e-waste management strategy.	The national stakeholders will be involved in the project to establish the consensus to move forward, review the draft policy and to establish effective legislation and compliance. This will build upon the national stakeholder process initiated by	1.1.1 Develop a draft national e-waste management strategy and publish it for comments by national and international stakeholders. 1.1.2 Organize a workshop to

	<p>the UN- hosted StEP Initiative meeting in October 2011 and the establishment of the EEWoG. The program will move forward the policy and legislative initiatives of the Ethiopian government, which are essential for the success of the program.</p> <p>Cooperation between the Ethiopian EPA and the Ethiopian MCIT contributes to the integration of national stakeholders into the process. In addition, the stakeholders are working together to develop a national e-waste management strategy, which will provide a comprehensive guide for future programs.</p>	<p>raise awareness among the relevant stakeholder groups.</p> <p>1.1.3 Develop a plan for capacity building of local/government/ informal sector/ others involved in key areas of the recycling process, including collection, refurbishment, de-manufacturing and transfer to downstream markets (national/regional/international).</p>
1.2 Legal and policy frameworks are established.	<p>The Ethiopian government has begun to put in place legal and policy frameworks for the safe management of e-waste, which is a key component of the current StEP and USEPA program. These frameworks are important pieces of the overall picture, and a key to ensure the programs continue into the future. The GEF program in Ethiopia will work to continue the development and establishment of these frameworks, and also work to share these across the East Africa region, and to harmonize laws and policies across the region. Such harmonization helps to decrease illegal shipments of waste across the region.</p>	<p>1.2.1 Organize a workshop to draft legislations and policies on sound management of e-waste.</p> <p>1.2.2 Submit the drafted legislations for consideration by the parliamentary processes in Ethiopia.</p> <p>1.2.3 The East African Network on Environmental Compliance and Enforcement (EANECE) will meet to develop a harmonized approach for the East Africa region on the development of laws and regulations related to e-waste.</p>
1.3 The existing studies are verified and a database projecting e-waste flows in the future is established.	<p>A detailed inventory of the e-waste flows and volumes will be conducted, building on the existing studies done by the Oeko Institute and Ethiopia-PAN and include mass flows of the past and predictions for the future in Ethiopia and key countries in the region. The updated and in-depth data will also include a mapping of the current activities and initiatives in the respective countries, and a review and identification of the existing Ethiopian facilities suitable as downstream partners. The current recycling methods will be reviewed and the best available options for the treatment of recyclable and non-recyclable fractions will be identified. Further options for regional cooperation will be identified at this stage.</p>	<p>1.3.1 Display the mass flow of EEE in the assessment.</p> <p>1.3.2 Verification of estimated current and future quantities of e-waste in Ethiopia.</p> <p>1.3.3 Describe current and future activities regarding e-waste collection and treatment.</p> <p>1.3.4 Identify and analyze initiatives in the region for cooperation to implement a regional solution on a long-term.</p> <p>1.3.5 Identify local/ regional/ international option for all output fractions.</p>
1.4 Dissemination of the established e-waste management strategy via the BCRCs to other African	<p>The project in Ethiopia will be a pilot project and should be replicated in other developing countries which face a similar issue regarding e-waste. As e-waste is an</p>	<p>1.4.1 Share the e-waste management strategy with the BCRCs and other interested stakeholders in the region to get</p>

countries.	upcoming issue in most African countries, this project should give them the opportunity to learn and profit from the outcomes. It is important that the East African countries are aware of the current initiatives and projects in Ethiopia and agree upon a regional strategy, as it will help towards building a long-term regional approach to e-waste management.	inputs and comments. 1.4.2 Integrate the comments of the BCRCs and other interested stakeholders in the region into the document. 1.4.3. Organize workshops to disseminate the e-waste management strategy among all interested African countries, with focus on East Africa, and interested stakeholders worldwide.
2.1 An effective e-waste collection scheme is designed and implemented.	One major aspect needed for the sustainability and cost-effective functioning of the de-manufacturing facility is the sufficient input of end-of-life equipment. To ensure this input, the project will design and develop a collection system for used electronics. As part of the project, current practices will be analyzed, with the goal of learning from the experiences of other countries in the region and internationally. Based on the ongoing activities to collect e-waste, the collection scheme will involve the informal sector. The collection system will be tested in Ethiopia and could then be adapted and replicated in other countries.	2.1.1 Analyze the currently practiced formal and informal collection systems. 2.1.2 Analyze collection systems in selected countries facing similar collection practices. 2.1.3 Design a tailor made e-waste collection scheme for the 4 main cities in Ethiopia and the rural areas. 2.1.4 Test the designed collection scheme in one Ethiopian city.
2.2 A business model for the dismantling facility is developed.	A sustainable business model for handling e-waste in Ethiopia will be developed, taking into account developments and initiatives in the region. The business model will include a cost-benefit analysis for the Akaki de-manufacturing facility, and options to improve its operations with respect to collection, dismantling and pre-processing of materials for further recycling or disposal. Options for end-processing of hazardous and non-hazardous fractions will be identified and tested, including pooling materials with countries in the region to create a cost-effective method for shipping to smelters or other facilities in Europe, North America or Asia - facilities that are not available in Africa at this time. Based on the economic feasibility, the need and possibilities to import additional e-waste from the region will be identified. Focus will be on cooperation with neighbouring countries to treat e-waste in the most cost-	2.2.1 Assess the recycling activities of the existing Akaki De-manufacturing facility. 2.2.2 Identify options for improving pre-processing and final disposal activities for the Akaki facility on local, regional and international scale. 2.2.3 Analyze the costs and benefits of improving the Akaki facility. 2.2.4 Test the various options for downstream markets. 2.2.5 Implement the business model to ensure the scale-up of the ongoing operation of the refurbishment and de-manufacturing facility.

	effective way.	
2.3 The operations of Akaki facility are improved and adjusted, so the facility can serve as a regional training center and a model in East Africa.	The World Bank has invested in the existing de-manufacturing facility in Akaki, and the Ethiopian government will also be putting funding into its further development. This project will provide additional funds and technical assistance to ensure that the operations of the facility are up to date and running in an environmentally sound manner, including training for staff and managers. Once the Akaki facility is developed further, it can serve as a regional training centre, to provide training and examples for the East Africa region on e-waste management. Workshops, trainings and technical assistance could be provided through the de-manufacturing facility and the refurbishment facility. Regional trainings will promote harmonization on legislation, policies and programs, along with regional coordination on end-processing materials through East African countries. The goal would be to build a cadre of trained and knowledgeable experts in the region who could provide trainings, information, and technical assistance needed as these activities get scaled up in the various countries. Included in this training would be experts from the Basel Regional Centres, who have already-developed training materials and information.	<p>2.3.1 Assess the current training activities of the Akaki facility.</p> <p>2.3.2 Identify the required activities to up-scale the facility to a regional hub for trainings on e-waste management.</p> <p>2.3.3 Establish training program for formal and informal recyclers and collectors.</p> <p>2.3.4 First trainings on a regional level are conducted.</p>
2.4 General awareness about e-waste is raised and the established collection scheme is promoted.	To promote the newly established centre and the collection activities to the public, the project will develop and implement public awareness raising campaigns. These campaigns will target: (1) the general public to bring the collection channels to their attention; (2) the informal collection and recycling sector to show them the risks of their operation; the private sector, both national, regional and international, including the original equipment manufacturers (OEMs), so that they know the situation and comply with the policies; and (3) policy-makers in Ethiopia and other countries in the region to show the need for these issues to be on the policy and legislative agenda.	<p>2.4.1 Establish an awareness raising strategy.</p> <p>2.4.2 Design and implement an awareness raising campaign for different target groups.</p> <p>2.4.3 Organize awareness raising events.</p>
2.5 Cooperation with international smelters are	Components and fractions from e-waste shall be treated in Ethiopia as far as possible to avoid environmental burdens	2.5.1 Identify adequate international smelters.

established.	from the transport of materials, and to ensure that the economic benefits and job and income creation remain in Ethiopia. For environmental and health reasons, fractions that cannot yet be treated in Ethiopia will be treated in the region in collaboration with the neighboring countries. Some fractions, such as certain printed wiring boards, can only be treated effectively and environmentally sound in high-tech smelters. There are only a few of these smelters available worldwide (e.g. Aurubis in Germany, Umicore in Belgium, Boliden in Sweden, Dowa in Japan). The regional approach therefore will be complemented by international cooperation to arrive at an environmentally and economically sound e-waste management system.	2.5.2 Identify possibilities for co-operations. 2.5.3 Establish possibilities to transfer fractions to international smelters. 2.5.4 Transfer first load of fractions to international smelter.
3.1 The project is monitored on a regular basis.	Monitoring and evaluation of the project will be integrated throughout the project, and reported on, including reports to the EEWoG Steering Committee and others in the region.	3.1.1 Prepare bi-annual progress reports
3.2 The project is evaluated by an external evaluator.	An evaluation report, including lessons learned, will be put together at the end of the project by an external evaluator.	3.1.2 Prepare a final evaluation report (including lessons learned).

During all stages the project aims to include the existing informal sector, especially while designing and implementing the collection system. Currently the informal sector collects and treats the obsolete EEE. To build upon existing capacity, and to include the informal sector effectively into the formalized collection and dismantling operations, workshops, trainings and capacity building activities will take place.

The business model and the collection system that are established in Ethiopia should help other developing countries that face a similar situation regarding e-waste management. Countries in the region will profit from the facility in Ethiopia and from the lessons learned during the implementation of the project.

Particular emphasis on linkages to neighboring countries will allow the development of regional solutions for the entire East Africa region over the long-term. Through the existing East Africa Network for Environmental Compliance and Enforcement (EANECE), the region can share and harmonize legislation, regulations, policies and enforcement strategies. Where there are existing recycling and demanufacturing facilities in the region, the project will make every effort to incorporate them into the regional approach.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

Improper management of e-waste disproportionately affects poor communities situated in the vicinity of dumps that receive the materials. Often it is the women and children who use rudimentary processes, like open-burning, to retrieve copper and other precious metals to support their families and are exposed to toxic materials. Fortunately, Ethiopia's e-waste problem is not as severe as those in other African countries. However, a proactive approach to addressing e-waste in Ethiopia will help prevent future impacts on women and children, as well as the communities overall.

The ultimate beneficiaries of the project include (1) the national government of Ethiopia and neighboring countries that have committed to address e-waste in an environmentally sound manner; (2) the private sector involved in local e-waste treatment in Ethiopia and the region, will benefit from aligning with an overall e-waste strategy for Ethiopia; and (3) communities that would otherwise suffer from the effects of poor e-waste treatment.

The project will contribute to the government's obligation to promote the expansion of the telecommunication sector, while also protecting human health and the environment. The awareness-raising campaign will work to inform poor communities in Ethiopia about proper e-waste management and collection opportunities -- communities that do not often receive such information, with the goal of reducing exposures to harmful hazardous materials. Local entrepreneurs and SMEs will be supported in upgrading their operations to adopt viable business models and implement best practices for environmentally sound management of e-waste.

Local and national institutions of Ethiopia will gain know-how and benefit from capacity building, and may be considered as secondary targets. These include various ministries, departments and agencies as well as industrial associations, universities, research institutions, non-governmental organizations, and consultants. As a result, the Government will be able to prepare relevant e-waste regulations for Ethiopia, while research institutions and consultants will be able to provide high quality services to local stakeholders.

Local communities and the informal sector involved in the e-waste treatment sector in Ethiopia will equally benefit from reduced health risks, access to new services and products, and the possibility to link-up to new waste treatment and recycling industry supply-chains. Protection of the environment due to safe management of e-waste will prevent toxic substances from impacting the health of communities, especially the most vulnerable populations such as children. Another benefit for the local communities will be the opportunity for employment in the dismantling facility or at the level of collection - one of the major aims of the project is to integrate the informal sector into the facility and collection system.

In addition, the entire East-Africa region will benefit from the project as the project will work to establish a regional approach to the issue. The regional training center will work to share experiences, approaches and lessons learned throughout the region, and build the technical capacity, not just in Ethiopia but around the region. The collection system, as well as the business model for the dismantling facility, could be replicable in other African countries which face a similar situation. These countries can learn from the experiences, challenges and opportunities faced during the implementation of the project.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

A major factor for the success of the project is the commitment of the Government of Ethiopia to adopt the e-waste policy and promulgate necessary regulations to ensure the enforcement of the same. The entire project will rely on the policy framework and regulations, which are currently drafted and in the Parliament. This legislation restricts certain recycling activities like open-burning or landfilling. Such a framework would support the scale-up of the existing manual dismantling facility. To ensure that the end-of-life equipment actually gets to the facility, an effective collection system is an important step. If a sufficient quantity of e-waste cannot be collected in the long

term, the facility will not have adequate input to be self sustaining; the stock will grow, while the informal sector will also grow -- without proper e-waste management. Another factor that will influence the success of the project in the long term is the movement of the market prices for precious metals. Here the current projections are quite positive, as gold is the main value carrier for e-waste. These markets generally develop independently from global economic development and can be seen as a stabilizing factor during economic troubles. As long as the prices are comparatively high there are chances that the facility would be self sustainable. Additional mechanisms and the involvement of the Government of Ethiopia, have to be considered in the business model to ensure the sustainability of the facility.

The informal sector, which uses crude recycling methods, can be a risk, if it is not integrated well into the e-waste management strategy. Financial incentives for formal collection and/ or recycling will be needed to minimize the risk that the informal sector will continue to use rudimentary methods to recycle e-waste in a cheaper way.

Risk Level	Risk	Countermeasures
Low	Policy and legal framework won't be approved by the Parliament.	Stakeholder meetings and awareness raising initiatives on policy level to point out the need to approve the policy.
	Development of the prices of precious metals on the international market.	The business case will be designed taking into account a fluctuation of the prices.
	Through the transport of the e-waste to different locations CO2 emissions will raise.	Design the collection and transport system in a way to minimize CO2 emissions.
Medium	Insufficient input into the facility to keep the operations running.	Agreements with Governments and other institutions with high usage of EEE will be established to ensure ongoing input.
	Development of collection and recycling activities within the informal sector.	Relatively high incentives for the informal sector will be calculated.
High		

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

Government: Ethiopia Environment Protection Authority; Ministry of Communication and Information Technology (including the Akaki computer De-manufacturing Facility); Ministry of Civil Service; Ministry of Transport; Ministry of Health; Ministry of Trade; Ministry of Industry; Regional Environmental protection organs; Customs Authority

The Ethiopian government entities will play the major role in the project, including the development and enforcement of the collection scheme and the scale up of the dismantling facilities, with the EEPA and MoCIT as the key players in the program. Other government agencies and Ministries will play a role in awareness-raising, training, and inspection and enforcement.

Other governments in the region will also play a role, particularly in establishing a regional approach for East Africa. The BCRC will support the countries' in sharing their experiences about recycling, collection and establishment of legislation on e-waste. The governments will need to work together to ensure that they can share resources and experiences.

Private sector: EEE Importers/ maintenance shops; EEE manufacturing, refurbishment and recycling industries; waste management industries; waste collectors; international equipment manufacturers, such as Dell and Nokia; Informal and formal waste collectors; US recycling companies; international processing facilities and smelters.

The private sector will be involved in helping to develop and manage the collection facilities and the dismantling facilities. The project will work with the international OEMs to ensure that they are aware of the program. The project will also work with UMICORE, a StEP member, and other processing facilities to ensure that the segment of the e-waste that cannot be processed in Ethiopia, or even Africa, can be shipped to a responsible facility. The program will also access the expertise of the international recycling industry, including key recyclers from the U.S, who have already been engaged in the Ethiopia project with the World Bank and USEPA.

Informal sector: The informal sector is a major stakeholder group in the collection, the refurbishment and the dismantling of obsolete EEE, and have a lack of awareness of the potential hazards of improper treatment of e-waste. To overcome this problem and to educate the informal sector in the proper techniques, workshops, capacity building and training activities will be conducted to integrate the informal sector into the project. The informal sector will also play an important role for the design of the collection system. At present, it appears that the informal sector are the main players active in collecting e-waste. The e-waste collection system for the project will build upon the existing structures and provide incentives for the informal sector to be part of a formalised collection system.

Civil society: Enda Ethiopia; Institute for Sustainable Development; PAN-Ethiopia, a NGO working on waste management; Ethiopian Chamber of Commerce; Trade associations; Bilateral and multilateral international bodies (UNU, Solving the e-waste Problem Initiative, UNIDO, Basel Regional Centers); regional networks, including the East Africa Network for Environmental Compliance and Enforcement (EANECE).

Civil society is engaged in assessing the e-waste problem in Ethiopia and in helping to develop awareness-raising materials and in training. International organizations are engaged in providing direct support to the project, and also lending their expertise and experience on e-waste issues. The BCRCs are a key to work on e-waste in a regional approach and to share the experiences and lessons learned throughout Africa.

B.6. Explain how cost-effectiveness is reflected in the project design:

Outcome 2.2 and 3.2 will focus on the economical viability of the facility/ training center. A cost-benefit analysis will be conducted during this stage. Working with the dismantling facility and the international smelters will increase the recovery rate for precious metals, resulting in higher revenue for the facility. A detailed business model with predictions for the next 3-5 years will be established and will establish more clearly the cost-effectiveness of the facility. In addition, the facility and the collection system will create jobs for both the informal sector and the more technically skilled.

B.7. Outline the coordination with other related initiatives:

Several organizations which have expertise in e-waste management will contribute to the success of the project. The United States Environmental Protection Agency (EPA), in partnership with the United Nations University hosted StEP Initiative (StEP), is currently working with the EEWoG to initiate efforts to address e-waste, which will serve as a foundation for the GEF activities. StEP and EPA efforts have drawn the attention of a number of international private and public sector entities who will also be involved. These organizations are well aware of ongoing initiatives related to e-waste on a global scale. At the same time the supporting government of Ethiopia will coordinate the project with other initiatives responding to the Plan for Accelerated and Sustainable Development to End Poverty in Ethiopia. These two factors will make it possible to coordinate the project activities with other related initiatives in Ethiopia and internationally.

The Basel Convention E-waste Africa Program, was completed in 2011, but the results and the lessons learned from this project will be considered and utilized, particularly to share lessons learned across East Africa and in the rest of Africa. The Basel Convention Coordinating Center (BCCC) played a major role in the assessments conducted under the Basel Convention E-Waste Africa Program, and will be instrumental in ensuring any transboundary efforts in East Africa. The new initiatives are in accordance with the Basel Convention and the Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa. The appropriate recycling technologies will be implemented in a manner that prevents negative environmental and health impacts.

The development in East Africa of harmonized laws and regulations on e-waste, and cooperation in the region on enforcement and compliance with those laws are critical components to successfully address the e-waste problem. The East African Network on Environmental Compliance and Enforcement (EANECE) stands as the appropriate platform to work on these issues. EANECE, launched in May 2010, is a network of enforcement and compliance officials from Kenya, Tanzania, Uganda, Rwanda and Burundi (Ethiopia and Zanzibar are in the process of seeking membership). The Network brings together its members to build capacity on priority enforcement and compliance issues in the region, harmonize regulations and develop relationships among the member countries to increase cooperation on transboundary issues. E-waste is an area in which EANECE can bring its membership and expertise to bear to address these critical governance issues.

UNIDO is a member of UNEPs Global Partnership on Waste Management (GPWM) and is the lead of the focal area on e-waste management. Through this partnership, UNIDO has a good overview of international projects and initiatives regarding e-waste, and will share the information and lessons learned with the Ethiopia project.

UNIDO is currently implementing another GEF project entitled: "Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs)" that will help to implement the National Implementation Plan (NIP) in Ethiopia. This project will have linkages with the e-waste project, as e-waste contains some of the new POPs.

C. GEF AGENCY INFORMATION:

C.1 Confirm the co-financing amount the GEF agency brings to the project:

UNIDO will bring a small amount of grant co-financing to the project to finance staff travel to the project sites. UNIDO is also active in other activities and projects in the East African region, participates in international conferences regarding e-waste, and also an active member in the StEP Initiative, and the GPWM.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The UNIDO ICT Program was established to build and strengthen local capacity through the use of ICT applications. It aims to make the productive use of ICT by small and medium enterprises in the developing world a reality. As the program intends to support developing countries by managing the whole life cycle of EEE, one of the core issues of the ICT programme includes the treatment of E-waste.

UNIDO currently has an ongoing project in Uganda to establish a manual e-waste dismantling facility. Through this project, UNIDO will gain more in-depth knowledge on the development of e-waste management strategies and further the regional approach. UNIDO is also implementing related projects in Tanzania and Cambodia. UNIDO is, in addition, the lead organization of the focal area "E-Waste Management" within the Global Partnership on Waste Management (GPWM), which will help the organization keep up-to-date on new developments in the region regarding E-waste management and help to enforce regional cooperations.

Through UNIDO's network of National Cleaner Production Centers, it will be possible to follow up on the project after the implementation on a regional level. The Ethiopian NCPC, together with the local ministries, will have the capacity to provide oversight for the establishment of the facility and the developed activities in Ethiopia.

Further cooperation with the Technology Needs Assessment Project, implemented by UNEP, will be established to ensure synergies in the strategy of overlapping topics.

Legal context

The Government of the Federal Democratic Republic of Ethiopia agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 26 February 1981 and entered into force on 5 November 1984.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

UNIDO is the GEF Agency implementing the project. Under the coordination of UNIDO, StEP will lead the international advisory process; MoCIT and EEPA will lead the execution of the project and coordinate national institutions. UNIDO will be in frequent contact with all partners to ensure that all are informed about the progress.

B. PROJECT IMPLEMENTATION ARRANGEMENT:

UNIDO will lead on the international level and will coordinate with ongoing projects in the region and related projects worldwide. StEP brings international expertise to the project, and will coordinate the international stakeholders work, especially with regards to the input of the International Advisory Group into the project. The international and local partners will support the national counterparts throughout the whole project implementation, providing support, advice, and expertise. Further they will provide substantive input to the design of the collection scheme and the upgrading of the Akaki Dismantling Facility. In addition, partners will disseminate the lessons learned and the outcomes to the international community. The national counterparts. EEPA and MoCIT, will be responsible on the national level to coordinate the ongoing activities. The Steering Committee from the EEWoG will lead the process. All EEWoG members will participate actively in the stakeholder process to establish effective regulations and to disseminate the outcomes.

Frequent teleconferences and regular field visits will support the communication between national and international partners.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF


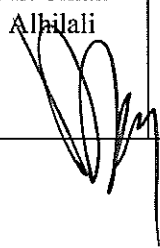
PART V: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr. Tewolde Berhan Gebre Egziabher	Director General	ENVIRONMENTAL PROTECTION AGENCY	18/01/2012

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 (Month, day, year)	Project Contact Person	Telephone	Email Address
Mr. Dmitri Piskounov, Managing Director UNIDO GEF Focal Point		July 12, 2012	Mr. Smail Alhilali 	+43-1-26026 3363	s.alhilali@unido.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Objective	Indicator	Means of verification	Assumptions
Promote and scale up the management of e-waste activities in Ethiopia	<ul style="list-style-type: none"> Improved situation regarding e-waste in Ethiopia Akaki De-manufacturing facility is operating on a sustainable manner General awareness about the consequences of improper treatment of e-waste is raised 		
Outcomes	Indicator	Means of verification	Assumptions
1. A national e-waste strategy including necessary legislative and policy measures on the sound management of e-waste is established.	<ul style="list-style-type: none"> Legislations and regulations signed E-waste management strategy developed Co-operations with neighboring countries are explored 	<ul style="list-style-type: none"> Policy report Strategy paper on e-waste management 	
2. The existing infrastructure to treat e-waste is reviewed and up-scaled in order to operate higher volumes, according to environmental and health standards and to be sustainable.	<ul style="list-style-type: none"> Amount of e-waste collected per generated e-waste treated per e-waste collected # Jobs created E-waste treated per employee 	Reports	
3. The e-waste management strategy is evaluated and monitored.	<ul style="list-style-type: none"> agreements with international smelters evaluation strategy implemented finalized report by external evaluator 	Reports	
Outputs	Indicator	Means of verification	Assumptions
1.1 The project is integrated in the national stakeholder process related to the development of a national e-waste strategy.	<ul style="list-style-type: none"> Draft of national e-waste management strategy is presented and signed by the stakeholders # of participants at Workshops options for end-processing for all output fractions are established 	<ul style="list-style-type: none"> Legislation Minutes of workshop 	
1.2 Legal and policy frameworks are established.	<ul style="list-style-type: none"> Legislation is submitted to the approval process in Ethiopia Regulations prepared Policy is approved by the Parliament 	<ul style="list-style-type: none"> Agenda of relevant meetings 	
1.3 The existing studies are verified and a database projecting e-waste flows in the future is established.	<ul style="list-style-type: none"> Current quantities of e-waste in Ethiopia Prediction for e-waste generation In-depth data on the current situation regarding e-waste collection, treatment options, reuse activities, refurbishment operations Data-base on import and export of EEE 	<ul style="list-style-type: none"> Report/ Statistics 	
1.4 Dissemination of the established e-waste management strategy via the BCRCs to other countries in the region.	<ul style="list-style-type: none"> BCRCs are involved in the e-waste management in different countries Countries start their work on the establishment of e-waste policies/ strategies 	<ul style="list-style-type: none"> Inputs/ Comments on the strategy Draft strategies form other African countries. 	

		<ul style="list-style-type: none"> • # of meetings/ conference calls with representatives from the respective countries held by the BCRCs regarding e-waste 		
2.1 An effective e-waste collection scheme is designed and implemented.		<ul style="list-style-type: none"> • E-waste volume collection rate • # of jobs created • E-waste collected vs. e-waste generated • Unused equipment in stock • Disposal policies of governments, banks and large private companies • possible amount of e-waste treated • # of employees/ jobs created • Expected overall costs/ income • Break-even point • Recommendations for up-grading the operations 	<ul style="list-style-type: none"> • Statistics of collection rate • Contracts signed 	
2.2 A business model for the dismantling facility is designed.		<ul style="list-style-type: none"> • possible amount of e-waste treated vs. actual amount of e-waste treated • # of recommended changes/ improvements implemented • Training materials established • Amount of e-waste treated/ day/ employee • # of trainings conducted • # of non-Ethiopians participating in the trainings 	<ul style="list-style-type: none"> • Cost/Benefit Analyzes • Analyzes report 	
2.3 The operations of Akaki facility are improved and adjusted, so the facility can serve as a regional training center and model in East-Africa.		<ul style="list-style-type: none"> • # of awareness raising activities • # of awareness raising events • # of participants at activities and events • # of people make use of collection channels • % of decrease of improper treatment of e-waste 	<ul style="list-style-type: none"> • Training reports • Monitoring Reports 	
2.4 General awareness about e-waste is raised and the established collection scheme is promoted.		<ul style="list-style-type: none"> • # of awareness raising activities • # of awareness raising events • # of participants at activities and events • # of people make use of collection channels • % of decrease of improper treatment of e-waste 	<ul style="list-style-type: none"> • Reports • Survey 	
2.5 Co-operations with international smelters are established.		<ul style="list-style-type: none"> • # Agreements signed • First fractions are shipped from Ethiopia to the international smelter 	<ul style="list-style-type: none"> • Reports 	
3.1 The project is monitored on a regular basis.		<ul style="list-style-type: none"> • Progress made • Dates of progress reports 	<ul style="list-style-type: none"> • Progress reports 	
3.2 The project is evaluated by an external evaluator.		<ul style="list-style-type: none"> • Lessons learned • Recommendations for a follow up 	<ul style="list-style-type: none"> • Final Evaluation report 	

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).

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF/NPIF RESOURCES

<i>Position Titles</i>	<i>\$/ Person Week*</i>	<i>Estimated Person Weeks**</i>	<i>Tasks To Be Performed</i>
For Project Management			
Local			
Junior National Expert	500	17.5	Assist the CTA by coordinating local stakeholder
International			
Junior International Expert	750	35	The junior international expert should: - In coordination with the counterparts, assist in the implementation of activities - Coordinate the activities of the different suppliers - Liaise with international institutions to support the project implementation and the regional co-operations - Support Project Manager
External evaluator	2,500	4	The evaluator should: - carry out the terminal evaluation of the project by visiting project sites and interviewing those who are involved in the administration and technical aspects of the project; and - prepare a terminal evaluation report.
Justification for travel, if any:			
For Technical Assistance			
Local			
Chief Technical Advisor	1,100	90	The CTA should: - be responsible for project initiation and final planning, in close consultation with UNIDO; - coordinate the preparation of the project work plan or directly participate in its development if needed; - provide a secretariat function for the Project Steering Committee; - report to UNIDO on the project - participate in day-to-day activities related to project implementation; - be responsible for daily communication with project partners, initiate and coordinate the organization of all

			workshops and meetings and assigned project work (such as organizing workshops/meetings/training, preparation of background documents); - work in close consultation with all relevant stakeholders and should ensure that they are involved in project implementation; - provide notification of and briefing about the project for government ministries, government commissions, major private sector associations and other NGOs that may be relevant to the project; - participate in project team and Steering Committee meetings, prepare the minutes of the meetings, and maintain the day-to-day records of project implementation.
National specialist in e-waste management	750	60	The national specialist in e-waste should: - assist international e-waste specialist in conducting the inventory - assist the CTA by the implementation of the activities - design a collection system - review and evaluate the ongoing operations of the Akaki DMF - give support to establish the business case for Ethiopia - coordinate with the identified downstream partners
Local expert on legal and political issues	750	72	The expert should lead the process of developing the legal framework for the project in close cooperation with the international expert on e-waste policy development
International			
International expert in conducting e-waste inventories	2,500	26	Conduct an inventory including: -An economic feasibility study -Quantity of e-waste in stock/ expected over the next years -Quality of e-waste -Type of e-waste -Recycling options for residuals after manual dismantling -Current collection methods
International expert to develop a business model	2,500	52	- Develop a sustainable business case for a up-scaling the current activities including predictions of revenues in the future - Develop the business model for East Africa
Expert in e-waste management	2,500	52	The Expert should: - in close co-operation with national and

			international stakeholder establish a strategy for e-waste management in Ethiopia - Establish a strategy for a regional approach in cooperation with the BCRCs - Review current activities of the Akaki facility - Establish solutions for end-processing - Coordination with international smelters
International Expert on e-waste policy and policy development	2,500	26	The Expert should: - Review the policy developments on e-waste in Ethiopia - Support the development of a policy framework - Lead the workshop to develop the policy framework - Establish a legal framework for the e-waste management strategy within Ethiopia
Justification for travel, if any:			

* Provide dollar rate per person week. ** Total person weeks needed to carry out the tasks.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>				<i>Cofinancing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
	(Select)					
Total		0	0	0	0	0

* Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.

ANNEX E: 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)

