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United Nations Development Programme

Project Document

Project title: PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1		
Country: Ethiopia	**Implementing Partner:** Environment, Forests and Climate Change Commission	**Management Arrangements:** National Implementation Modality (NIM)
UNDAF/Country Programme Outcome: Outcome 4: By 2020, the Government of Ethiopia (GoE) uses a social protection systems approach which ensures increased access to a comprehensive package of social protection programmes, interventions and services to poor, vulnerable and citizens coping with social and economic risks, vulnerabilities and deprivations. Outcome 5: By 2020 key Government institutions at federal and regional levels including cities are better able to plan, implement and monitor priority climate change mitigation and adaptation actions and sustainable resource management. Outcome 6: By 2020, the Ethiopian population in particular Women, Newborn, Children, Adolescent and Youth including vulnerable groups have improved access to and utilization of quality and equitable health services. Outcome 12: By 2020, key Government institutions and other stakeholders utilize enhanced capacities to ensure equitable, efficient, accountable, participatory and gender-responsive development		
UNDP Strategic Plan Output: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.		
UNDP Social and Environmental Screening Category: Moderate risk	**UNDP Gender Marker:** 2	
Atlas Project ID/Award ID number: 00103765	**Atlas Output ID/Project ID number:** 00105643	
UNDP-GEF PIMS ID number: 5861	**GEF ID number:** 9669	
Planned start date: January 2019	**Planned end date:** December 2022	

LPAC date: *TBD*
Brief project description: The project intends to support Ethiopia with the necessary technical and financial assistance to reduce the risks posed by PCBs to the environment and human health. As the present inventory from the National Implementation Plan (NIP) is not sufficiently detailed to plan a full-size project, the project is designed to either confirm the lower bracket in terms of amount of PCBs in the country, and fully address the PCB issue in Ethiopia as part of this Phase 1 project; or identify additional PCBs thus justifying a phase 2 follow-up PCB project. The present project will include the identification and disposal of 150 t of PCB-contaminated equipment and waste.
The project will be implemented in partnership with the relevant institutional and industrial stakeholders, i.e. the Environment, Forests and Climate Change Commission (EFCCC), Ethiopian Electric Power (EEP), Ethiopian Electric Utility (EEU), Metals and Engineering Corporation (METEC), and other holders of PCB-containing equipment. The project will ensure that an adequate level of sustained capacity for the sound management of PCBs would have been built for the management of any further such hazardous waste identified after the project's closure. The project will consist of the following four components which are: 1. Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia 2. Strengthening national capacity for PCB management throughout the lifecycle 3. ESM of PCBs liquids and equipment in use or out of service 4. Monitoring, evaluation, and replication

FINANCING PLAN	
GEF Trust Fund	USD 1,990,000
UNDP TRAC resources	USD 150,000
Cash co-financing to be administered by UNDP	USD 0
(1) Total Budget administered by UNDP	**USD 2,140,000**
PARALLEL CO-FINANCING (*all other co-financing that is not cash co-financing administered by UNDP*)	
Government	USD 1,400,000
Beneficiaries	USD 6,700,000
Other	USD 100,000
(2) Total co-financing	**USD 8,200,000**
(3) Grand-Total Project Financing (1)+(2)	**USD 10,340,000**

SIGNATURES		
Signature: print name below	**Agreed by**	**Date/Month/Year:**
ADMASU NEBEBE State Minister	**MoF** The Federal Democratic Republic of Ethiopia Ministry of Finance	27/04/2019

Signature: print name below Frenesh Mekuria Deputy Commissioner	**Agreed by** **EFCCC**	**Date/Month/Year:** 30/04/2019
Signature: print name below	**Agreed by** **UNDP**	**Date/Month/Year:** 01/05/2019

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List of Acronyms and Abbreviations

CO	Country Office
CPAP	Country Programme Action Plan
ECAE	Ethiopian Conformity Assessment Enterprise
EEFRI	Ethiopian Environment and Forest Research Institute
EEP	Ethiopian Electric Power
EEU	Ethiopian Electric Utility
FSP	Full Sized Project
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
METEC	Metals and Engineering Corporation
METEC-EPEI/PFCCSSPF	Metals and Engineering Corporation-Ethiopia Power Engineering Industry/Power Factor Corrector and Compact Sub-station Production Factory
MoEFCC	Ministry of Environment, Forests and Climate Change
MSP	Medium Sized Project
PAC	Project Appraisal Committee
PIF	Project Identification Form
PIR	GEF Project Implementation Report
PMC	Project Management Cost
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
GEF-STAP	GEF Scientific Technical Advisory Panel
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit

UNITED NATIONS DEVELOPMENT PROGRAMME
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II. DEVELOPMENT CHALLENGE

The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

It is well known that the exposure to Persistent Organic Pollutants (POPs) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems. The Stockholm Convention on POPs has been established based on the consideration that, given the long-range transportation of POPs, no one government acting alone can protect its citizens or its environment from POPs.

PCBs are among the most toxic and persistent POPs listed in the Stockholm Convention. The so-called dioxin-like PCBs are characterized by a toxicity and environmental persistence, which is very similar to that of dioxins. Based on the re-assessment of scientific evidence, PCBs have recently been re-classified as class 1 carcinogens from the International Agency for Research of Cancer (IARC-WHO). Although PCBs were mostly used in closed systems, like transformers and capacitors, very often such equipment is recycled at the end of their operational life and the PCB oil contained therein can be either directly wasted in the environment, recycled, or even sold as fuel oil.

Aware of the adverse human health and environmental impacts of POPs, both at the national and global levels, and the need for concerted action to address such impacts, Ethiopia signed the Stockholm Convention on 17 May 1997 and ratified the instrument on 2 July 2002. Subsequent to the ratification of the Stockholm Convention, Ethiopia, in response to Article 7 of the Convention, developed its NIP, which was submitted in March 2007. The PCB management issue is one of the top priorities for the country according to the NIP, and corresponds to the Stockholm Convention target of safe management of PCBs by 2025.

The result of the preliminary PCB inventory in Ethiopia indicates that a comprehensive inventory will need to be conducted on all potentially PCB-containing electrical equipment in the Ethiopian electric power and electric utility system (formerly EEPCO, and in 2013 split, as part of electricity sector reform, into Ethiopian Electric Power (EEP) and Ethiopian Electric Utility (EEU)). Due to absence of data either on the nameplate or equipment manual, PCB concentrations have not been determined or characterized. Therefore, the lack of adequate national data on PCBs, the potential for significant PCB releases from their use, stockpiles and wastes, and the need to phase out and dispose of PCBs and equipment are major problems that have been prioritized for action.

The following are the barriers that need to be addressed to ensure the environmentally sound management (ESM) of PCBs and avoid PCBs being released into the environment as a consequence of improper disposal:

- **Status of the legislation and implementation of regulation on POPs in particular PCBs**: The preliminary assessment of the legal and institutional frameworks to manage POPs chemicals in Ethiopia have identified several gaps and limitations. Although some aspects of POPs such as pesticides issues are addressed in various legislations, there is no legislation that specifically addresses PCB management. Since the preliminary inventory in Ethiopia shows a presence of significant amounts of PCBs, there is a need to develop or incorporate PCB management specific issues either into new or existing legislations.
- **Identification of contaminated sites (Annex A, B and C Chemicals) and remediation in an environmentally sound manner:** Article 6 of the Stockholm Convention requires a Party to develop appropriate strategies for identifying sites contaminated by POPs chemicals and to undertake remediation of contaminated sites in an environmentally sound manner. Though not conclusive, the preliminary inventory on contaminated sites identified 77 sites wholly contaminated by POPs chemicals including PCBs. This finding shows that the issue of contaminated sites by POPs chemicals is a serious problem in the country. Therefore, there is a real need to undertake a comprehensive inventory and assessment of contaminated sites and determination of the extent and severity of the environmental and socio-economic impacts of such sites. Further corresponding strategies for the management of the identified contaminated sites in Ethiopia will be developed.
- **Awareness levels**: Despite the efforts deployed during the NIP development, current levels of awareness on the adverse effects of POPs, especially PCBs, are still low. The workers and general public are generally not aware of the health and environmental adverse effects of PCBs. Low levels of awareness lead to continued

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mismanagement of PCB-containing equipment. Therefore, there is a need to develop a comprehensive awareness raising strategy by sector and by stakeholder groups, including the interested and affected parties, especially women and children.

- **Environmentally sound management of PCBs:** Ethiopia currently lacks a strategy for the environmental sound management of PCBs and their disposal. The national preliminary inventory on PCB releases was carried out in 2003 and updated in 2015-2016, covering electrical equipment operational within the former EEPCO. These inventories are based on assumptions using year of manufacture as basis since no analytical analysis of the oil was conducted. There is, however, a strong likelihood of large presence of PCB-contaminated oil in the EEP and EEU network (formerly EEPCO), given their present lack of best practices during maintenance and repair of transformers.

  The electrical equipment assessed in the inventories was power capacitors and transformers. According to the 2003 preliminary inventory, the number of PCB-containing transformers and capacitors within the operational premise of EEP and EEU are 2,505 and 40, respectively. Corresponding quantities of PCB-containing dielectric fluids would be in the order of 1,181 t and 1.2 t for transformers and capacitors respectively. The highest number of suspected PCB-containing transformers is found in the Central Region of Ethiopia (i.e. 674 units), followed by 309 transformers in the Western Region.

  The 2015-2016 NIP update project included an update of the PCB inventory, which was finalized in March 2016. The update identified small changes from the initial 2003 baseline, and its findings were as follows: 2,435 suspected PCB-contaminated transformers identified (of which 2,242 are currently in use) and 33 operational suspected PCB-contaminated capacitors. The corresponding quantities of suspected PCB-containing dielectric fluid is estimated to be 1,032 t and 1 t respectively. Some of the transformers date as far back as 1957. More than 150,000 l (225 t) of used oil are also stored in barrels, which may be PCB-contaminated. While the initial 2003 preliminary PCB inventory covered only PCB-containing electrical equipment operational within the former EEPCO, the updated PCB inventory also covers equipment held under METEC, which was established for the purpose of refurbishing and manufacturing of transformers other than EEPCO's. Similar to the initial 2003 inventory, the inventory update also only addressed electrical equipment imported before 1989.

  The fact-finding mission in September 2017 also identified an additional 5,000 transformers that have been added to the network since the updated inventory was completed (bringing the total to 32,000 transformers), as well as approximately 4,000 out-of-service transformers in scrapyards that were not included in the inventory. There are also some 1,400 capacitors in operation in the network in Ethiopia.

  The result of the inventories and supporting information indicates that further assessment will need to be carried out on suspected PCB-containing electrical equipment in EEP, EEU, METEC, and with a small number of private sector owners. Therefore, a comprehensive inventory and assessment of the PCB situation in Ethiopia will offer the best basis for the sound management of PCBs.

- **Lack of technical infrastructure for POPs assessment, measurement, analysis, alternatives and prevention measures, management, research and development:** There is currently no laboratory that has experience with PCB analysis in Ethiopia. However, gas chromatographs and High-Performance Liquid Chromatography (HPLC) systems as well as instrumentation for metals' analysis are available, and the laboratories can be trained to undertake POPs analysis. In the two Global Monitoring Plan (GMP) projects that Ethiopia participated in, the infrastructure and human resources were used for the sampling of the relevant matrices, such as water, air, and human milk. Relevant activities under the GMP projects included training in sampling techniques, analytical chemistry, and instrumentation to be applied for the Global POPs Monitoring, as well as training activities for POPs analysis at other laboratories to become familiar with the techniques to be used. This project will provide an opportunity to further strengthen PCB analytical capacities, in some of the pre-identified laboratories – the Ethiopian Conformity Assessment Enterprise (ECAE) and Ethiopian Environment and Forest Research Institute (EEFRI) – by providing appropriate technical support including the method for PCB analysis and accreditation.

Baseline scenario or any associated baseline projects

Ethiopia conducted a national preliminary inventory on PCB-containing electrical equipment in 2003 and undertook updating in 2015-2016, covering operational equipment within the Ethiopian Electric Power Corporation (EEPCO; later EEP and EEU). The electrical equipment assessed in the inventories was power transformers and capacitors. The result of the updated 2015-2016 preliminary inventory indicates that suspected PCB-containing transformers and capacitors within EEP and EEU are 2,435 and 33 pieces, respectively (of which 2,242 transformers are currently in use). Corresponding quantities of suspected PCB-containing dielectric fluids are 1,032 t and 1 t for transformers and capacitors, respectively.

Currently, the awareness levels in Ethiopia both for the public and electricity utility workers on the health and environmental adverse effects associated with PCBs are at best very low and in many cases non-existent. As a result, PCB best management practices are lacking. This has increased the risk of exposure to PCBs to both the population and the environment. Therefore, practical measures that will quickly reverse this undesirable trend are urgently needed.

During the Project Preparation stage, a fact-finding mission was undertaken to verify the available information on PCB-containing electrical equipment as well as identify any missing information such as, inter alia, additional stakeholders to be included and supporting activities underway. The following are the key findings:

- MEFCC, EEP, EEU, and METEC, through review of their respective records, verified the correctness of data related to the existing 2016 preliminary PCB inventory undertaken during NIP updating. Since the preliminary inventory was updated (2015-2016), an additional 5,000 transformers have been added to the network (under EEU) bringing the total to 32,000 transformers in operation. It was also determined that approximately 4,000 out-of-service transformers in EEU scrapyards were not included in the inventory. There are also some 1,400 capacitors in operation in the network in Ethiopia.

  Upon further discussions on the merits of including the 50 Chlor-N-Oil tests during the PPG phase, it was agreed that: 50 Chlor-N-Oil tests are not confirmatory tests and therefore will just provide an indication of potential PCB-contaminated transformers; and since the PPG phase funding is limited, a comprehensive sampling and analysis of the transformers is not possible as only a limited sample can be conducted. Therefore, there is no formula to guarantee that the selection of the sample population will be representative enough to establish the national PCB-contamination trends; and in case the selected sample population for sampling and analysis is an outlier, i.e. is all positive or negative, this can result in distortions and will not be useful to the project preparations. Therefore, it was agreed that the PPG and related mission should limit itself to verifying contaminated sites, checking nameplates for possible presence pure PCBs, verifying the total number of transformers, and confirming the other unconfirmed information from the PIF.
- A site inspection of the Kotebe transformer repair and scrapyard also revealed approximately 3,000 out-of-service transformers, with varying degrees of oil. Many leakages were observed including oil (not PCB-tested) running downhill with rainwater into the nearby river. Many transformers lacked at least one bushing and consequently, rainwater enters and the oil (lighter in density), moves up, and leaves the casing. An oil storage tank on site is also overflowing.
- EEU is about to begin a World Bank-funded project to undertake a comprehensive "fixed assets inventory", which includes all EEU (32,000) transformers in the country. There is a good opportunity to add the collection of data specifically relevant to the presence of PCBs in the inventory exercise. The inventory can also provide an opportunity to reduce the amount of sampling and analysis required, by making some assumptions based on the comprehensive inventory data (and other supporting data). EEU also has a project on the rehabilitation of all of their warehouses in the country including transformer repair facility; requests for tenders have been issued.
- The Ethiopian Conformity Assessment Enterprise (ECAE), which is the major conformity assessment organization in the country providing testing laboratory, inspection, and certification services to industry and the public, is sufficiently equipped to conduct PCB analysis if it is provided with PCB standard analysis method, columns, standards, consumables, accreditation and training. ECAE has triple quad liquid chromatography

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with mass spectrometry (LC-MS/MS) and high-performance liquid chromatography with fluorescence detector (HPLC-FLD), and is interested in participating in the project.

- METEC, which assembles transformers, exclusively for the utility sector, i.e. EEP and EEU, is interested in introducing best practices in their operations of production and refurbishment (at other locations) of transformers. Among the best practices are to initiate the labelling of all PCB-free transformers that are produced or refurbished by METEC as "PCB-free upon delivery" and ensuring that imported oil is certified PCB free.
- EEFRI is conducting a 3-4 year PCB phytoremediation project at the Kotebe, Gofa, and other sites potentially contaminated with PCBs. A private lab is involved for the GC analysis. The project is funded by the Ethiopian government with a budget of 10 million Ethiopian Birr (425,000 USD). EEFRI is interested in participating in the project and supporting sampling and analysis.

Consistency with National Priorities

This project is fully consistent with the NIP on POPs, submitted by the Federal Democratic Republic of Ethiopia in May 2006, as well as the draft updated NIP, which includes an updated PCB inventory (finalised in March 2016). Additionally, Ethiopia has prioritised the effective management of POPs chemicals in the Ethiopian context and to reduce, and ultimately eliminate, the use and release of POPs in accordance with the requirements of the Stockholm Convention and national sustainable development objectives and strategies such as the Environmental Policy, Sustainable Development and Poverty Reduction Strategy Program (SDPRP), and Plan for Accelerated and Sustainable Development to End Poverty (PASDEP).

Ethiopia is on its third framework, the UN Development Assistance Framework (UNDAF), jointly developed by the Government and the United Nations Country Team. The project is fully aligned to UNDAF Ethiopia's five-year national development plan, the Growth and Transformation Plan (GTP).

III. STRATEGY

As outlined in Section II above, there are a number of challenges regarding the disposal or decontamination of PCBs in Ethiopia. First, the updated 2016 preliminary PCB inventory contains limited data as the update team was only able to undertake visual inspections of the transformer nameplates and the condition of the equipment. Field tests and laboratory analyses were not conducted due to a lack of resources. Second, the preliminary inventory was limited to closed applications: insulating oil in electrical transformers and capacitors. Semi-closed (hydraulic uses, etc.) and open applications (paints, varnishes etc.) were not considered.

In addition, some suspected PCB-containing transformers and capacitors that were identified in the 2003 preliminary PCB inventory were no longer traceable during the inventory updating process. As outlined in the 2016 inventory, old transformers taken by METEC are refurbished and redistributed to different regions with new nameplates. There is also a high possibility of cross-contamination among the various transformers.

Other challenges include the high cost of replacing transformers and capacitors, and complexity of sampling and analysis of in-use equipment, which also requires significant coordination effort to coincide with the maintenance schedule of electric equipment. In addition, PCB management and disposal is often considered to be a low priority by the relevant authorities and/or there is low awareness on the issue. As a result, there are no clearly stipulated or specific regulations in Ethiopia that are applied to control the import of dielectric fluids, particularly insulating oils for transformers and capacitors, or regarding the export of PCB-contaminated materials.

In the absence of appropriate and enforced legislation and regulations, the commitment of PCB-owners to address the issue of PCBs is low, especially considering the high costs related to the decontamination or disposal (with subsequent replacement) of contaminated equipment. For this reason, the national PCB management situation can be effectively addressed only if the government's commitment and capacity are high.

Another challenge is the lack of PCB treatment technologies within the country. This is a common feature in many countries supported by UN/GEF projects on PCB management. This usually results in PCB-owners undertaking

substantial investment for shipping PCB-containing equipment abroad, typically to the EU, for disposal. In the case of Ethiopia, there are no technologies for treatment of low PCB-containing equipment or disposal facilities available for high PCB-containing equipment or waste.

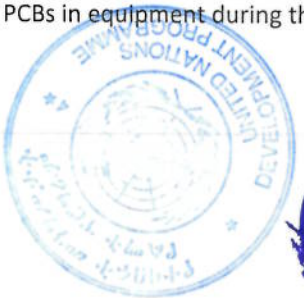
The project strategy, as outlined below, is therefore designed to address all of these important aspects.

1) Increasing national PCB management capacities including development and enforcement of legislation: This will require working in partnership with the control authorities (including MEFCC, Ethiopian Revenue and Customs Authority, and Ministry of Justice) and the key stakeholders such as the utility companies (EEU, EEP) and other known and potential owners of PCB-containing equipment (e.g. METEC and the private sector) to: develop and implement practical guidance on the ESM of PCBs; provide assistance in the development and implementation of legislation; provide support regarding the fulfillment of legal obligations towards recording and reporting PCB-related information; conduct inspections at sites where electrical equipment (transformers, capacitors) are in operation or stored; and train operators and officers from both governmental and nongovernmental PCB-containing equipment/waste owners.

2) Increasing levels of awareness: The issue of PCBs is typically not a well-known environmental issue. Except for extremely high pollution levels that result in acute and immediate health impacts, the toxic effect of PCBs (such as the increase of cancer probability) is delayed in time and not associated with any "visible" pollution like black smoke from open burning, factories' stacks, or turbidity in water. Therefore, the hazards associated with PCBs are usually not perceived as an immediate threat by many. However, unsafe disposal of PCBs results in the contamination of food chain and other environmental media (e.g. sediments and soil), which may last for years. In 2013, PCBs were re-assessed by the International Agency for Research on Cancer (IARC) and are now classified as "known human carcinogens (class 1)" compared to the previous "probable human carcinogens (class 2)" category. Therefore, there is a need to inform the key stakeholders and the general public about the benefit brought by the project so that the government and other PCB owners are encouraged to undertake necessary actions.

3) Engaging stakeholders: The project's goals can only be satisfactorily achieved with the buy-in of the key stakeholders. No major change in current practices can be achieved if there is little or no awareness of the risks posed by PCBs, and if stakeholders do not feel the need to address the PCB management issue. As previously described in more detail, the project had identified at PIF stage a number of important stakeholders which will be involved in all project activities during its implementation. Besides MEFCC, which will be the national implementing institution, key PCB holders such as EEP, EEU, and METEC were informed of the project's related benefits and the expected and required level of commitment towards it. As a result, they participated proactively in all of the project development activities, including providing lists of their power equipment and expressed their commitment to facilitate oil sampling and analysis for PCB content. Other stakeholders were also involved in the stakeholder consultations, including: Ministry of Water, Irrigation and Electricity; Ministry of Health; Ministry of Justice; Ministry of Industry; ECAE; EEFRI; Ethiopian Revenue and Customs Authority (ERCA); Ethiopian Standard Authority; Ethiopian Airlines, and PAN Ethiopia. More stakeholder engagement, by involving other line Ministries, academic institutions, NGOs, civil society associations, trade unions, and other beneficiaries is planned during the project implementation.

4) Strengthening the reliability of information through updating of the PCB inventory: At the PIF stage, the only available information was based on the year of manufacture and details from existing nameplates. There were also a number of suspected PCB-contaminated sites and stored oil that have been identified (and visited during the PPG fact-finding mission). Due to a lack of PCB-related legislation and lack of knowledge on PCBs management, there was very little information available on the presence and concentration of PCBs in equipment (in service and out-of-service). The information concerning the number, age, and level of contamination of PCB equipment is indeed essential for both management purposes and identification of the proper treatment/disposal technologies. While this situation was already evident at the PIF formulation stage, it was agreed, for practical reasons, that the PPG and related mission should limit itself to verifying contaminated sites, checking nameplates for possible pure PCBs, verifying the total number of transformers, and confirming the other unconfirmed information from the PIF. The project will therefore continue consolidating the PCB inventory by undertaking dielectric oil sampling and analytical determination of PCBs in equipment during the first two years of its implementation.





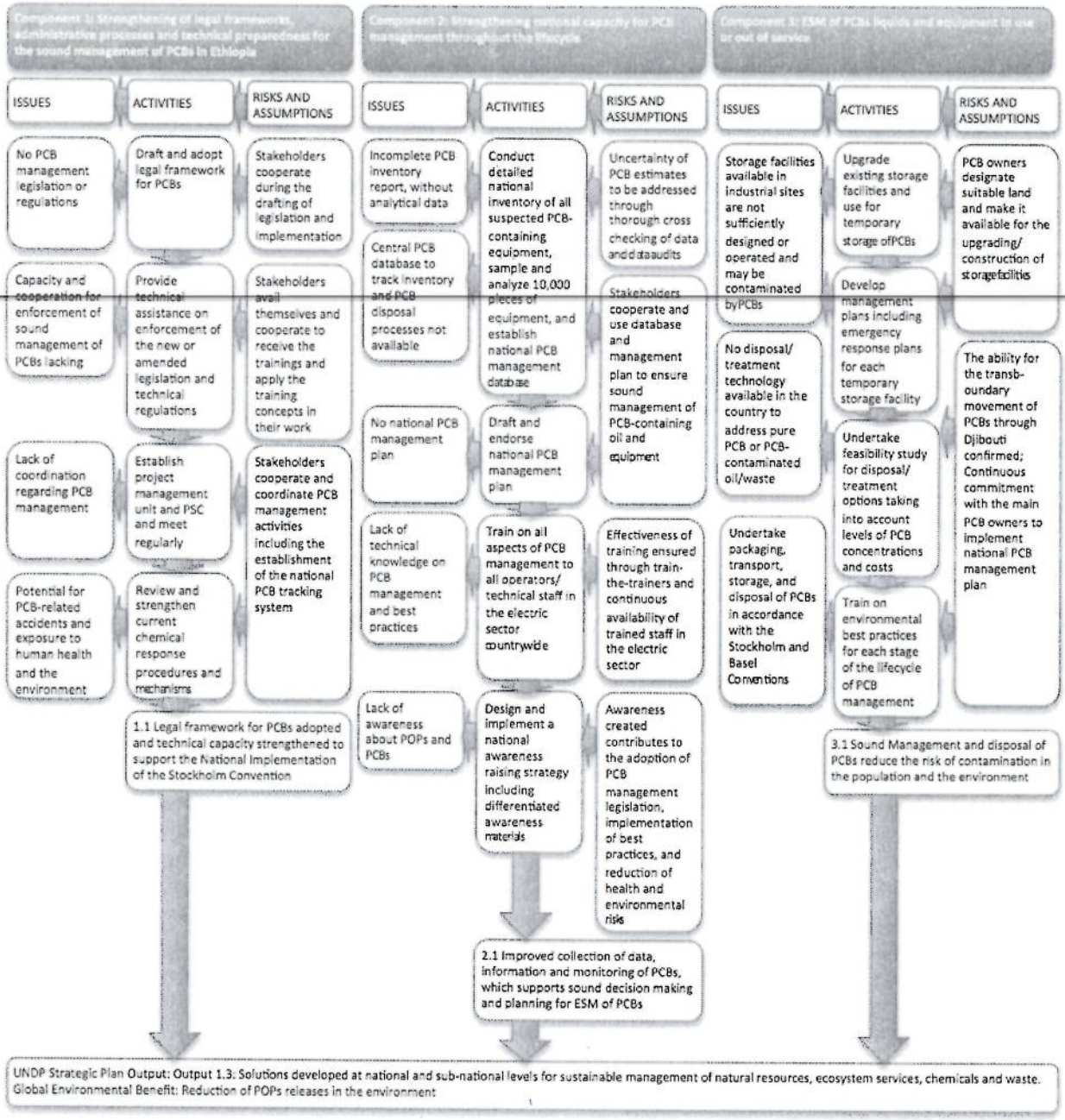
The following criteria will be used in determining the total number of transformers to be sampled in Ethiopia: (i) all transformers that have been refurbished or repaired will be sampled; (ii) batch sampling will be applied to relatively new transformers that have not been serviced and come from the same supplier with the same origin of manufacturer, same ratings, etc.; (iii) transformers with nameplates that indicate possible PCB presence; and (iv) all transformers that have been serviced or decommissioned.

5) Provide know-how and financial support on the technologies for the disposal of PCB equipment. Clearly, one of the central issues for the ESM of PCB-containing equipment concerns the availability of technical and financial resources for PCB disposal. In the absence of a sound know-how related to disposal operations of PCB-containing equipment, the cost-benefit ratio is always very high, for the following reasons: the options allowing the chemical destruction of the PCBs in the dielectric oil without destroying the oil itself are usually not considered, so that the dielectric oil, which is usually a very expensive asset, is lost; the planning for phasing out PCB equipment is not aligned with their residual value, so that very often a strategy aimed at minimizing the cost of disposal of PCB-containing equipment is not pursued; and the legal aspects related to the storage of PCB-containing equipment under maintenance versus PCB phased-out equipment (to be considered waste) are usually neglected, exposing owners of PCB-containing equipment to a severe liability risk.

The project will therefore assist the country in developing and implementing a sound national PCB management programme which will take into consideration all the above to increase the commitment of the potential PCB owners to comply with the new or amended legislation on PCBs and to have the PCB-contaminated equipment treated or disposed under the project.

The strategy outlined above is summarized in the Theory of Change diagram below (see Figure 1 on the next page).

Figure 1: Theory of Change for the project



The Proposed Alternative Scenario

The proposed alternative scenario aims to support the country with the necessary technical and financial assistance to ensure that at least 150 tons of PCBs-containing equipment and waste are identified, properly managed, and disposed. The project will be implemented in partnership with the relevant institutional and utility stakeholders, i.e. the MEFCC, EEP, EEU, METEC, and other confirmed or potential holders of equipment contaminated by or containing PCBs.

The project is designed to either confirm the lower bracket in terms of amount of PCBs in Ethiopia and fully address the PCB issue in Ethiopia as part of this Phase 1 project; or identify additional PCBs and therefore justifying a phase 2 follow-up PCB project. In either case, the project will ensure that enough capacity for the sound management of PCBs is built for the management of any further PCBs identified after project's closure.

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The project consists of the following four components:

- Component 1: Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia
- Component 2: Strengthening national capacity for PCB management throughout the lifecycle
- Component 3: ESM of PCBs liquids and equipment in use or out of service
- Component 4: Monitoring, evaluation, and replication.

The description of the project by component, outcome, and output is presented in the section "Results and Partnerships" below.

The Monitoring and Evaluation component is described in detail in Section VI (Monitoring and Evaluation Plan). Regarding knowledge management, the project will build on existing experience gained in similar programmes from the African region, as well as from other geographic areas covered by UNDP. UNDP has to-date been implementing similar approaches in, for example, Georgia, Ghana (with UNITAR), Latvia, Kazakhstan, Kyrgyzstan, Jordan, Montenegro, Morocco, Mexico and Turkey; formulating new programmes in Belarus, The Gambia, Kenya, Nigeria, and other partner countries for PCBs; as well as a range of projects on POPs pesticides re-packaging and disposal, and on e-waste and lead.

Information exchange between these initiatives is expected to take place via accumulated knowledge at UNDP Regional Hub (formerly in Bratislava, Slovakia, and now in Istanbul, Turkey), that provides technical oversight to ongoing UNDP-coordinated PCB initiatives; and through engagement of qualified technical expertise that will be beneficial to the project in Ethiopia. Coordination with other UN agencies working on chemicals and capacity building will be ensured so that the best quality of services can be provided to the country and that experiences gained through this project are fully disseminated in Africa and beyond.

The Stockholm Convention's mechanisms like the PCB Elimination Network (PEN) and participation in collective information events such as Webinars organized by the Basel/Stockholm Conventions Secretariat will be utilised as knowledge management tools. At the national level, during project implementation, a web portal for sharing relevant project information will be designed and launched. Public access will be granted to all resources which are of public relevance such as project performance, guidance on PCB material management, environmental impact assessment documents etc. User-friendly summaries and multi-media materials based on the project activities will be uploaded on the portal periodically, and proposed for partners' web sites. Furthermore, the project will plan for workshops to be held with the purpose of introducing previous experiences on POPs and PCBs management from other countries.

Incremental cost reasoning

In the table below, the incremental and catalytic contribution of the alternative scenario in comparison with the baseline project is summarized by project component.

Table 1: Incremental Cost Reasoning

Incremental reasoning and global environmental benefits (GEB)			
Component	Baseline	Alternative scenario	GEB
Component 1: Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia	Government of Ethiopia implementing regulation that does not contain specific reference to PCBs. No monitoring network of imported equipment such as capacitors and transformers that are likely to contain PCBs.	The project will provide technical and financial assistance to speed up the effort related to the review of current legislation which will include specific reference to PCBs. The technical and financial assistance provided will also enable Ethiopia to develop and implement a national PCB tracking system to help prevent further imports of equipment such as transformers and capacitors that are likely to contain PCBs. Export of suspected PCB-contaminated transformers and capacitors will also	Not quantifiable. However, the project will ensure the long-term sustainability of actions aimed at reducing the release of PCBs into the environment by environmentally sound disposal and enforcement of legislation.

		be prevented. GEF Grant: USD 172,000	
Component 2: Review and strengthening of national capacity for PCB management throughout the lifecycle	A comprehensive national PCB inventory which includes data from utility facility level and mining facilities is missing. PCB management plans and operational procedures are non-existent. Defective equipment containing PCBs are in service all over the country and thereby continue to expose both humans and the environment to PCB risks.	The project will support the Government of Ethiopia and the private sector to undertake a comprehensive and reliable inventory of PCBs. The database will also be used by the private sector to improve energy service delivery beyond the project lifespan. This will contribute directly to Ethiopia's social and economic development. GEF Grant: USD 546,000	This component will deliver the necessary management tools for achieving the disposal of PCBs, thereby eliminating the risks of PCB releases and contributing to the overall reduction of the global PCB aggregate load in the environment.
Component 3: ESM of PCBs liquids and equipment in use or out of service	EEPCO, later on EEP/EEU, have been replacing old and defective transformers and capacitors that may also contain PCBs. Many of these decommissioned transformers and capacitors are sold to the local recyclers who lack both the knowledge and expertise to safely handle this type of equipment.	The project will secure the ESM disposal of at least 150 metric tonnes of PCBs. It will explore the option of decontamination, as well as developing domestic disposal technologies if feasible, and the capacity building of the country to dispose of future stockpiles in compliance with SC requirements. GEF Grant: USD 961,500	150 metric tonnes of PCBs disposed of. PCB-contaminated transformers will be dechlorinated on site. To reduce costs, a joint dechlorination venture with Kenya will be explored (if project timeframes coincide).
Component 4: Monitoring, evaluation and replication	There is still a lack of information available on the general PCB situation in the country. This has greatly contributed to the mismanagement of PCB-containing equipment and PCB environmental releases.	The project will provide a platform for exchange of information with other countries on PCB management techniques and approaches. GEF Grant: USD 130,000	ESM will be identified, documented and disseminated to national stakeholders and other countries in the region where similar projects are being undertaken.

Innovation, sustainability and potential for scaling up

The project will establish a sound regulatory framework in Ethiopia and will put emphasis on enforcement. The project will establish a National Expert Group, including experts from the government, private sector, academia, and NGOs. This multi-disciplinary working group will provide sound expert advice to the project team and will cover all topics related to the lifecycle of PCBs (administrative processes for PCB disposal, inventory taking, response to emergencies, disposal, and maintenance and storage of equipment).

The project will make full use of on-site survey/monitoring/inspections: monitor the upgrading/construction of PCB storage sites; and analyse and monitor PCB-contaminated sites in the country. The project will facilitate the analysis of PCBs for the contaminated sites (PCB identifiers are planned to be funded through co-financing). UNITAR will conduct training for the local community leaders within localities impacted by PCBs.

The experience gained through this project in using modern monitoring tools and the development of guidelines and standards can be scaled up to countries with similar situations and to other areas of chemicals management in the country or beyond.

Management of PCB including transport, storage, and disposal will also be sustained and replicated in the following ways:

- An improved national legislative and regulatory framework for PCB management along with strengthened enforcement capacity will contribute to the sustaining of the project's results beyond the project's duration.
- The development of guidance and provision of training on the management of PCBs and contaminated sites will also strengthen capacity on processes that can be replicated and applied to other POPs and chemicals management. This applies to various stages of the life cycle such as transportation, storage, and disposal, as well as site identification and management regarding other contaminants.
- Establishing a national PCB tracking system to prevent importation and illegal use of equipment likely to contain PCBs, supported by national legislation, and including representatives of government, private sector,

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customs officers, academia, and NGOs, will also contribute to sustainability and prevent further imports of POPs.

- Prioritizing as much work as possible with local operators while providing the necessary training and ensuring international standards are met, as per the obligations of the Stockholm Convention. This will provide the co-benefits of capacity development and employment returns in the country, favouring a sustainable long-term engagement of the national stakeholders. Collaboration with local businesses will be two-fold. First, through the promotion of local services for the environmentally sound collection and transport of PCB oil and PCB-containing equipment (already demonstrated in the recently-completed Ghana PCB capacity building project) and second, by promoting the recovery of decontaminated, and therefore higher value, metal scrap by local businesses, following all safety measures required by Stockholm Convention. These activities will be undertaken in coordination with international firms specializing in PCB management and disposal, and related training will be provided to Ethiopian counterparts.
- Valorising reclaimable materials generated during treatment will be investigated to offset treatment costs.
- Exchange of experiences with other countries in the region will be explored, within the limits of the proposed budget, in order to promote through South-South cooperation the replication and/or adoption of best practices from and in neighbouring countries.
- All guidance and training materials will continue to be accessible on the project websites beyond the project's duration.
- Awareness raising activities will be targeted to all those involved in and/or impacted by PCBs and contaminated sites. The raised awareness will facilitate understanding of the associated risks and the modification of related practices to be applied for years to come.
- The approach and related lessons learned from the project can serve as a basis for scale-up and replication in other countries, particularly in the region. The project will document these in, inter alia, the annual lessons learned and key experiences reports, which can assist other countries to replicate the most suitable approaches. The capacity strengthened in Ethiopia through the project can also be applied to other areas of chemicals management in the future.

The project will make use of consolidated technologies for the disposal of PCBs. High-concentration PCB waste and soil contaminated by PCBs will be pre-treated as necessary, packaged, and shipped for destruction through high temperature incineration (HTI) or co-incineration in BAT/BEP compliant plants in compliance with the Basel Convention rules. However, based on waste characterization outcomes, management and disposal options will be evaluated. The evaluation of disposal options will take into account the levels of PCB concentrations and the condition of the equipment. To reduce costs, a dechlorination approach will be explored. For example, the treatment or disposal of contaminated transformers which are relatively new and in good working order might only require a dechlorination approach – whereas old, defective, and highly contaminated transformers in low- or high-risk areas might require a different approach. These types of transformers and capacitors will be considered for dismantling at licensed facilities and may be incinerated with PCB oil at an incineration facility meeting international standards as defined by the Stockholm Convention. More importantly, the national PCB management team will decide on the PCB thresholds using internationally acceptable approaches and characterize the risk categories. The final decisions for treatment or disposal include several options. For example, a joint dechlorination venture with Kenya for PCB-contaminated oil (the feasibility of which would depend on coinciding project timeframes and logistics, and cost-effectiveness), incineration in cement kilns (if practical), or export for destruction. The process for evaluating these options will be robust and will include considerations such as: condition of the equipment, convention requirements, PCB concentrations in the waste streams, and local conditions. Providers of the service of waste pre-treatment, packaging, shipment, and disposal will be selected through competitive bidding in compliance with UN and Ethiopian rules.

Building on the strong cooperation illustrated in the course of project preparation among the key partners (MEFCC, EEP, EEU, METEC, ECAE, and EEFRI) the project will adopt a collaborative approach to implement all of the in-field activities related to PCBs identification, collection, storage, and disposal. This will have the following advantages: developing, promoting, and enhancing collaborative processes among the key project stakeholders; facilitating access to the sites for conducting sampling and analysis of equipment and waste, as well as for storage and

packaging of PCB-containing equipment before export; and ensuring that the culture and views of the public and private partners will be properly integrated with an increased mutual understanding.

IV. RESULTS AND PARTNERSHIPS

i. Expected Results:

Project Objective: This project aims at strengthening the capacity of national stakeholders to manage PCBs as well as to achieve PCBs elimination, as identified as a priority in Ethiopia's NIP—a first Phase to achieve ESM of PCBs by 2025.

Global Environmental Benefits (GEBs): It is envisaged that under the project 150 tons of PCB oil transformer carcasses, capacitors, and contaminated soils will be properly disposed of in such a way that the PCB content in these equipment or waste will be irreversibly destroyed. Therefore, the project will contribute to the implementation of the Stockholm Convention's requirements by Ethiopia.

Socio-Economical Benefits: The project will bring direct and indirect social and economic benefits. The direct and immediate benefits are those related to the implementation of the project itself, including employment of project staff and operators; possible establishment of a public-private partnership for the management of the PCB-contaminated equipment and waste; and financial incentive for the PCB owners for the sampling, analysis, and treatment of their PCB-contaminated equipment.

The project will also bring obvious indirect benefits. The removal of PCB sources (equipment, waste, contaminated soil) from the environment will prevent the contamination of the environment by these substances. This will translate into reduced mortality and morbidity of the population in the long-term, with specific reference to the pathologies associated with exposure to PCBs, resulting in the reduction of social and economic costs. In addition, the technical capacity developed by the project partners (project staff, consultants, stakeholders) in the management of PCB waste will result in the creation of skills and capabilities for the management of hazardous substances and waste in general, which will result in the creation of specialized jobs in the country.

Knowledge Management: The project will generate a significant account of knowledge which will be carefully managed during the project implementation, so that the project results will be properly communicated and disseminated during the whole project lifecycle, and lessons learned and success stories will be shared among other countries/UN country offices.

Project Description

Component 1: Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia

This component will support Ethiopia to conduct a comprehensive assessment of the national and institutional legal framework, key stakeholders, and gaps and overlaps, and to prioritize needs. After the comprehensive review and assessment, a decision will be made to draft new legislation specifically on PCBs or to strengthen the existing ones with inclusion of PCB-specific provisions. The assessment will also address institutional capacity and arrangements for the management of PCB, and gaps and overlaps will be identified and addressed through consultation and coordination processes. In addition to the legal instruments to be put in place for PCB management and disposal, a national PCB tracking system to prevent illegal importation of equipment likely to contain PCBs will be developed. This will involve periodic technical visits to the PCB holders, which will provide technical support and advice to purchase PCB-free transformers, capacitors, and related equipment; and preventing exports of suspected PCB-containing transformers. As part of the actions to prevent PCB-related accidents, the current chemical response procedures and mechanisms will be strengthened and piloted.

Internal guidelines and procedures targeted for utility companies and step-by-step approaches for those working with equipment and oil likely to contain PCBs will be developed and training provided for all the affected workers. The utility companies will be requested to sign off on these guidelines and procedures to confirm their commitment.

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Component 2: Review and strengthening of national capacity for PCB management throughout the lifecycle

This component will support Ethiopia to review and strengthen data collection and management capacity, as well as to develop detailed PCB management plans at the facility level. A comprehensive PCB training programme will take place, covering PCB inventories, analysis, prioritization, and development of management plans.

eThe inventory database will also provide a platform for characterisation of PCB waste streams. This characterization will then facilitate a feasibility study of using cost effective, technologically robust, and available technologies to promote environmentally sound management and disposal of PCBs. About 33,000 pieces of transformers and capacitors will be inventoried covering all 10 regions of Ethiopia. The outcomes of the feasibility study will form a basis for the development of PCB management plans.

Furthermore, this component will result in improved generation/collection of data, information, and monitoring of PCBs providing solid support to sound decision-making and planning process for ESM of PCBs. Comprehensive guidance on operation and maintenance of PCB-contaminated equipment, identification and labelling procedures, handling, transportation, temporary storage, and disposal will be developed.

Additionally, a national PCB management plan will be developed and tested at the national and facility levels. The national PCB tracking system will also be tested. Training will be provided at the beginning of the implementation of each activity.

Under this component, an awareness raising strategy will also be developed, awareness materials such as brochures, project cards, meeting banners and posters, for different target groups, will be developed and disseminated at the different levels – communities, technicians and policy-makers. Media briefing events both at mid-level managers (facility managers) and high-level (ministers, members of parliament and chief executives) will be planned and executed. Furthermore, local communities will have access to awareness raising materials in their own local languages and trainings for the community leaders will be organized. All these efforts will be geared towards ensuring that there is better understanding of the problem and ensure protection of the population and the environment from adverse effects of PCBs. The awareness raising will also contribute to generating political support for the project.

Component 3: ESM of PCBs liquids and equipment in use or out of service

This component will minimize and to a greater degree eliminate the risk of adverse effects of PCBs in the population and the environment. The database information will provide the required information to characterize the PCB waste streams and concentrations in the various matrices where PCBs are found. PCB-containing transformers and capacitors will be collected and transported to four central temporary storage facilities. Based on waste characterization outcomes, management and disposal options will be evaluated. The project will establish priorities according to the conditions of the PCB stocks and to the location. In that sense, the PCB management plans, developed in the previous project component, will guide facilities in their maintenance and disposal operations. The evaluation of disposal options will take into account the levels of PCB concentrations and the condition of the equipment. To reduce costs, a dechlorination approach will be explored. For example, the treatment or disposal of contaminated transformers which are relatively new and in good working order might only require a dechlorination approach – whereas old, defective and highly contaminated transformers in low- or high-risk areas might require a different approach. These types of transformers and capacitors will be considered for dismantling at licensed facilities and will be incinerated with PCB oil at an incineration facility meeting international standards as defined by the Stockholm Convention. More importantly, the national PCB management team will decide on the PCB thresholds using internationally acceptable approaches and characterize the risk categories. The final decisions for treatment or disposal include several options. For example, a joint dechlorination venture with Kenya for PCB-contaminated oil (the feasibility of which would depend on coinciding project timeframes and logistics, and cost-effectiveness), incineration in cement kilns (if practical), or export for destruction. The process for evaluating these options will be robust and will include considerations such as: condition of the equipment, convention requirements, PCB concentrations in the waste streams, and local conditions.

Furthermore, under this component, selected locations designated to serve as sites for PCB temporary storage facilities will be environmentally- and human-risk assessed. Management plans including emergency response

plans for each temporary facility will be developed and implemented for each site. 150 metric tonnes of PCB oil transformer carcasses, capacitors, and contaminated soils are expected to be shipped out of the country and disposed of through high temperature incineration (standards, licensing scheme, and licensed facilities to incinerate PCBs are currently not available in Ethiopia.). The estimation of 150 metric tonnes of PCB oil transformer carcasses, capacitors and contaminated soils is based on the preliminary NIP data, the 33,000 transformers in the country, and the trends from other countries of similar nature, based on the experience of UNITAR in other countries. The precise figure will be confirmed during project implementation.

Based on other experiences from the region, the total cost of PCB disposal including transportation is in the range of USD 3,500-4,500 per tonne. Factors that impact the cost include location of the port of exit, composition of PCB waste, inland transportation, and distance from the origin of PCB waste (Ethiopia) to the final destination. Djibouti will be the port of exit for the Ethiopian PCB materials; Djibouti has been a point of transit for other hazardous waste exports for disposal operations in the past. This possibility was confirmed by a representative of Djibouti, provided that necessary support documentation as per the Basel and Stockholm Conventions are provided to the competent authority in Djibouti.

Training (both theoretical and practical) will be conducted before the commencement of each activity planned under this component.

Considering the training required and the potential additional costs linked to the fact that Ethiopia is a landlocked country, which can make the operations more complex and costly, a total cost of USD 900,000 for 150 tonnes has been estimated for this component, which corresponds to USD 6,000 per tonne. This is a reasonable estimate of the expected overall costs for this disposal operation and the required necessary preparation for it. Moreover, as the project will enable the development of a comprehensive foundation for PCB management (which can also be applied to other POPs and chemicals management), subsequent projects, such as a phase 2 PCB project (which will not require foundational activities), will be implementable at greatly reduced costs compared to other PCB projects.

Component 4: Monitoring, evaluation and replication

Under this component, an internal project monitoring and evaluation (M&E) team will be constituted. The M&E team will regularly provide quarterly reports on project performance, stakeholders' views on project impacts, and recommendations for improvements. Yearly lessons-learned reports will be prepared and disseminated. Lessons learnt and case study reports for each demonstration project (e.g. upgrading temporary storage sites) will be prepared for each project milestone, endorsed by national stakeholders, and shared internally and externally with other project countries such as Kenya and others, where similar projects are envisaged, and generally with countries implementing PCB management projects. Best practices for introduction of ESM will be identified, documented, and disseminated to participants, other stakeholders and Parties of the Stockholm Convention. The national project website will be developed for engagement, sharing good practices, guidance/tools, and experience. End-of-project publications will be prepared and disseminated.

ii. Partnerships:

The project will be implemented in partnership with the relevant institutional and industrial partners, i.e. MEFCC, EEP, EEU, METEC, other potential holders of PCB equipment, and other interested and affected stakeholders. Each one of these partners will play a specific role in ensuring that the changes needed for the project implementation are achieved.

Ministry of Environment, Forests and Climate Change (MEFCC): The role of MEFCC, in terms of regulatory developing and implementing controls and associated public-wide and sector-specific communication of PCB management rules under the new or amended national legislation, and for providing guidance to the targeted partners to fulfill their obligation, is a key for the success of the project. As a regulatory body in the field of environmental quality monitoring and protection, MEFCC will also assist in PCB inventory data collection and management, licensing for the related waste treatment activities, where applicable, and environmental monitoring. Therefore, the project will work together with MEFCC on the development of legislation/regulations,

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technical guidance materials, ensuring compliance of the new or amended legislation with the Stockholm Convention's requirements, and strategic management and communication with stakeholders. As focal point of the Stockholm Convention, MEFCC will serve as the implementing partner for the project in Ethiopia. MEFCC will also assist in the enforcement of legal provisions and control over the PCB owners, and will work closely with the Ministry of Water, Irrigation and Electricity and others, in order to ensure that PCB holders are familiar with all legal requirements and fulfilling them in substantial manner to secure sustainability of project activities. MEFCC will benefit from the project as well through strengthening of capacity by related targeted activities (e.g. joint participation of project staff and government representatives in the comprehensive inventory development).

Potential PCB owners (EEP, EEU, METEC, cement factories, airport, and other private entities): The owners of power equipment potentially contaminated by PCBs are at the same time the direct beneficiaries of the project and key partners. Without the support of the electric power industry as a whole (EEU, EEP, and METEC) in facilitating the identification of their PCB-contaminated equipment and planning for the progressive treatment/ phasing-out of PCB-containing equipment and waste, there is a risk that the project would address only a limited amount of PCB waste. The project will therefore identify the needs of these partners to address their main concerns and minimize the costs associated with the identification, storage, treatment, and disposal of PCB-contaminated equipment and waste. The project will provide PCB owners with financial support for the destruction of PCBs up to an overall amount of 150 tons of PCB oil transformers, capacitors, and contaminated soils, as applicable, and will promote information exchange regarding PCB decontamination and disposal technology. The project will work in partnership with the holders of PCB equipment to assist them in fulfilling their legal obligations (proper recording and reporting including development/updating of sound management plans and labeling), which will be an important input for quality and sustainability of other project activities. The potential PCB owners will also benefit from the project implementation in terms of obtaining a comprehensive national inventory database including PCB equipment and waste details, national PCB management plan, and various training and building capacity activities

Ethiopian Conformity Assessment Enterprise (ECAE): ECAE was established in February 2011 as a federally-owned Public Enterprise, governed by the Ministry of Science and Technology. ECAE is the major conformity assessment organization in the country providing testing laboratory, inspection, and certification services to industry and the public. ECAE has about 190 core and supportive staff throughout Ethiopia. The headquarters and main laboratory facilities are in Addis Ababa and an additional eight branch offices are operational in various parts of the country. ECAE has six specialized testing laboratories operating at the headquarters, and five are accredited (chemical, electrical, mechanical, microbiology, and textile; the radiation laboratory is in process to be accredited). ECAE is sufficiently equipped to conduct PCB analysis. It will be provided with PCB standard analysis method, columns, standards, consumables, accreditation and training under the project.

Ministry of Health: The Ministry's activities focus on the preservation and promotion of the health of all citizens and among other things these include organization of training in public health activities.

Other partners will play mainly a supportive and advisory role within the project's implementation lifetime, in alignment to their respective mandates and specific project activities. More data about their potential role within the project is provided in Table 4 below.

iii. Stakeholder engagement:

It is anticipated that the project will not result in any adverse social or environmental impacts on the population, as its main purpose is the actual removal and destruction a potential source of environmental hazard, to remove such environmental and health related burden. Indeed, specific PCB equipment/waste holders and their workers, the general public, consumers, and communities will benefit from the removal of PCBs as a potential source of environmental contamination.

Civil society and the public at large will be kept informed of project objectives, activities, and achievements through an awareness raising campaign. In addition, the project will give the community several opportunities to provide comments on project activities:

- Participation of civil society NGOs in related forums/seminars/round tables related to decision-making on the project's implementation plans
- Through establishment of moderated discussion forums on the project's website
- As a part of the social and environmental impact assessments (SIA and EIA) procedures, in case the project will envisage the rental/establishment of a PCBs dechlorination facility for low-contaminated PCB oil

A list of the project partners and stakeholders, with their relative roles, is provided in the table below.

Table 2: List of the main project partners and stakeholders with relative roles

NAME	TYPE	SPECIALIZATION	ROLE IN THE PROJECT
Ministry of Environment, Forest and Climate Change (MEFCC)	Government	National environmental policy formulation	• Coordinates the project • Chairs the Project Steering Committee (PSC) • Hosts the project Secretariat and ensures execution of the national comprehensive inventory exercise • Supports national training conducted under the project • Provides technical support to the legislation review
Ministry of Water, Irrigation and Electricity	Government	The Ministry of Water, Irrigation and Electricity of Ethiopia is a federal organization established to undertake the management and regulation of water resources, medium and large-scale irrigation and electricity resources of Ethiopia.	• Member of the PSC • Supports the regulatory aspects of the project. • Participates in the inventory and coordinates the utility sector
EEP	Government	Public utility enterprise. Ensures generation, transmitting, distributing and selling of electricity in accordance with economic and social development policies and priorities of the Government.	• Member of the PSC • Provide a dedicated officer to coordinate the inventory exercise at national level • Provide technicians for the inventory at regional level • Provide logistics for project related activities
EEU	Government	Public utility enterprise. Ensures generation, transmitting, distributing and selling of electricity in accordance with economic and social development policies and priorities of the Government.	• Member of the PSC • Provide a dedicated officer to coordinate the inventory exercise at national level • Provide technicians for the inventory at regional level • Provide logistics for project related activities
Metals and Engineering Corporation (METEC)	Government	Transformer manufacturing company	• Member of the PSC • Participates in the inventory and provides technical details of the transformer management • Possibly supports the dechlorination process
Ministry of Health	Government	Focuses on national health issues	• Member of the PSC • Provides specialized knowledge on the effects of PCBs on human health • Participates in national awareness raising activities
Ministry of Justice	Government	Administers legislation, delivers justice services, and provides policy support and analysis on legal issues.	• Member of the PSC • Leads the legislation review
Laboratories at the ECEA and EEFRI	Government	Laboratory analysis	• Support PCB analysis (with appropriate technical support from the project)
Ethiopian Standard Authority	Government	Standard formulation, Training and Technical support, Disseminating standards, Conformity assessment procedures and Technical regulation for the customers.	• Supports inventory training • Supports the formulation of legislation
Ethiopian Revenue and Customs Authority (ERCA)	Government	Body responsible for collecting revenues from customs duties and domestic taxes. In addition to raising revenue, the ERCA	• Member of the PSC • Leads the national PCB monitoring network • Leads the tracking of imports and illegal exports of

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		responsible to protect the society from adverse effects of smuggling. It seizes and takes legal action on the people and vehicles involved in the act of smuggling while it facilitates the legitimate movement of goods and people across the border.	suspected PCB-containing equipment • Participates in the execution of the internal M&E of the project
Ministry of Industry	Government	Promotes and expands the development of industry by creating conducive enabling environment for the development of investment and technological capacity of the industry sector by rendering efficient support and services to the development investor.	• Member of the PSC • Supports the regulatory aspects of the project • Participates in the inventory
Ethiopian Airlines	Government	Potential owner of transformers	• Participates in the inventory and participates in transformer/PCB management
Cement factories (and other private PCB owners)	Private sector	Potential owner of transformers	• Participates in the inventory and participates in transformer/PCB management
Pesticide Action Network (PAN) Ethiopia	Public interest group	Supports activities: to eliminate hazardous pesticides, reduce dependence on pesticides, and promote ecologically sound alternatives to chemical pest control.	• Member of the PSC • Coordinates with partners regarding community input and awareness raising activities

iv. Mainstreaming gender:

No tangible direct gender considerations have been detected thus far, apart from direct exposure to PCBs in a work setting by staff of participating PCB equipment/waste owners. Women are generally at higher risks regarding POPs being distributed in the broader environment, specifically related to their bioaccumulation and transfer through breast milk. Due to their physiological features, women and children are more exposed to risks associated to POPs compared to adult men given the same doses of exposure. The risks associated to POPs exposure for pregnant women and children are also comparatively higher.

Usually, risk-based environmental standards and risk-based corrective actions, following a precautionary approach, are designed taking into account the highest risk for the most sensitive and exposed population categories; therefore, environmental and toxicological limits already take into account the specific issue of women and infants. Nevertheless, specific activities will be developed to encourage women to access the information related to the project implementation and POPs. Awareness raising materials specially designed for facilitating women's involvement and knowledge will be prepared, which will introduce the gender-differentiated impact of POPs exposure on human health, particularly reproductive health, with the overall aim of reducing the risk of exposure of women and infants given their specific sensitivity. For example, in order to raise public awareness, the project will target media such as radio and TV stations and programmes mostly addressed to women. Gender aspects will also be taken into consideration when implementing specific project activities related, for example, to adoption of risk-reduction counter-measures.

In addition, in the course of project implementation, compliance with UN policies on equal opportunities, GEF Policy on Gender Mainstreaming, and UNDP Gender Equality Strategy (2014-2017) will be maintained at each stage to ensure that the project supports women's capabilities and their enjoyment of rights, and women's equal and meaningful participation as actors, leaders, and decision-makers. Further issues may be identified during project implementation. In the course of the recruitment processes, the project will encourage the participation of women to ensure that they are represented at all levels of project development and implementation.

The project will also undertake a study on gender dimension on PCBs issues in Ethiopia which may, under guidance from the gender team of UNDP-Ethiopia or national gender team established under the project, cover the aspects of a proportion of female workers working within the main stakeholder facilities (EEP, EEU, and METEC) on various levels: as technicians dealing with electric equipment containing PCBs, for general safety and maintenance of these facilities, on the management level taking decisions over companies' PCB management plans, and on who will participate in capacity building under the project.

v. South-South and Triangular Cooperation (SSTrC):

South-South and triangular cooperation under this project will focus on promoting an exchange of knowledge, resources, and where possible technology between developing countries. Ethiopia will benefit from experiences gained in similar projects in Ghana, the Gambia, Rwanda, and Zambia (and Kenya if the Kenyan PCB project commences in the near future). National experts from these successful projects may be used as experts to transfer their knowledge and expertise to their Ethiopian counterparts.

Djibouti will also provide the port of exit for shipping the Ethiopian PCB materials for disposal, for example, in Europe. Djibouti has been a point of transit for other hazardous waste exports for disposal operations in the past.

The approaches agreed will be consistent with UNDP's reputation as a knowledge broker, capacity development supporter, and partnership facilitator through, inter alia, enabling developing countries to work together to find solutions to common development challenges.

V. FEASIBILITY

i. Cost efficiency and effectiveness:

In general, cost effectiveness will be ensured at each stage of the project by adoption of tender-based (quality for affordable costs) UNDP procurement procedures for all of the activities, including the selection of PCB management services and decontamination equipment rental/establishment based on the best quality/cost ratio.

UNDP has accumulated a significant experience on the procurement and testing of disposal services for POPs-contaminated materials. If carried out with local technologies/facilities, the disposal is usually preceded by extensive testing of the technology conducted on significant amount of POPs waste, to certify its compliance with Stockholm and Basel Convention rules and standards. In cases where instead the disposal services are carried out through shipment abroad for disposal, detailed technical specifications are prepared always envisaging the full range of services, from carrying out Basel Convention procedures for shipment, to packaging to final disposal and certification of waste destruction. This approach has always resulted in a very effective quality/cost ratio. UNDP also has unique experience in the pre-commercial testing of disposal technologies, through for instance the on-site testing conducted on technologies for the disposal of soil highly contaminated by PCDD/F in Vietnam, including the mechano-chemical technology.

ii. Risk Management:

As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office (CO). The UNDP CO will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Overall, the project's risk rating is considered as Medium.

SESP-related risks are accommodated within the broader risk framework, and are separately described in the SESP tool with proposed areas of attention/monitoring/follow-up actions for UNDP CO defined to guide the compliance process.

Table 3: Project risks

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
Delayed or incomplete PCB inventory due to the	Organizational	Delay I = 4	The project intends to address this risk by establishing strong supervisory	PMU MEFCC	N/A at this

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absence of coordination or technical and economic difficulties in carrying out sampling of dielectric oil		P = 2	mechanisms supported by TORs. A national inventory team will be formed and trained. The national inventory team will be complemented with regional teams. The composition of the national inventory team will include representatives of EEU, EEP, METC, MEFCC, and others as appropriate. These will then be assisted by the local regional teams. These teams will be appointed on a full-time basis during the whole duration of the inventory period.	UNDP UNITAR	stage
Development and adoption of legal framework delayed due to lack of interest and support from decision- and policy-makers	Organizational Political Regulatory	Incomplete achievement of GEB I = 3 P = 3	The National Stockholm Convention focal point has confirmed the strong interest of the country in the project, which is in line with the priorities regarding PCB and contaminated sites as set in the NIP. In terms of risk mitigation measures, the National Stockholm and Basel Convention focal points will be members of the PSC and will play key roles for coordinated actions at the national level between government, EEU, EEP, METEC, and other key stakeholders. The National Coordination Mechanism established during the NIP development, and which has the commitment of a wide range of governmental sectors, will be used as a basis for national coordination. Furthermore, the Government of Ethiopia, by ratifying several MEAs including the Stockholm Convention, by developing its NIP (and currently undertaking NIP updating) and having recently updated its national PCB inventory and action plan, and by formally applying for this project has illustrated strong support towards the sound management of chemicals and in particular POPs. MEFCC and parliamentarians from the environmental select committees will be engaged as early as possible. Specific awareness raising events will be organised and targeted at them. The project will aim to include PCB-specific provisions into the existing legislation where relevant and possible. This is usually more efficient and results in a faster endorsement process compared to the drafting and adoption of new regulations.	PMU MEFCC	N/A at this stage
Project resources are not sufficient to ensure the disposal or	Financial	Incomplete achievement of GEB	The project allocated enough grant and co-financing resources to dispose or decontaminate 150 tons of PCB-	PMU MEFCC	N/A at this stage

decontamination of all of the PCB-containing equipment and related wastes		I = 3 P = 2	containing equipment. Based on the updated PCB inventory, the exact quantities will then be estimated to verify that the allocated resources are adequate.	UNDP	
Delays or refusal of transit of PCBs for export through Djibouti due to national regulations	Political	Incomplete achievement of GEB I = 3 P = 2	Discussions have been held by the project team with Djibouti and the possibility of transboundary movement through Djibouti was confirmed; formal discussions will continue early in the project implementation phase.	PMU MEFCC	N/A at this stage
PCB-contaminated equipment not secured for disposal during the project	Environmental Organizational	Incomplete achievement of GEB I = 4 P = 2	Commitment with the main PCB owners has been reconfirmed during the PPG stage, including from EEP, EEU, and METEC, which have the largest collection of transformers in the country. They are willing to cooperate by proving the co-financing and technicians to support the inventory and other project activities.	PMU MEFCC	N/A at this stage
Chemical accidents or spillage of POPs-contaminated waste during sampling, transport, storage, or disposal	Environmental	Environmental damage I = 4 P = 1	Training in environmental best practices for each stage of the lifecycle of PCB management, i.e. safe handling, transportation, temporary storage, and disposal of PCBs, will be conducted and best practices, as per international standards, enforced during the implementation phase of the project.	PMU MEFCC UNDP	N/A at this stage
Exposure to PCBs of workers involved in the management of PCB-containing waste	Environmental Social	Health hazard I = 4 P = 1	Workers will receive practical training on the use of personal protective equipment (PPE) from the beginning of the project. All efforts will be made to ensure that workers are not exposed to PCB-related risks.	PMU MEFCC UNDP	N/A at this stage

iii. Social and environmental safeguards:

The project is a direct response to the need for the ESM of PCBs in Ethiopia to reduce harmful impacts on human health and support facilitated sustainable development by, inter alia, preventing further contamination of clean power equipment with PCBs, reducing the risk of contaminated sites and potential spillages of PCB-contaminated oil, and protecting the health of employees of PCB holder organizations in the private and public sector as well as neighboring population and global spread of these chlorinated wastes to other geographic areas.

This GEF project will build awareness on the links between POPs and public health (including occupational exposures), with a special focus on the health implications of exposure to PCB wastes for particularly vulnerable populations, such as female workers, pregnant women, and children who could live nearby these industrial areas.

The project will strengthen national and institutional capacities to control and manage PCB wastes streams that will result in a broader and sustained capability to work with other hazardous halogenated wastes. Regulatory improvements will be planned to improve the PCB control framework, support the PCB phase-out activities, and prepare the country to meet its obligations under the Stockholm Convention by 2025. The government and the private/public industrial sector will obtain the necessary skills and direct experience with hazardous waste

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management to be able to perform such operations in future on their own, but with application of internationally acceptable minimum operation standards to avoid human and environmental impacts.

The overall risk rating under the Social and Environmental Environmental Screening Procedure (SESP) is "Moderate" for this project, and EIA procedures will be prepared, and strong oversight and safety principles will be applied by the UNDP CO and UNITAR during the project implementation process. A through tendering process to select qualified sub-contractors with good track record and performance of similar contracts with UNDP or other GEF implementing agencies is strongly recommended.

It should be noted, however, that, at the same time, the overall risk rating related to the project's implementation to achieve the designed GEBs is based on a broader range risks including political, institutional, and financial, and inclusive of the SESP section on the potential impacts of the project on social and environmental systems.

An environmental assessment (EA) and environmental management plan (EMP) will be designed in the project document for all expected hazardous waste management operations. This will cover the design of PCB equipment draining procedures, needed infrastructure, and the sequencing of local works at PCB locations.

PCB waste materials will be transported through a tender for processing to certified hazardous waste facilities outside the country, mostly located in the EU. Operationally any future work will be undertaken by qualified, experienced service providers contracted by UNDP using specifications requiring current international standards and with substantive due diligence and independent oversight and supervision. All operations, once the project is approved by the GEF, will be undertaken using rigorous, but well established and documented international hazardous waste and dangerous goods management practices and procedures and standards, including those set out by Basel and Stockholm Conventions and GEF STAP guidelines, and internationally referenced OHS procedures for on-site workers. No direct social impacts are associated with this operation and public consultation in the local community will be provided for during the project's implementation.

For all components, capacity building and training programmes will ensure the provision of internationally available expertise and advisory support, and specifically to local personnel involved in direct work on project sites.

Due to the general objective of this project, which is to reduce environmental and health risks associated with PCB waste through the establishment of the ESM of PCBs, it is expected that environmental disputes or grievances will not arise during project implementation. In case the project will require operations or installation of equipment for the disposal/treatment of PCBs in Ethiopia, these will undergo the full procedure of EIAs as envisaged by the Government of Ethiopia's legislation, with the associated hearings of public and private stakeholders. In any case, environmental and social grievances will be reported to the GEF in the annual PIR.

iv. Sustainability and Scaling Up:

Sustaining: The project intends to provide a comprehensive solution to the issue of PCBs use in Ethiopia. Unless a greater amount of PCBs than estimated (150 t) are identified, it is assumed that only residual activities related to PCB disposal will remain in place after project completion. However, the country will still have the obligation to periodically report to the Stockholm Convention's Secretariat on the PCB inventory, and to progressively destroy all the PCBs found after project's completion.

Through developing official guidance on PCB management, establishment of a comprehensive PCB inventory database, training, and implementation and demonstration of PCB disposal technologies (where appropriate), the project will ensure that the governmental institutions and the private sector will be in possession of all of the technical capacity needed to comply with the requirements of the Stockholm Convention up to the 2025 deadline.

Furthermore, since the conceptual approach to PCB management (safety measures during maintenance/handling, storage, transportation, and disposal) can be similar to other hazardous waste, including any POPs residual chemicals such as pesticides, the country will have the required capacity at the governmental level to manage those streams using these case studies, inclusive of the practical knowledge related to transboundary movement of wastes for disposal in line with the Basel Convention.

Mainstreaming: The management of PCBs requires sophisticated scientific, technical, legal, and managerial competences in many fields, including sampling and laboratory determination of chlorinated organics, selection

and practical demonstration (before granting full procurement clearance) of the most suitable PCB-decontamination technologies, strategic and financial planning of disposal and clean-up operations, chemical risk assessment, waste classification, etc. All these competences, and the related lessons learned during project implementation, are the same competences needed to address broader issues in the field of hazardous waste, chemical management and POPs. The capacities built under the project will therefore represent an important resource enabling Ethiopian experts to take part in broader activities either in the country or as regional center of excellence.

Scale-up and Replication: As the project is expected to solve completely or almost completely the PCB issue in Ethiopia, scaling up and replication in this specific area are not expected to occur. However, if more than 150 t of PCBs are identified, the skills gained will be applied to a Phase 2 project. Furthermore, the capacity developed under the project will be useful to undertake similar activities in other POPs or hazardous waste related activities in Ethiopia, or to allow the Ethiopian PCB team to participate as regional experts in other PCB projects in the region. Any accumulated experience within this programme could at the same time be replicated in other GEF programmes if found useful.





VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): 1, 3, 9, 11, and 12.					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: 4,5,6, and 12.					
This project will be linked to the following output of the UNDP Strategic Plan: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**	**Assumptions**
Project Objective: This project aims at strengthening the capacity of national stakeholders to manage PCBs as well as to achieve PCBs elimination, as identified as a priority in the National Implementation Plan for Persistent Organic Pollutants for Ethiopia - a first Phase	National environmentally sound management (ESM) system of PCB chemicals and waste drafted and implemented by 2020	People and workers are currently exposed to the risk posed by PCB-containing equipment stored or in-use No PCB management legislation or regulations and appropriate capacity and cooperation from PCB equipment/waste owners unavailable No national PCB management plan prepared and comprehensively implemented No comprehensive ESM system is in place to address the national PCB situation, and power equipment is exposed to continuous cross-contamination	Comprehensive national PCB inventory is completed ESM guidance materials drafted and an initial training of PCB holders undertaken The risk for the population surrounding plant and storage facilities containing PCBs is minimized as a result of safety measures preventing PCB release in the environment	Existing storage facilities for transformers are assessed and upgraded to international standards to allow PCB removal/ decontamination operations The risk for the population surrounding plant and storage facilities containing PCBs is minimized through the sound disposal of at least 150 tons of PCB-contaminated equipment and waste	Identified PCB-contaminated equipment is under control and secured for disposal until technologies or service delivered by the project are available Handling of PCB equipment and disposal activities are carried out in an environmentally safe way without any harm to the environment and the health
	Amount of PCB equipment identified and listed in the national PCB inventory and included in the national PCB management plan	A systematic PCB inventory, including PCB identification and labelling is missing	6,000 pieces of equipment expected to be tested to verify their PCB content, out of which PCB-containing equipment is identified and labelled for future treatment or disposal, if applicable National PCB inventory database established and maintained to help with priority decision-making	10,000 pieces of equipment expected to be tested to verify their PCB content, if applicable PCB-containing equipment is identified and labelled for future treatment or disposal Measures to prevent release of PCBs in the environment are in place	Potential PCB owners are willing to facilitate sampling and analysis of their equipment The capacity of Ethiopia to carry out sampling and analysis of dielectric oil and waste for PCB quantification is developed and reliable enough to timely carry out sampling and analysis activities

	50 tons of pure PCBs and 100 tons of low-concentrated PCBs/related waste are safely managed and disposed of/decontaminated by the end of the project, thus reducing global and local environment from exposure to these hazardous wastes	No equipment/oil containing PCBs identified or sent abroad for disposal No PCBs disposal/ decontamination technology available in the country	Based on final inventory amounts, temporary storage locations identified and upgraded to meet international standards Pure PCB waste is prepared for export to HTI plants for final disposal, and PCB-contaminated oil is treated via rented or purchased dechlorination technology (if applicable) or also exported for disposal Appropriate EIA/SIA procedures for making the rented/procured technology operational are completed, and location to host the technology selected and confirmed (if applicable)	At least 150 tons of equipment containing PCB (in pure and contaminated forms) are treated or disposed of in compliance with Stockholm Convention and Basel Convention requirements Disposal/cleaning certificates obtained	Identified PCB-containing equipment and waste amount to at least 150 tons and is properly stored for treatment or disposal under the project The technology or service for the disposal of PCB equipment and waste (within the country or abroad) will be selected and procured/rented in a cost-effective manner to stay within the project's budget and timing constraints Disposal of 150 tons of PCB equipment can be completed within project and budget constraints
Outcome 1 Legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia strengthened	Legal framework for PCBs drafted and adopted Institutional capacity and arrangements for the management of PCBs reviewed, and gaps and overlaps identified and addressed through consultation and coordination processes	No PCB management legislation or regulations and appropriate capacity and cooperation from PCB equipment/waste owners unavailable Lack of coordination regarding PCB management	Comprehensive assessment of the national legal and institutional framework completed Technical assistance to the environmental authorities on the enforcement of the new or amended legislation and technical regulations related to PCBs delivered through specialized trainings and joint participation of project staff and government representatives Project management unit and PSC established and meeting regularly	New or amended legislation and regulations which includes specific PCB provisions adopted and disseminated to key national stakeholders Advisory support and required technical assistance in the implementation of the national legislation and regulations and guidance on PCBs delivered through continuous project support Technical assistance to the environmental authorities on the enforcement of the law and regulation related to PCBs delivered through joint participation of project staff and government representatives Institutions effectively coordinating implementation	A fruitful cooperation among project staff, government, and key stakeholders on technical, legal, and financial matters is ensured so that the new or amended regulatory package is implementable, enforceable, and sustainable

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				of the project	
Outcome 2 National capacity for PCB management strengthened throughout the lifecycle	One consolidated country-wide PCB inventory updated and completed, with appropriate data including sampling dates and analysis results of phased-out and in-use equipment	An incomplete inventory report developed by MEFCC without analytical data and missing equipment from some storage sites Central consolidated PCB database to track inventory and PCB disposal process is not available	Inventory sampling activity plan for 10,000 equipment is well underway at mid-term point. Services for the sampling and analysis of this equipment and establishment of PCB inventory procured, if applicable Sampling and analysis of 6,000 pieces of PCB-suspected equipment carried out, if applicable PCB-containing equipment labelled and entered in the national database	10,000 equipment oil samples have been taken and analysed for quantifying PCB concentration, if applicable PCB inventory database established and made available to authorities and PCB holders through a dedicated website with access policies	Owners of PCB-contaminated equipment and waste will facilitate the access to their facilities and the sampling operations Proper chain of custody and quality control procedures is established to ensure the reliability of sampling and analysis operations
	National PCB management plan is drafted and approved	No national PCB management plan developed or available to guide action on addressing PCB matters in the country No industry-wide coordinated action is taken to address the ESM of PCBs	National PCB management plan drafted First update of the National PCB management plan at midterm based on inventory data Facility-level PCB management plans drafted where appropriate At least 10 contaminated sites management plans developed	National PCB management plan reviewed and adopted Second update of the National PCB Management Plan based on updated inventory data	Government-led communication strategy on national PCB-related effort (legislation, technical regulations, PCB equipment inventory and phase-out/ disposal/decontamination) is in place and implemented to ensure better support from PCB equipment/waste owners and other stakeholders A fruitful cooperation among project staff, government, and key stakeholders on technical, legal, and financial matter is ensured so that the PCB management plan is implementable and sustainable
	Number of operators/technical staff in the electric sector and in MEFCC trained on and confident in practically applying the ESM system for PCBs Number of technical and procedural guidance documents compliant with Stockholm	No or insufficient technical level guidance materials exist on ESM for PCB management No training on ESM of PCBs issued delivered to operators/technical staff in the electric sector	Guidance drafted for sampling of online and offline equipment, operation and maintenance of PCB-contaminated equipment, identification and labelling procedures, handling, transportation,	Guidance for sampling of online and offline equipment, operation and maintenance of PCB-contaminated equipment, identification and labelling procedures, handling, transportation, temporary storage, and	Prospects for adoption of technical guidance are high, and related consultations initiated and ongoing Equipment operators willing to attend training and apply knowledge practically in joint

	Convention and national regulations completed and endorsed	countrywide Lack of awareness and technical knowledge about POPs in general and PCB issues in particular	temporary storage, and disposal discussed in 5 dedicated workshops Using the guidance material, at least 8 training sessions covering 80 operators/technical staff of the electric sector implemented Procedural and guidance documents drafted for environmental authorities on Stockholm and Basel Conventions, and BAT and BEP for PCB treatment and disposal operations and discussed in a dedicated workshop 5 training sessions covering at least 25 officers from the relevant ministries and research institutions carried out Training on chemical (PCB) response procedures and mechanisms undertaken and piloted at one site	disposal adopted 25 training sessions covering at least 340 equipment operators (engineers and technicians) in the electric power sector Procedural and guidance documents for environmental authorities on Stockholm and Basel Conventions, and BAT and BEP for PCB treatment and disposal operations adopted 7 training sessions for at least 50 officers from the relevant ministries and institutions carried out	work with the project Trainers have extensive experience in the field of PCB management
	National PCB tracking system developed and operational	No effective mechanism in place to prevent illegal importation of equipment likely to contain PCBs	Terms of reference for national PCB tracking system to prevent illegal importation of equipment likely to contain PCBs operational	Periodic technical visits to the PCB holders undertaken and technical support and advice provided to purchase PCB-free transformers, capacitors, and related equipment	Owners of transformers and capacitors will facilitate access to their facilities and records
	Awareness raising strategy developed and implemented, which targets government, public and private sector, civil society, local communities and community leaders Gender dimension study in the context of PCB issues in Ethiopia completed and strategies for better gender mainstreaming in	Low levels of awareness on the adverse effects of POPs, especially PCBs, leading to mismanagement of PCB-containing equipment No gender dimension study carried out on POPs in Ethiopia	An awareness raising strategy developed, and awareness materials such as brochures, project cards, meeting banners and posters, for different target groups, developed and disseminated Gender dimension study completed	Awareness materials disseminated at different levels: communities, technicians, and policy-makers Media briefing events both at mid-level managers (facility managers) and high-level (ministers, members of parliament and chief	Trainings and dissemination of awareness raising materials considered as key to strengthen the ESM of PCBs at national level

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	POPs-related activities identified		Dissemination of project objectives and midterm results through establishment of a website, broadcasting, and workshops, and enhancement of gender related issues	executives) planned and executed Local communities have access to awareness raising materials in their own local languages and trainings for the community leaders are organised Dissemination of project objectives and midterm results through establishment of a website, broadcasting, and workshops, and enhancement of gender related issues	
Outcome 3 ESM of PCBs liquids and equipment in use or out of service implemented	Temporary storage facilities are upgraded and monitored under the project for the safe storage of PCB equipment/oils/waste pending final disposal or decontamination procedures	Storage facilities available in industrial sites need checking and upgrading and, in some cases, are contaminated by PCBs	Storage facilities for the temporary storage of PCB-contaminated equipment are identified Upgrading of safety and emergency response in selected storage facilities PPE equipment for personnel is available to ensure safe operations Monitoring of quality of storage over time is ensured by enforcement authorities	At least 2 storage facilities have been upgraded to ensure safe storage of PCB-contaminated equipment and waste in fulfilment of national and international rules on PCBs	Storage facilities needs only limited intervention to ensure the increase of their safety up to the required standards Storage facilities can be upgraded and permitted within planned budget and timeframe
	Documentary and direct evidence that environmentally sound technologies or services for PCBs disposal/dechlorination have been identified, assessed, and procured	No PCB disposal technology available in the country to address pure PCB oils/waste No PCB dechlorination technology is available in the country to address cross-contaminated PCB oils No PCB-contaminated soil remediation technology is available in the country	Identification and technical-economic feasibility analysis of disposal options based on the amount of pure and low-concentration PCBs identified Drafting of TORs for the procurement of PCBs disposal/decontamination service and equipment EIA process regarding decontamination plants carried out to enable	PCB dechlorination technology is rented/installed in the country to treat low-concentrated PCB oils, if applicable and appropriate	UNDP and UNITAR experts and national stakeholders establish cooperation so that the technical specification and identification of proper technologies are appropriately suited to the specific country situation and needs Technologies for the safe disposal of waste with high PCB content (up to 60%) and for the treatment of equipment with low PCB content (up to a few thousand ppm) are

			technology to operate locally, if applicable		commercially available and vendors of these technologies will submit bids to UNDP tenders
	Amount of equipment or waste containing or contaminated by PCB disposed in an environmentally sound manner	No equipment containing PCBs or PCB-contaminated soil disposed of	For pure PCBs, existing qualified service providers informed and invited and tender for hazardous waste handling If applicable, the selected PCB decontamination technologies demonstrated in action as part of procurement activity for their reliability, environmental performance, and compliance with national regulation, Stockholm and Basel Conventions' requirements Associated sub-contracts for export of pure PCB waste and decontamination of low-concentrated in place (if applicable), and pre-bid conferences for interested bidders held to improve quality of received bids	Destruction/treatment of 150 tons of PCB-contaminated equipment in progress with disposal certificates obtained	UNDP and UNITAR use experience from other projects to ensure the effectiveness and reliability of technology's choice for both pure/high-concentrated and low-concentrated wastes Selected vendors already familiar with the requirements and activities related to testing of their technologies PCB-contaminated equipment and waste are identified, safely stored, and secured to their disposal under the project No PCB waste transit limitations are in place to block waste export operations EIA/SIA assessments are completed to allow PCB dechlorination technology to be put into operation for low-concentrated PCB-containing oils, if applicable and economically feasible
Outcome 4 Monitoring, evaluation and replication ensured	Documentary evidence that the project's results sustained and replicated through proper M&E and knowledge management actions	N/A	Inception activities carried out, project management structure implemented, knowledge management system including project website established (to be completed in the first year of project implementation)		All the relevant stakeholders well aware of GEF/UNDP rules as well as national obligations under the Stockholm Convention, and willing to cooperate in the timely establishment of project management structures
		N/A	Project reporting and planning established and implemented	Project reporting and planning continued until project end	Project reporting and planning mechanisms and templates communicated in a timely manner and agreed with project management staff at all

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					levels
		N/A	Midterm evaluation and auditing activities carried out	Terminal and auditing activities carried out; terminal reporting completed and submitted to Government of Ethiopia, UNDP, and GEF	Project stakeholders actively cooperating in all evaluation and auditing activities Evaluation and auditing are carried out in an independent and professional way, with the purpose to enhance project activities and generate recommendations for project success and sustainability after project closure

VII. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the GEF M&E policy and other relevant GEF policies.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.

M&E Oversight and monitoring responsibilities:

Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Project Manager will develop annual work plans based on the multi-year work plan included in Annex A, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy, etc.) occur on a regular basis.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

Project Implementing Partner: The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems. The Project Implementing Partner will be supported by the Responsible Party (UNITAR).

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

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The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

Audit: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.[1]

Additional GEF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation;
b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;
f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
g) Plan and schedule Project Board meetings and finalize the first-year annual work plan.

The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and

[1] See guidance here: https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx

participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

GEF Focal Area Tracking Tools: The following GEF Tracking Tool(s) will be used to monitor global environmental benefit results:

The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted in Annex D to this project document – will be updated by the Project Manager/Team and shared with *the* mid-term review consultants and terminal evaluation consultants (not the evaluation consultants hired to undertake the *MTR* or the TE) before the required review/evaluation missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.

Independent Mid-term Review (MTR): An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center. As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

Final Report: The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.





Mandatory GEF M&E Requirements and M&E Budget:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[2] (US$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	USD 7,100	USD 2,000	Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Manager	Per year: USD 500 (USD 2,000 for 4 years)	USD 50,000	Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	Per year: USD 4,000 (USD 16,000 for 4 years)	None	Annually or other frequency as per UNDP Audit policies
Lessons learned and knowledge generation	Project Manager	None	USD 100,000	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None	USD 50,000	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None for time of project manager, and UNDP CO	None	
Project Board meetings	Project Board UNDP Country Office Project Manager	USD 3,000	USD 2,000	Bi-annually
Supervision missions	UNDP Country Office	None[3]	None	Annually
Oversight missions	UNDP-GEF team	None[3]	None	Troubleshooting as needed
Knowledge management as outlined in Outcome 4	Project Manager	USD 15,900	USD 30,000	On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	None	To be determined.
Mid-term GEF Tracking Tool to be updated	Project Manager	USD 8,000	USD 10,000	Before mid-term review mission takes place.

[2] Excluding project team staff time and UNDP staff time and travel expenses.
[3] The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[2] (US$)		Time frame
		GEF grant	Co-financing	
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 20,000	USD 20,000	Between 2nd and 3rd PIR.
Terminal GEF Tracking Tool to be updated	Project Manager	USD 8,000	USD 20,000	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 30,000	USD 66,000	At least three months before operational closure
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		USD 110,000	USD 350,000	

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism: The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Ethiopia, and the Country Programme.

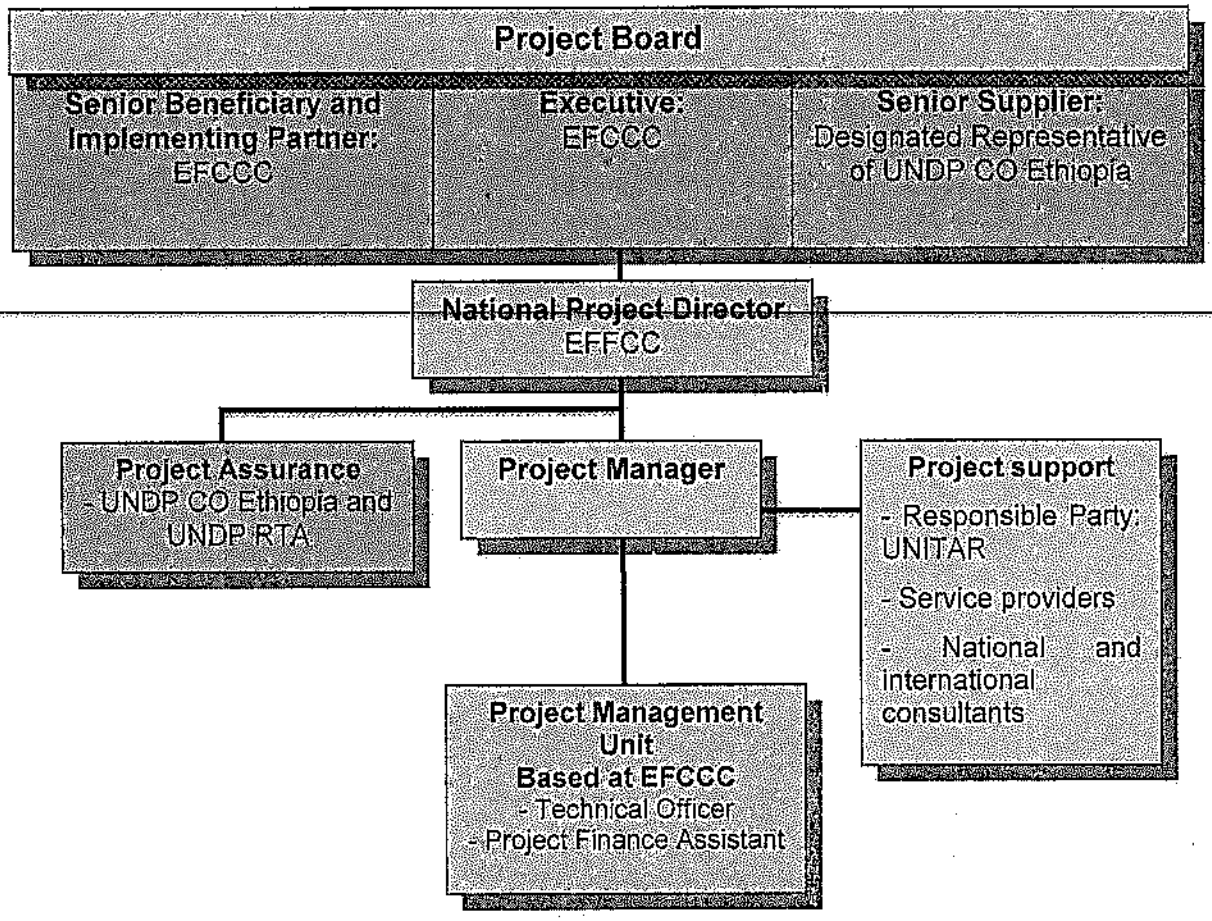
The **Implementing Partner** for this project is the Ministry of Environment, Forest and Climate Change. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.

The Implementing Partner is responsible for:

- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

The project organisation structure is as follows on the next page:

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The **Project Board** (also call the Project Steering Committee (PSC)) is responsible for making management decisions, by consensus, when guidance is required by the Project Manager, including recommendations for UNDP/Executing Partners' approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, the PSC's decisions should be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency, and effective international competition. In case consensus cannot be reached within the Project Board, the final decision shall rest with the EFCCC & UNDP Programme Manager. The Project Board is comprised of the following individuals:

- EFCCC: State misnter - Chair
- UNDP: Co- Chair
- MoF: legal reprasanative;
- EEP: legal representative;
- EEU: legal representative;
- METEC: legal representative;
- UNITAR: Programme officer.
- EFCCC: PMU scetratiart

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;

- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board must include the following roles:

Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. The Executive is:

The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and suppler.

Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organise and chair Project Board meetings.

Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Suppler is:

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. The Senior Beneficiary is:

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

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Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

The **Project Manager** will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the PSC. The Project Manager's function will end when the final project terminal evaluation report and other documentation required by the GEF and UNDP have been completed and submitted to UNDP (including operational closure of the project). UNDP will hire the Project Manager.

Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the GEF PIR and submit the final report to the Project Board;
- Based on the GEF PIR and the Project Board review, prepare the AWP for the following year.
- Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board;

As a senior supplier, UNDP also has the role of project quality assurance. This role will be exercised by the UNDP Programme Officer responsible for the project, based in the UNDP CO, and an International Technical Specialist, funded by the project. Additional quality assurance will be provided by the UNDP Regional Technical Advisor as needed.

Governance role for project target groups:

Both the Project Management Unit (PMU) (which is established at MEFCC) and the PSC will implement mechanisms to ensure ongoing stakeholder participation and effectiveness with the commencement of the project by conducting regular stakeholder meetings, issuing a regular project electronic newsletter, conducting feedback surveys, implementing strong project management practices, and having close involvement with UNDP CO as the GEF implementing agency.

Responsible Party:

UNITAR will be a Responsible Party for this project.

An autonomous UN body established in 1963, the United Nations Institute for Training and Research (UNITAR) is a training arm of the United Nations System, and has the mandate to enhance the effectiveness of the UN through diplomatic training, and to increase the impact of national actions through public awareness-raising, education and training of public policy officials.

UNITAR provides training and capacity development activities to assist mainly developing countries with special attention to Least Developed Countries (LDCs), Small Island Developing States (SIDS) and other groups and communities who are most vulnerable, including those in conflict situations. The Institute covers topics in the broad areas of supporting capacity for the 2030 Agenda, strengthening multilateralism, advancing environmental sustainability and green development, improving resilience and humanitarian assistance, promoting sustainable peace, and promoting economic development and social inclusion. It also conducts research on innovative learning approaches, methods, and tools, as well as applied research to address critical issues, such as disaster risk reduction and humanitarian emergencies.

UNITAR's Chemicals and Waste Management Programme (CWM) provides support to governments and stakeholders to strengthen their institutional, technical, and legal infrastructure and capacities for sound management of chemicals. Project activities serve to implement international agreements such as the Strategic Approach to International Chemicals Management (SAICM), the Basel, Rotterdam and Stockholm Conventions, and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). These aim to protect human health and the environment, contributing to the Agenda for Sustainable Development. UNITAR's capacity building activities support a country-driven and integrated approach, contributing to the achievement of the 2020 goal to achieve the sound management of chemicals, as adopted at the World Summit on Sustainable Development (WSSD) in 2002.

UNDP Direct Project Services as requested by Government:

The UNDP, as GEF Agency for this project, will provide project management cycle services for the project as defined by the GEF Council. In addition, the Government of Ethiopia may request UNDP direct services for specific purposes, according to its policies and convenience. The UNDP and Government of Ethiopia acknowledge and agree that those services are not mandatory, and will be provided only upon Government request. If requested, the services would follow the UNDP policies on the recovery of direct costs. These services (and their costs) are specified in the Letter of Agreement (Annex K). As is determined by the GEF Council requirements, these service costs will be assigned as Project Management Cost and duly identified in the project budget as Direct Project Costs. Eligible Direct Project Costs should not be charged as a flat percentage. They should be calculated on the basis of estimated actual or transaction based costs and should be charged to the direct project costs account codes: "64397- Services to projects – CO staff" and "74596 - Services to projects COE for CO".

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[4] and the GEF policy on public involvement.[5]

[4] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

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Project management:

The project office will be established at MEFCC, which is located at Arat Killo, Behind Tourist Hotel, Addis Ababa, Ethiopia, P.O. Box: 12760. The project is a result of a joint collaboration between the Government of Ethiopia, UNDP, and UNITAR. Establishing the PMU at MEFCC will facilitate the coordination with other governmental and nongovernmental organizations in Ethiopia and UNDP and UNITAR staff, as well as facilitate the exchange of information with GEF projects implemented by other agencies.

Grants will have to follow the Micro-Capital Grants policy.

IX. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is USD 10,340,000. This is financed through a GEF grant of USD 1,990,000 and USD 8,350,000 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only, where applicable.

Parallel co-financing: The actual realization of project co-financing will be monitored during the mid-term review and terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Co-financing source	Co-financing type	Co-financing amount	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Ministry of Environment, Forest and Climate Change	In-kind	USD 1,400,000	Office space, staff participating in project activities	Difficulties related to the accounting of in-kind support	Accounting mechanisms and rules will be clearly established at inception
Ethiopian Electric Power (EEP)	Cash	USD 1,250,000	Capital investment in replacement of the equipment, expenditures associated with inventory updating and removal, storage, and re-installation of equipment, and maintenance of the equipment throughout the project duration	Coordination issues may arise Investment may be subjected to the sustained financial capacity of the enterprise	Coordination ensured through participation of EEP in PSC EEP provided assurances that no change on the proposed investments are expected
Ethiopian Electric Utility (EEU)	Cash (USD 3,450,000) and In-kind (USD 1,000,000)	USD 4,450,000	Capital investment in replacement of the equipment; rehabilitation of all workshop repair and storage facilities; inventory of infrastructure and fixed asset within EEU; expenditures associated with removal, storage, and re-installation of new transformers; and maintenance of the equipment throughout project duration	Coordination issues may arise Investment may be subjected to the sustained financial capacity of the enterprise	Coordination ensured through participation of EEU in PSC EEU provided assurances that no change on the proposed investments are expected
METEC	Cash	USD 1,000,000	Introducing best practices	Coordination	Coordination

[5] See https://www.thegef.org/gef/policies_guidelines

			in operations such as pre-screening of all equipment and oil due for refurbishment that is suspected to contain PCBs including introducing labeling procedures. Internal awareness will be created focusing on the health and environmental effects of PCBs	issues may arise Investment may be subjected to the sustained financial capacity of the enterprise	ensured through participation of METEC in PSC METEC provided assurances that no change on the proposed investments are expected
UNDP	Cash	USD 150,000	Project management	Difficulties in accessing TRAC resources	TRAC resources have been earmarked in advance of project inception
UNITAR	In-kind	USD 100,000	Technical support & support to project management	Difficulties related to the accounting of in-kind support	Accounting mechanisms and rules will be confirmed prior to project inception
Total	**Cash and In-kind**	**USD 8,350,000**			

Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team as these are considered major amendments by the GEF:

a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more;
b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

Refund to Donor: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities

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managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file[6].

Financial completion: The project will be financially closed when the following conditions have been met:

a) The project is operationally completed or has been cancelled;
b) The Implementing Partner has reported all financial transactions to UNDP;
c) UNDP has closed the accounts for the project;
d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

[6] See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

X. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas Proposal or Award ID:	00103765	Atlas Primary Output Project ID:	00105643
Atlas Proposal or Award Title:	PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1		
Atlas Business Unit	ETH10		
Atlas Primary Output Project Title	PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1		
UNDP-GEF PIMS No.	5861		
Implementing Partner	MEFCC		

GEF Component/Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	*See Budget Note:*
OUTCOME 1: *Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia*	**MEFCC**	**62000**	**GEF**	71300	Local Consultants	17,500	17,500	3,500	3,500	42,000	*1*
				71600	Travel	5,000	5,000	2,500	2,500	15,000	*2*
				72100	Contractual Services-Companies	7,500	7,500	2,500	2,500	20,000	*3*
				75700	Training, Workshops and Confer	18,000	17,500	7,500	7,500	50,500	*4*
				72300	Materials & Goods	4,000	1,000	1,000	1,000	7,000	*5*
				72600	Grants	15,000	10,000	7,500	5,000	37,500	*6*
					sub-total GEF	**67,000**	**58,500**	**24,500**	**22,000**	**172,000**	
					Total Outcome 1	**67,000**	**58,500**	**24,500**	**22,000**	**172,000**	
OUTCOME 2: *Review and strengthening of national capacity for PCB management throughout the lifecycle*	**MEFCC**	**62000**	**GEF**	71300	Local Consultants	20,000	20,000	2,000	2,000	44,000	*7*
				72100	Contractual Services-Companies	50,000	50,000	4,000	4,000	108,000	*8*
				71600	Travel	26,500	26,500	2,500	2,500	58,000	*9*
				75700	Training, Workshops and Confer	19,000	4,000	4,000	4,000	31,000	*10*

COMPONENT/				72300	Materials & Goods	192,500	-	-	-	192,500	11
				72600	Grants	45,000	40,000	14,000	14,000	113,000	12
					sub-total GEF	**353,000**	**140,500**	**26,500**	**26,500**	**546,500**	
					Total Outcome 2	**353,000**	**140,500**	**26,500**	**26,500**	**546,500**	
OUTCOME 3:	**MEFCC**	**62000**	**GEF**	71300	Local Consultants	-	-	17,500	17,500	35,000	13
				72100	Contractual Services-Companies	-	-	27,500	760,000	787,500	14
ESM of PCBs liquids and equipment in use or out of service				71600	Travel	-	-	5,000	5,000	10,000	15
				75700	Training, Workshops and Confer	-	-	13,500	5,500	19,000	16
				72300	Materials & Goods	-	-	5,000	5,000	10,000	17
COMPONENT/				72600	Grants	15,000	25,000	35,000	25,000	100,000	18
					sub-total GEF	**15,000**	**25,000**	**103,500**	**818,000**	**961,500**	
					Total Outcome 3	**15,000**	**25,000**	**103,500**	**818,000**	**961,500**	
OUTCOME 4:	**MEFCC**	**62000**	**GEF**	71300	Local Consultants	4,475	4,475	4,475	4,475	17,900	19
				71400	Contractual Services - Individ	-	15,500	-	25,500	41,000	20
KM and M&E				71600	Travel	3,000	11,500	3,000	11,500	29,000	21
				72100	Contractual Services-Companies	-	2,500	-	2,500	5,000	22
				74100	Professional services - Audit	4,000	4,000	4,000	4,000	16,000	23
				75700	Training, Workshops and Confer	7,100	-	-	-	7,100	24
				72600	Grants	3,000	3,000	4,000	4,000	14,000	25
					sub-total GEF	**21,575**	**40,975**	**15,475**	**51,975**	**130,000**	
					Total Outcome 4	**21,575**	**40,975**	**15,475**	**51,975**	**130,000**	
Project management unit	**MEFCC (except 74596/64397 – UNDP)**	**62000**	**GEF**	71200	International Consultants	-	-	-	-	-	
				71300	Local Consultants	26,000	34,000	34,000	34,000	128,000	26
				72200	Equipment and	6,000	1,000	1,000	1,000	1,000	27

					Furniture						
				72400	Communications (phone, fax, internet)	500	500	500	500	500	28
				72500	Supplies	5,000	2,000	2,000	2,000	11,000	29
				74596/64397	Direct Project Costs	7,500	7,500	7,500	7,500	30,000	30
					sub-total GEF	**45,000**	**45,000**	**45,000**	**45,000**	**180,000**	
					Total Project Management	**45,000**	**45,000**	**45,000**	**45,000**	**180,000**	
					SUB-TOTAL GEF	**501,575**	**309,975**	**214,975**	**963,475**	**1,990,000**	
					PROJECT TOTAL	**501,575**	**309,975**	**214,975**	**963,475**	**1,990,000**	

Summary of Funds:

	Amount Year1	Amount Year 2	Amount Year 3	Amount Year 4	Total
GEF	501,575	309,975	214,975	963,475	1,990,000
UNDP (cash)	37,500	37,500	37,500	37,500	150,000
MEFCC (in-kind)	350,000	350,000	350,000	350,000	1,400,000
EEP (cash and in-kind)	312,500	312,500	312,500	312,500	1,250,000
EEU (cash and in-kind)	1,112,500	1,112,500	1,112,500	1,112,500	4,450,000
METEC (cash and in-kind)	250,000	250,000	250,000	250,000	1,000,000
UNITAR (in-kind)	25,000	25,000	25,000	25,000	100,000
TOTAL	2,589,075	2,397,475	2,302,475	3,050,975	10,340,000

Budget Notes

1 1 NTC (National Technical Coordinator) - full time; 1 NAA (National Administrative Assistant) - part time; 1 NTO (National Technical Officer) - full time

2 Local travel: 1 NTC and 1 NTO

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3	Assessment of regulatory impact; advertisements of legal notices; printing of PCB management guidelines; translation
4	Local meetings: 5 Project Steering Committee (PSC) meetings; 4 meetings with legislators; 2 trainings/meetings of national PCB surveillance network; 4 trainings/meetings on development of PCB management guidelines, 4 training/meetings on chemical response procedures and mechanisms
5	3 computers, 3 cameras, 1 printer
6	In accordance with the UN to UN Agency Contribution Agreement
7	1 NTC - full time; 1 NAA - part time; 1 NTO - full time; local inventory teams
8	1,000 lab analyses of oil samples; printing of national PCB management plan; printing of technical guidelines on operation and maintenance of PCB-contaminated equipment including identification and labelling procedures, handling, transportation, temporary storage, and disposal; printing of awareness raising materials; database development; translation
9	Local travel: 1 NTC, 1 NTO, and inventory teams
10	Local meetings: 6 PSC meetings; 8 trainings on PCB inventory, feasibility study, national PCB management plan; 2 meetings of national PCB surveillance committee; 4 meetings on development of PCB management guidelines, 4 meetings on development of awareness raising strategy
11	10,000 PCB field test kits (180,000 USD); personal protective equipment PPE (2,500 USD); Sampling materials (10,000 USD)
12	In accordance with the UN to UN Agency Contribution Agreement
13	1 NTC - full time; 1 NAA - part time; 1 NTO - full time
14	EIA for temporary storage (10,000 USD); Establishment of temporary storage (10,000 USD); PCB collection & transportation (17,500 USD); PCB disposal (750,000 USD). Total: USD 787,500.
15	Local travel: 1 NTC and 1 NTO
16	Local meetings: 5 PSC meetings; 8 trainings on operation and maintenance of PCB-contaminated equipment, identification and labelling procedures, handling, transportation, temporary storage, and disposal
17	Materials for temporary storage; packaging and containers; equipment rental
18	In accordance with the UN to UN Agency Contribution Agreement
19	1 NTC - part time; 1 NAA - part time; 1 NTO - part time to support knowledge management and MTE and TE; 1 national consultant for 1000 US to support the MTE and TE
20	MTE and TE, each: 5 work days in each country = 20 + 20 days report writing (700 USD/day) = 28,000 USD
21	MTE and TE each: 3,000 USD for airfare and 1,500 USD in DSA (9,000 USD total); Travel to 1 SC COP and 1 PCB meeting: 1 NTC and 1 NTO (2,000 USD for airfare and 1,500 USD in DSA (14,000 USD total); Travel for experience sharing: 1 NTC and 1 NTO (1,500 USD for airfare and 1,500 USD in DSA (6,000 USD total)
22	Website development and maintenance; printing of reports; translation
23	Estimated audit costs
24	1 Inception workshop
25	In accordance with the UN to UN Agency Contribution Agreement
26	1 NTC - full time; 1 NAA - part time; 1 NTO - full time

27	Equipment and furniture for the project team
28	Communication of the project team
29	Supplies for the project team
30	Direct project costs for project implementation, see details including in Annexes to the ProDoc. Budget line "Direct Project Costs" will be utilized to cover the costs of UNDP services on procurement, recruitment, etc. Direct project costs will be charged according to GEF rules on DPCs. Please see Annex K. Direct project cost – GOE, Direct project cost – staff: Direct Project Costs (DPC) are the costs of administrative services (such as those related to human resources, procurement, finance, and other functions) provided by UNDP in relation to the project. Direct project costs will be charged based on the UNDP Universal Pricelist (UPL) or the actual corresponding service cost, in line with GEF rules on DPCs. The amounts indicated here are estimations, however as part of annual project operational planning the Direct Project Costs would be defined and the amount included in the yearly budgets. The account 64397 can only be used for operational cost per transaction; it is not a flat fee;

XI. LEGAL CONTEXT

The project is a national implementation modality (NIM) project, in line with the Standard Basic Assistance Agreement (SBAA, 26 February 1981) between the UNDP and the Government of Ethiopia, the United Nations Development Assistance Framework (UNDAF) 2016-2020 and the Country Programme Document (CPD) 2017-2021.

Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner", as such term is defined and used in the CPAP and this document.

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via

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http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document".

XII. RISK MANAGEMENT

Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

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

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.

Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XIII. MANDATORY ANNEXES

A. Multi-year Workplan
B. Monitoring Plan
C. Evaluation Plan
D. GEF Tracking Tool (s) at baseline (please see separate tool submitted in tabular format).
E. Terms of Reference for Project Board, Project Manager, Chief Technical Advisor and other positions as appropriate
F. UNDP Social and Environmental and Social Screening Template (SESP) – please see separate submission.
G. Environmental and Social Management Plan (ESMP) for moderate and high-risk projects only – not required.
H. UNDP Project Quality Assurance Report – will be completed by the launch of the project.
I. UNDP Risk Log – see Table 3 pp. 23-25.
J. Results of the capacity assessment of the project implementing partner and HACT micro assessment please see separate submission.
K. Additional agreements (LOA for DPC) (as a separate document)

Annex A - Multi Year Work Plan:

Expected Outcomes	Planned Activities/Outputs	Responsible Party	Year 1				Year 2				Year 3				Year 4			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1.1 Legal framework for PCBs adopted and technical capacity strengthened to support the National Implementation of the Stockholm Convention	Activity 1.1 Regulatory framework drafted which includes specific PCB provisions and is proposed for adoption and disseminated to key national stakeholders	MEFFC UNITAR	X	X	X	X	X	X	X	X								
	Activity 1.2 Enforcement of PCB legal framework within key PCB management sectors, including government administration, PCB holders and involved stakeholders	MEFFC UNITAR									X	X	X	X	X	X	X	X
Outcome 2.1 Improved collection of data, information and monitoring of PCBs, which supports sound decision making and planning for ESM of PCBs	Activity 2.1.1 National PCB database established and PCB management plans and tracking systems operationalized at the national level	MEFFC UNITAR	X	X	X	X	X	X	X	X								
	Activity 2.1.2 Training of relevant Ministries, National Project Committee, industry, and project staff on new legal provisions, key steps on PCB management, and designing a sound PCB management plan	MEFFC UNITAR	X	X	X	X	X	X	X	X	X							
	Activity 2.1.3 Identify contaminated sites and develop management plans for at least 10 sites	MEFFC UNITAR								X	X	X						
Outcome 2.2 Awareness on the adverse health and environmental effects associated with PCBs raised, leading to better understanding of the problem and protection of population and the environment	Activity 2.2.1 Customized awareness raising information materials and strategy designed on the threats posed by PCBs	MEFFC UNITAR		X	X	X	X											
	Activity 2.2.2 National PCB awareness raising strategy implemented, which includes Government, public and private sector, civil society, local communities and community leaders	MEFFC UNITAR			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Outcome 3.1 Sound management and disposal of PCBs reduce the risk of contamination in the population and the environment	Activity 3.1.1 50 tons of pure PCBs and 100 tons PCB-contaminated oil drained, collected, temporary stored in national storage hubs and disposed of abroad	MEFFC UNITAR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Outcome 4.1 Project results sustained and replicated	Activity 4.1.1 Gender Assessment conducted, M&E and adaptive management applied to project in response to needs, and evaluation findings and lessons learned extracted	MEFFC UNITAR	X	X	X					X								X

Outcome 4.2 Lessons learned and best practices are captured, published and disseminated at national, regional and global level	Activity 4.2.1 Project website established for engagement, sharing good practices, guidance/tools and experiences	MEFFC UNITAR		X															
	Activity 4.2.2 Yearly lessons-learned report/publication prepared and disseminated	MEFFC UNITAR				X				X				X					X
	Activity 4.2.3 End of project publication prepared and disseminated	MEFFC UNITAR																X	X

Annex B - Monitoring Plan: The Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project objective from the results framework: This project aims at strengthening the capacity of national stakeholders to manage PCBs as well as to achieve PCBs elimination, as identified as a priority in the National Implementation Plan for Persistent Organic Pollutants for Ethiopia - a first Phase	**Indicator 1:** National ESM system of PCBs and wastes drafted, and implemented by 2020	PCB management framework developed, adopted, and implemented Skills and knowledge exist on ESM of PCBs in the private/public sectors owning electric equipment	• PSC • UNDP CO reports • Workshop reports • Published legislative updates	• Annually • Reported in DO tab of the GEF PIR	• MEFCC • UNDP CO • UNITAR • Project office • Project consultants	• Project progress reports/PIRs • Consultant reports	Identified PCB-contaminated equipment are under control and secured for disposal until technologies or service delivered by the project are available Handling of PCB-containing equipment and disposal activities are carried out in an environmentally safe manner without harm to the environment and the health Potential PCB owners are willing to facilitate sampling and analysis of their equipment The capacity of the Ethiopia to carry out sampling and analysis of dielectric oil and waste for PCB quantification is large and reliable enough to timely carry out sampling and analysis activities
	Indicator 2: 50 tons of pure PCBs and 100 tons of low-concentrated PCBs/related waste are safely managed and disposed of/decontaminated by the end of the project, thus	National PCB inventory updated and database is operational to monitor related equipment Sub-contracts placed for pure PCB disposal and decontamination of low	• Reports from private sector/laboratory reports • PCB database • Project progress report/UNDP CO reports	• Annually/MTR/TE reports • Reported in DO tab of the GEF PIR	• MEFCC • UNDP CO • UNITAR • Project office • Project consultants	• Project progress reports/PIRs • GEF tracking tool at MTR/TE time	Identified PCB-containing equipment and waste amount to at least 50+100 tons and is properly stored for treatment or disposal under the project The technology or service for the disposal of PCB equipment and waste (within the country or abroad) will be selected and procured/rented in a cost-effective manner to stay

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	reducing global and local environment exposure to these hazardous wastes	concentrated electric oil					within the project's budget and timing constraints Disposal of 50+100 tons of PCB equipment or can be completed within project and budget constraints
Project Outcome 1: Strengthening of legal frameworks, administrative processes and technical preparedness for the sound management of PCBs in Ethiopia	**Indicator 3:** Legal framework for PCBs is drafted and adopted	Verifies that legislation and regulations have been developed or amended to address ESM of PCBs	• PMU/TORs • National and international consultants • Examination of the legal documentation, direct interviews	• Quarterly	• PMU • UNDP • UNITAR	• Draft and final versions of legal documentation • Meeting minutes	Assumption: A fruitful cooperation among project staff, government, and key stakeholders on technical, legal, and financial matters is ensured so that the new or amended regulatory package is implementable, enforceable, and sustainable Risks: Approval of the legislation/regulations by the government takes longer than expected
	Indicator 4: Awareness raising strategy is developed and implemented	Verifies that the awareness raising strategy was implemented, and targets government, public and private sector, civil society, local communities and community leaders	• PMU/TORs • Service providers, national and international consultants • Examination of the awareness raising material, collection of reports, direct interview	• Annually	• PMU • UNDP • UNITAR	• Pre- and post-awareness raising questionnaires • Awareness raising event reports • Awareness raising materials	Assumption: Dissemination of awareness materials considered as key to strengthen the ESM of PCBs at national level Risks: Recipients are not interested in the PCB issue, materials fail to appropriately reach targeted audience
	Indicator 5: Number of women involved in project implementation	Verifies the success of gender mainstreaming in the project	• PMU, national authorities, national and international consultants • Collection of reports, direct interviews	• Annually	• PMU • UNDP • UNITAR	• List of workshop attendees • Workshop and training minutes and reports	Assumption: Meaningful participation of women is considered as key to strengthen the ESM of PCBs at national level and minimising adverse effects Risks: Female recipients are not interested in the PCB

						• Questionnaires	issue, materials fail to appropriately reach targeted audience
Project Outcome 2: Strengthening national capacity for PCB management throughout the lifecycle	**Indicator 6:** Preliminary survey carried out – plan including batch sampling, approach, teams, etc.	Measures the level of successful completion of the preliminary survey	• PMU/TORs • Service providers, national and international consultants • Examination of the preliminary inventory and preliminary survey and plan • Direct interviews	• Annually	• PMU • UNDP • UNITAR	• Draft and final preliminary survey and inventory reports • Sampling plan	Assumption: The preliminary survey completed within the expected timeframe and made available Risks: Survey reports incomplete/not made available
	Indicator 7: Number of equipment sampled and analyzed for PCB content	Measures the number of equipment sampled and analyzed for PCB content with reference to the expected target	• PMU/TORs • Inventory service provider, national and international consultants • Collection of reports, direct interview	• Annually	• PMU • UNDP • UNITAR	• Sampling plan • Draft and final inventory reports • Analytical certificates	Assumption: The detailed inventory completed within the expected timeframe and made available; PCB sampling and analytical data properly collected Risks: Inventory reports incomplete or not made available
	Indicator 8: PCB inventory is established	Verifies that the PCB inventory has been established and is functional	• PMU/TORs • IT service provider, national and international consultants • Examination of the software through accessing the website, collection of reports, direct interviews	• Annually	• PMU • UNDP • UNITAR	• PCB inventory data • PCB inventory online database	Assumption: The PCB inventory database has been placed in a website and made available Risks: Delay in completing the sampling and analysis; PCB inventory is not made available
	Indicator 9: National PCB management plan is drafted and	Verifies that the national PCB management plan has been drafted	• PMU, national authorities, national and international	• Annually	• PMU • UNDP	• Draft and final national PCB management	Assumption: National plan has been drafted in a timely manner and endorsed by the

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	approved	and adopted, measures its level of completeness	consultants • Collection of reports, direct interviews		• UNITAR	plan • Meeting minutes	government Risks: Approval of the national plan by government longer than expected
	Indicator 10: National PCB management plan is reviewed for the first time based on inventory data	Verifies that the national PCB management plan has been reviewed based on inventory data	• PMU/TORs • National authorities, national and international consultants • Collection of reports, direct interviews	• Annually	• PMU • UNDP • UNITAR	• Draft and final review of the national plan based on updated inventory information	Assumption: National plan has been amended in a timely manner and endorsed by government Risk: inventory data not available in time to update the national plan and therefore the plan is not available
	Indicator 11: National PCB tracking system developed and operational	Verifies that the PCB tracking system has been established and is functional	• PMU, national authorities, national and international consultants • Collection of reports, direct interviews	• Annually	• PMU • UNDP • UNITAR	• Draft and final TOR and reports of tracking system	Assumption: Owners of transformers and capacitors will facilitate access to their facilities and records Risks: Tracking system reports incomplete or not made available
	Indicator 12: Number of operators/ technical staff successfully trained	Measures the success of the training in terms of training effectiveness and number of operators/ technical staff trained	• PMU/ TORs • Training consultants, training service providers, trainees, trainers • Data collected through questionnaires, surveys and direct interviews	• Quarterly	• PMU • UNDP • UNITAR	• Pre- and post-training tests • Training reports • Training materials • List of training attendees • Feedback questionnaire from the trainees	Assumptions: Pre- and post-training tests are duly carried out; training reports are drafted; lists of trainees are completed and signed Risks: The above documents are not drafted/not made available
	Indicator 13: Number of training sessions and workshops	Measures that the planned number of training sessions and workshops have been carried	• PMU/TORs • Training consultants, training service providers, trainees,	• Quarterly	• PMU • UNDP • UNITAR	• List of workshop participants • Workshop and training	Assumptions: Training minutes are duly drafted and signed Risks: The above documents are not drafted/not made

		out	trainers • Data collected through questionnaires, surveys, and direct interviews			minutes and reports	available
	Indicator 14: Number of guidance and procedural documents completed	Verifies that guidance and procedural documents have been drafted and are compliant with the Stockholm Convention	• PMU/TORs • International consultants and experts, MEFCC • Collection of reports and direct interviews	• Quarterly	• PMU • UNDP • UNITAR	• Draft and final guidance and procedural documents for PCB management • Meeting minutes	Assumptions: Guidance and procedural documents have been prepared and made available Risks: Time to achieve agreements on the content of guidance document takes too much time
	Indicator 15: Technical assistance delivered and number of sites inspected	Measures the number of sites inspected under the project to verify compliance with PCB regulations and the amount and quality of technical assistance delivered	• National authorities, national and international consultants • Collection of report, direct interviews	• Quarterly	• PMU • UNDP • UNITAR	• Site inspection reports • Technical assistance reports	Assumption: Site inspection reports are duly completed Risk: National authorities/ inspected entities may be not willing to share information
Project Outcome 3: ESM of PCBs liquids and equipment in use or out of service	**Indicator 16:** Capacity (tons) of upgraded storage facilities	Measures the availability and amount of storage capacity of PCB waste and equipment that can be held in an environmentally sound manner	• Contractors • PMUs/TORs	• Quarterly in the first 2 years, then annually	• PMU • UNDP • UNITAR	• TOR for upgrading of storage facilities • Layout of storage facilities, site visits reports (before, during, and after storage upgrading)	Assumptions: Storage facilities identified and upgraded within project timeframe, reports completed, and TORs made available Risks: Storage facilities not upgraded or relevant documents not made available
	Indicator 17: Technology or	Verifies that technology or	• PMUs for TORs	• Annually, quarterly in the	• PMU	• Technology/ disposal service	Assumptions: Vendors committed to provide

	services for PCB disposal is identified based on inventory data, and assessed and procured	services for PCB disposal have been assessed, identified, and procured in compliance with SC requirements and UNDP and GoE rules	• Collection of national and international consultant reports	last 3 years	• UNDP • UNITAR	assessment reports • Technical specifications and TORs for the procurement of PCB technology or services • Bidding documents	updated information on their technologies; bidding documents and procurement completed within project timeframe Risks: Bidding documents/ procurement not completed or made available within project timeframe
	Indicator 18: Disposal technologies or services are tested or certified for their compliance with the Stockholm Convention BAT/ BEP	Verifies that the disposal technologies or PCB disposal services have been tested or are certified for their compliance with SC BAT/BEP	• PMU/TORs • Collection of national and international consultant reports • Analytical laboratories • Direct interviews with vendors and consultants	• Quarterly	• PMU • UNDP • UNITAR	• Technology testing technical plans and reports and site visit minutes during technology testing, if applicable • Analytical certificates	Assumptions: Testing of PCB disposal technologies completed within project timeframe, if applicable Risks: Testing of PCB disposal technologies not completed within project timeframe, therefore relevant documents are not made available
	Indicator 19: Amount of equipment or waste containing or contaminated by PCB disposed in an environmentally sound manner	Measures the amount of PCB waste and equipment, including contaminated soil, that has been treated or disposed in an environmentally sound manner	• PMU/TORs and reports • International consultants, operators of disposal technology if applicable, provider of disposal services • Direct interviews and collection of reports	• Quarterly	• PMU • UNDP • UNITAR	• Hazardous waste manifests/ certificate of storage, transportation, and disposal of the amount of PCB waste treated in compliance with Ethiopian legislation and SC/BC obligations • Site visit reports to	Assumptions: Information on PCB disposal made available throughout the entire set of disposal activities; equipment disposed/treated properly tracked Risks: Data on PCB handling and disposal not properly collected during project implementation; hazardous waste manifest system poorly established

						storage (and disposal facilities, if applicable) during operations • Analytical certificates	
Project Outcome 4: Monitoring, evaluation and replication	**Indicator 20:** Monitoring activities have been carried out	Measures whether project monitoring activities have been carried out and project management structures have been established	• Collection of minutes and reports during inception and meetings of the PSC • Collection of project management reports at UNDP or PMU offices • Direct interviews with persons in charge	• Quarterly	• PMU • UNDP • PSC • UNITAR	• Inception report • PIRs, APW and QPW, APR and QPR, meeting minutes	Assumptions: Key project management and monitoring steps carried out in a timely manner; project started within expected deadline; PSC and PMU established in a timely manner and working effectively Risk: Delay in project signature and starting date; PSC and PMU not effective in the day-to-day management and monitoring of the project
	Indicator 21: Evaluation activities have been carried out	Measures whether MTE and TE have been properly carried out	• Independent consultants	• After 2nd PIR submitted to GEF and after final PIR submitted	• PMU • UNDP • PSC • UNITAR	• MT report, TE report	Assumptions: Project activities carried out within the timeframe set; independent evaluators and auditors will carry out their evaluation task timely, effectively, and independently Risks: Delay in project activities and in carrying out evaluations; MTE reports and TE reports not available.
	Indicator 22: Knowledge management system established and sustained	Measures whether the Knowledge Based System has been implemented	• Providers of web based services, PMU, UNDP	• Annually	• PMU • UNDP • PSC • UNITAR	• Website, PCB information system	Assumptions: Website and PCB information system, including PCB inventory, have been developed and are available Risks: Delay in carrying out knowledge management

							system, incompleteness of reporting

Annex C - Evaluation Plan:

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants	Other budget (i.e. travel, site visits etc...) – only co-financing	Budget for translation
Terminal Evaluation	November 2021	February 2022	Yes	USD 30,000	USD 0	USD 0
			Total evaluation budget	USD 30,000		



Annex E: Terms of reference for project personnel

Project Title	PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1
Consultancy Title	National Technical Coordinator (NTC)
Contractual Modality	Full time – one year renewable up to 4 years.
Duty Station	Addis Ababa with travel in Ethiopia
Supervision	Project Board and UNDP

Duties and Responsibilities

Overall, the NTC will be responsible for the day-to-day running of the project, including overall coordination, planning, management, implementation, monitoring & evaluation and reporting of all project activities including to:

- Prepare and update project work plans, and submit these to the Project Board and UNDP for clearance.
- Participate in quarterly work planning and progress reporting meetings with the Project Board, project team, and UNDP;
- Ensure that all agreements with implementing agencies are prepared, negotiated and agreed upon
- Prepare TORs for key inputs (i.e. personnel, sub-contracts, training, and procurement) and submits these to the Project Board and UNDP for clearance, and administers the mobilization of such inputs.
- With respect to external project implementing agencies/ sub-contractors:
    a. Ensure that these agencies mobilize and deliver the inputs in accordance with their letters of agreement or contracts, and
    b. Provide overall supervision and/or coordination of their work to ensure the production of the expected outputs.
- Assume direct responsibility for managing the project budget by ensuring that:
    a. Project funds are made available when needed, and are disbursed properly,
    b. Expenditures are in accordance with the project document and/or existing project work plan,
    c. Accounting records and supporting documents are properly kept,
    d. Required financial reports are prepared,
    e. Financial operations are transparent and financial procedures/regulations for NIM projects are properly applied; and
    f. Be ready for audits at any time.
- Assume direct responsibility for managing the physical resources (e.g. vehicles, office equipment, and furniture) provided to the project by UNDP.
- Supervise the project staff and local or international short-term experts/consultants working for the project.
- Prepare project progress reports of various types and the Final Project Report as scheduled, and organize review meetings and evaluation missions in coordination with UNDP.
- Report regularly to and keeps the Project Board and UNDP CO up-to-date on project progress and problems.

Required Qualifications

- University degree (post-graduate degree would be considered as an asset) in environment management, economy, management, chemicals or related fields; Knowledge of Result-based management and at least 5 years of experience in project management and implementation;
- Strong analytical skills, good inter-personal and team building skills – Leading skills;
- Full time availability for project management duties;
- Working level of English language is an absolute necessity;
- Familiarity with technical assistance projects and UN/GEF programme on POPs and PCBs disposal is an asset.

Project Title	PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1
Consultancy Title	National Administrative Assistant
Contractual Modality	Full time – one year renewable up to 4 years.
Duty Station	Addis Ababa with travel in Ethiopia
Supervision	NTC and UNDP

The National Administrative Assistant is responsible for all the administrative and accounting matters under the Project. Under direct supervision of the NTC, the incumbent will:

- Maintain administrative files relevant to the Projects;
- Maintain day-to-day communication with regarding the Project's administration matters: procurement, human resources and finance matters; provide administrative support regarding recruitment of experts and procurement of goods and services under the Projects;
- Provide support to procurement processes related to the project's implementation: provide inputs for preparation of procurement plans for the office; provide support to organization of procurement processes including preparation of tender documents, receipts of quotations, bids or proposals, and their preliminary evaluation;
- Perform regular financial and administrative duties necessary for the successful and timely Projects' implementation, such as:
  - Enter daily transactions in Atlas system (vouchers, requisitions, etc.);
  - Keep track of all transactions in a budget notebook;
  - Perform regular budget revisions;
  - Provide regular delivery estimation and monthly expense estimation to the Finance Unit; provide regular reporting regarding the Projects' expenditures;
  - Prepare periodic Projects' asset/inventory reports;
  - Ensure completeness of documentation, check accuracy of calculation for all financial transactions related to the Projects, and prepare/process financial transactions in the system in accordance with UNDP rules and procedures.
- Draft routine correspondence, facsimile, memoranda and reports from oral instructions, previous correspondence or other available information sources, in accordance with the standard office procedures, and ensure appropriate follow-up; write minutes from the meetings; provide translation/interpretation services into English and vice versa when needed.
- Provide logistical support to the Projects and ensure provision of adequate secretarial and interpretation facilities (organization of Projects' events, meetings and study tours, arrangement of shipments, project vehicles maintenance, conference facilities arrangements, visits of experts, timely processed daily subsistence allowances, etc.).

A. Competencies:

Corporate Competencies:

- Demonstrates commitment to UNDP's mission, vision and values;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.

Functional Competencies:

Knowledge Management and Learning

- Shares knowledge and experience;
- Actively works towards continuing personal learning, acts on learning plan and applies newly acquired skills.

Development and Operational Effectiveness

- Ability to perform a variety of standard tasks related to Results Management, including screening and collecting of programme/projects documentation, projects data entering, preparation of revisions, filling, provision of information;
- Ability to provide input to business processes re-engineering, implementation of new systems.

Leadership and Self-Management

- Focuses on result for the client and responds positively to feedback;
- Consistently approaches work with energy and a positive, constructive attitude;
- Remains calm and in control even under pressure.

Qualifications and Experience:

- Secondary Education; University Degree in Economy, Management or related sciences is desirable, but it is not the requirement;
- Minimum 4 years of relevant administrative experience at the national or international level;
- Experience in office management, preferably with an international organization;
- Experience in UN/UNDP or other international organization financed projects will be an advance;
- Excellent working knowledge of written and spoken English language;
- Excellent computer skills; experience in operating in web management systems.
- Excellent inter-personal and communication skills;
- Excellent organizational skills with developed attention to detail;
- Ability to work independently and in a team.

Project Title	PCB Management in Ethiopia to meet the 2025 Stockholm Convention deadline – Phase 1
Title	National Technical Officer of the Project Management Unit
Contractual Modality	Full time – one year renewable up to 4 years.
Duty Station	Addis Ababa with travel in Ethiopia
Supervision	NTC and UNDP

Duties and Responsibilities

This assignment is for a full-time Technical Officer who will be recruited with the objective to provide with technical assistance and advice on all the activities to be carried out under the Project, to help on routine technical coordination and supervision and to prepare or assist in the preparation of relevant project documentation and training materials. The TO will work under the supervision of the Project Coordinator. The Technical Officer will in general, be responsible for:

1. Assisting in drafting the inception report of the project;
2. Assisting in overall technical management and coordination of all project activities;
3. Technical support to on the supervision of all the technical activities related to institutional strengthening, policy framework, POPs and PTS cleanup plans, project monitoring and evaluation, and replication program development;
4. Technical support to in participating in meetings with UNDP and the Project Board;
5. Technical support to in coordinating the work of international consultants;
6. Providing comments on project implementation progress at different stages;
7. Assisting in drafting Terms of References for all the services and equipment to be procured under the project;
8. Assisting in drafting technical reports and management reports like the Project Implementation Reports, (PIR), Annual and Quarterly Progress Reports (APR, QPR) and Annual and Quarterly Workplans (AWP, QWP);
9. Assist in drafting minutes of the meetings with special reference to the technical part;
10. Perform site visits and inspections at project implementation sites during various implementation stages (site visits and inspection at EPCG, KAP, facilities for the storage of PCB, transformer substations, industrial sites, trainings)
11. Provide comments on the reports related to the technical activities and review the related plan under the Project to ensure their technical feasibility and most appropriate measures and actions taken.
12. Supervise the work of service provider to guarantee the quality and consistency of the reports and deliverables, and help them finalize reports before their dissemination to concerned parties;
13. Timely and proactively provide recommendation for the improvement of all project activities.

Duration of Assignment, Duty Station and Expected Places of Travel

- This is a full-time assignment for the duration of one year. The contract may be renewed yearly for maximum of 4 years (the duration of the Project) on the basis of the satisfactory evaluation of the performance of the work carried out by the Technical Officer in the preceding year.
- The Technical Officer will work as part of the project team.
- The Technical Officer is expected to travel within the country at the implementation sites, to supervise project implementation activities. The exact number of travels will be specified in the course of project implementation based on project needs. Travel and subsistence during travel will be paid by the project.

Deliverables

Environment, Forest & Climate Change Record & Archive Commission
UNITED NATIONS DEVELOPMENT PROGRAMME

The following deliverables will be submitted to the by the Technical Officer:

- Short quarterly work-plan of the activities to be carried out under this assignment;
- Draft Inception report of the Project;
- Quarterly reports of the activities carried out under this assignment (three reports per year);
- Comments reports and supervision reports as relevant for the different project activities;
- Draft TORs for the required project activities;
- Draft PIR, APR, QPR, AWP, QWP
- Mission report and debriefing for the field visit;
- Meeting minutes, with special reference to the technical parts.

Required Qualifications

The Technical Officer shall have as a minimum the following qualifications:

- University Degree in Engineering, Industrial Chemistry, Environmental Science, Biology;
- Sound experience on POPs and Stockholm Convention;
- At least 5-year experience in the field of chemical risk assessment, or in projects related to the implementation of Stockholm Convention on POPs, or in the management of hazardous chemicals and waste;
- Previous experience as supervisor / Technical Officer in projects related to environmental protection or hazardous waste management;
- Previous experience in the implementation or supervision of projects related to the management and disposal of POPs or PCBs is an asset.