



Project Implementation Report

(1 July 2022 – 30 June 2023)

Project Title:	PCB-Free Electricity Distribution in Georgia
GEF ID:	9227
UNIDO ID:	1502014
GEF Replenishment Cycle:	GEF-6
Country(ies):	Georgia
Region:	<i>ECA - Europe and Central Asia</i>
GEF Focal Area:	<i>Chemicals and Waste (CW)</i>
Integrated Approach Pilot (IAP) Programs¹:	IAP-Commodities; IAP-Cities
Stand-alone / Child Project:	Stand-alone project
Implementing Department/Division:	<i>ENV / IPM</i>
Co-Implementing Agency:	<i>N/A</i>
Executing Agency(ies):	Ministry of Environmental Protection and Agriculture of Georgia through Regional Environmental Centre for the Caucasus (RECC) JSE Energo-Pro Georgia; GSE – Georgia State Electro system
Project Type:	Full-Sized Project (FSP)
Project Duration:	48 months
Extension(s):	1
GEF Project Financing:	3.910.000 USD
Agency Fee:	371.450 USD
Co-financing Amount:	56.095.000 USD
Date of CEO Endorsement/Approval:	8/11/2017
UNIDO Approval Date:	10/12/2017

¹ Only for GEF-6 projects, if applicable

Actual Implementation Start:	1/11/2018
Cumulative disbursement as of 30 June 2023:	1,865,421.31 USD
Mid-term Review (MTR) Date:	10/22/2021
Original Project Completion Date:	1/11/2022
Project Completion Date as reported in FY22:	1/11/2024
Current SAP Completion Date:	1/11/2024
Expected Project Completion Date:	1/11/2025
Expected Terminal Evaluation (TE) Date:	1/11/2025
Expected Financial Closure Date:	1/11/2026
UNIDO Project Manager²:	Vladimir Anastasov

I. Brief description of project and status overview

Project Objective	
The project objective is ensuring sound PCB management in Georgian electricity distribution network through legal, institutional and capacity strengthening; management and disposal of equipment containing high concentrations PCBs oils; and technology transfer for long lasting PCB management capacity in the electricity distribution sector. The project aims to safeguard and dispose 300 tons of PCB oils and its associated equipment and 1000 tons of PCB containing oil from electricity distribution.	
Project Core Indicators	Expected at Endorsement/Approval stage
Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern.	1,100 metric tons oils consisting of 100 tons pure PCBs in approximate 300 tons of equipment and 1,000 tons of PCB contaminated oil.

Baseline
The National Implementation Plan (NIP) for the Stockholm Convention on POPs prepared in 2011 and revised in 2018 provides some basic data on identified quantities of PCB-containing transformers from the energy sector. In the course of the NIPs preparation 216 transformers containing PCBs were identified, but only 45 samples were subjected to quantitative analysis by GC, without explanation on how the PCB presence in rest of transformers was confirmed. Moreover, a percentage of 20-25% was used for the extrapolation needs (meaning that the 216 PCB identified

² Person responsible for report content

transformers are 20-25% from the total number of the tested transformers, i.e. around 1,000 transformers). The total oil tonnage of the 216 identified PCB containing transformers is 632 tons in about 2,000 tons of equipment.

There are no regulations specifically addressing PCBs and the management of PCB-containing electrical equipment have been developed. There are no specific standards and guidelines that would provide a progressive phase-out and elimination of PCBs and PCB- containing electrical equipment.

Baseline projects:

The GEF/UNDP project on “Preparation of the Persistent Organic Pollutants (POPs) National Implementation Plan under the Stockholm Convention” developed the Persistent Organic Pollutants National Implementation Plan was approved in (#907) 2011. No PCB related projects in the country after preparation of the NIP. However, there were a number of international and national POPs related projects implemented including: “Capacity Building on Obsolete and POPs Pesticides in Easter European, Caucasus and Central Asian (EECCA) Countries” supported by GEF. Also, associated baseline projects consist of ongoing regulatory and managerial functions provided by Ministry of Environment and Energy. In addition to this, the baseline projects are the ongoing electricity distribution network upgrading and maintenance efforts undertaken by related industries, including JSC “Georgian State Electro System” (GSE) the state joint stock company providing transmission and exclusive dispatch services to about 50 eligible companies in Georgia and JSC “Telasi” the major network companies of Georgia, carrying out distribution and sale of electric power in Tbilisi.

Overall Ratings ³	FY23	FY22
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	Satisfactory (S)	Satisfactory (S)
No change since FY22		
Implementation Progress (IP) Rating	Moderately Satisfactory (MS)	Satisfactory (S)
The foreseen completion date for the project is 11.01.2025. National stakeholders required more time than initially planned to confirm the desired option for decontamination technology. A competitive call for offers was launched by the Ministry of Environment to identify an operator for a PCB decontamination platform in Georgia. The selection is under finalization but has impacted the effectiveness in project implementation.		
Overall Risk Rating	Low Risk (L)	Low Risk (L)
No change since FY22		

II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator’s targets in the project’s **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.

³ Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Component 1 – Legal, institutional and capacity strengthening				
Outcome 1.1: Regulatory instruments and guidelines for safe PCB management adopted				
Output 1.1.1: Development of PCB specific amendments in waste legislation	Number of amendment covering PCB in waste legislation approved/enacted	Currently, the waste legislation is compliant with the Basel convention. However, no specific rules on the management of PCBs containing waste are included	Chemicals and waste legislation amended with standard and procedures for the classification of PCB containing waste and their disposal, in compliance with the Stockholm Convention, Basel Convention and EU regulation on POPs and PCBs	<p>PCB legal regulation package was submitted to the Ministry of Environment Protection for review and approval.</p> <p>The draft Decree of the Government of Georgia “On Approval of the Technical Regulation on Special Requirements for the Collection and Treatment of Hazardous Waste” on Amendments to the Decree of the Government of Georgia of March 29, 2016 No. 145”, developed by the Project in FY22 was approved and officially endorsed by the Government of Georgia in January 2023.</p> <p>The decree defines special requirements for the procedure of analysis, requirements for labeling of equipment/supplies containing PCBs or contaminated by them, rules for preventing leakage and cross-contamination of dielectric oils, as well as the procedure for the regeneration and treatment of contaminated oils. Safety measures for handling polychlorinated biphenyls (PCBs) and procedures for avoiding possible risks are also established.</p>
Output 1.1.2: Development of technical guidelines covering all stages of PCB life-cycle	Number of technical guidelines covering different stages of PCB life cycle, including standards on dielectric oil quality, inventory requirements for PCB containing equipment, analytical standards, environmental standards, standards for disposal and treatment technologies approved/ enacted	Technical guidelines on PCB are currently missing	Technical guidelines covering identification, labelling, storage, transport, treatment and disposal of PCB containing or contaminated equipment enacted/approved. Guidelines concerning environmental quality standards (threshold concentration limit in environmental media) and technical standards on allowed PCB	<p>Technical guidelines are delivered to the beneficiary (Ministry of Environment protection and Agriculture) and they are well accepted/ received. Project teams kept monitoring endorsement of guidelines by stakeholders during FY 23.</p> <p>Target reached, no additional activity in FY 2023</p>
Outcome 1.2. Capacity for PCB regulation enforcement created				
Output 1.2.1: Training of PCB holders in implementing the new legislation on PCB management	Number of PCB holder and officers successfully trained as demonstrated by training reports and pre and post-training tests, disaggregated by male and female percentage. Number of trainees Male/female	No training on PCB management and inspection has been ever carried out for PCB holders and state inspectors	At least 187 persons from the electric power and manufacturing sector, and at least 50 persons from the government trained on PCB management and on the PCB regulatory framework established under the Stockholm Convention, the Basel Convention and the EU environmental regulation. Participation to training of 30% female and 70% male.	<p>In addition to the trainings of 59 industry representatives trained in 2022</p> <p>In 2023 the following trainings were conducted: Training sessions for key technical staff of Energo-Pro and Georgia State Electrosystem (52), Telasi (26), Industries (52) and Inspection authority (57). Representatives from these sectors were instructed on practical and theoretical aspects of the legislation and guidelines developed within the project and have been provided with all training materials. The main objectives of the training sessions were to create technical capacity and good understanding of legal requirements to be applied as a result of PCB legislation that is to be adopted as a result of the project activities</p>
Output 1.2.2: Upgrading government capacity to	Availability of a PCB database compliant	The capacity of the government to enforce	A team dedicated to the enforcement of	Database of electric equipment is developed in accordance with the inventory process. The

enforce PCB regulations, including PCB information management	with UN and EU rules on PCB. Availability of dedicated staff for the enforcement of PCB legislation at Ministry of Environment and Natural Resources Protection	PCB regulation is missing, as a specific regulation on PCB is missing	PCB regulation established at the Ministry of Environmental Protection and Agriculture A team dedicated to the compliance with PCB regulation established for each one of the key electricity distribution companies (at least 4 teams established), equal share of 50% female and 50% male in the enforcement teams	<p>database has been finalized and shared with the Ministry of Environmental Protection and Agriculture.</p> <p>Draft PCB regulation is developed and submitted to the Ministry for approval</p> <p>In addition to the database of electric equipment created in 2022, Draft PCB regulation developed and submitted to the Ministry in 2022, in 2023 Resolution N 575 on the Approval of Technical Regulation Regarding Special Requirements for the Collection and Processing of Hazardous Waste" was adopted by the Government of Georgia on 15 December, 2022 , as Amendment of Resolution No. 145 dated March 29, 2016, of the Government of Georgia</p> <p>In 2023 dedicated teams of inspectors are created and trained in the Ministry of Environmental Protection and Agriculture</p> <p>Training for inspection authority regional offices on inspection of PCB regulations implementation – 30 participants (19 female and 11 male)</p> <p>Representatives from these sectors were instructed on practical and theoretical aspects of the legislation and guidelines developed within the project, application of PCB screening procedures and have been provided with all training materials</p> <p>Activity in progress</p>
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Output 1.2.3: Undertake targeted awareness raising for high-risk population groups	Availability of awareness raising material published in websites, or broadcasted through TV and webinars Number of high risk people, disaggregated by sex and age (workers, people from local communities) informed through awareness raising initiatives, number of people reached male/female	Limited activities aimed at informing stakeholders on PCB carried out in the course of NIP and project preparation. Awareness raising on PCB never carried out before	A website containing the information on PCB, Stockholm Convention, project activities and technical and scientific publication developed. At least one webinar on PCB management hosted on the website A documentary on the GEF, Stockholm Convention, UNIDO activities and the PCB issue produced and broadcasted on TV at national level	Awareness raising event was organized for 28 participants (16 female and 12 male)
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Component 2 – Management and disposal of equipment containing high concentration PCB oils

Outcome 2.1: Process for managing high-risks PCBs established

Output 2.1.1: Verify pure PCB equipment and manage them safely until replacement

Output 2.1.1: Verify pure PCB equipment and manage them safely until replacement	Availability of pure PCB equipment safely managed pending disposal and replacement	Exhaustive inventory of PCB is currently missing. PCB management not covered by the current maintenance procedures established in the power sector, as demonstrated by the survey carried out at project preparation stage	At least 100 tons of pure PCB identified on the basis of nameplate information or testing of dielectric oil. Equal access to training and information for women and men ensured	<p>In 2020 and 2021, the project conducted an initial sampling campaign on 3000 samples oils collected in the Energy System. All collected dielectric oil samples were tested by Dexsil L2000 analyzer and 1,319 samples were found to be positive. In 2021, these 1,319 samples were verified by Gas chromatography.</p> <p>This first analysis campaign did not lead to the identification of large quantities of PCB-contaminated oil. Aside from the inventoried number of electric equipment, there are approximately 11,000 transformers in the country.</p>
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				<p>In light of the above, the decision was made to conduct an additional sampling campaign of up to 1000 transformers in Western Georgia, which should be completed by Q3 2023.</p> <p>All identified equipment with high PCB concentration are labelled with warning stickers (based on 3000 inventoried equipment and dexil screening results conducted in 2021 and 2022).</p>
Outcome 2.2: Reduction of health and environmental risks locally and globally				
Output 2.2.1: Transportation and disposal of 300 tons of PCB oils including associated equipment	Amount of pure PCB equipment transported for final disposal, certified by Basel Convention transport document, hazardous waste manifest, and final disposal certificates	No highly contaminated or pure PCB equipment disposed of until now	At least 300 tons of dielectric oil with high level (over 5000ppm) of PCB and associated electric equipment transported and disposed of in compliance with Stockholm Convention, Basel Convention and EU regulation. Equal access to job opportunities ensures for women and men	Transportation of high PCB concentration oil will happen after additional inventory is completed and that decontamination technology is selected accordingly.
Component 3 – Technology transfer for long lasting PCB management capacity in the electricity distribution sector				
Outcome 3.1. PCB holders fully competent in PCB management				
Output 3.1.1: Detailed inventory of the PCB containing transformers in all industrial sectors	Availability of a detailed inventory of PCB containing electrical equipment, including quantitative PCB concentration data and all data useful to track listed transformers. Number of transformers verified for PCBs.	Only a preliminary inventory carried out during NIP and PPG stage	A database on PCB inventory developed. At least 1000 transformers or other electrical equipment tested for PCB, by means of quantitative analysis.	Besides the 4000 samples that were collected and analyzed during the previous reporting period, an additional 530 oil samples were collected in 2023. Out of these, 305 samples have been analyzed using the Dexsil L 2000 analyzer. By the end of 2023, a total of 1000 additional samples will be collected and analyzed, which includes the 530 samples that have already been collected.
Outcome 3.3: Technology transfer capacity established				
Output 3.3.1: Procurement and testing of mobile PCB decontamination technology	Availability of a PCB decontamination technology	No technology for the treatment of PCB contaminated equipment	Mobile decontamination technology operational	<p>ToR for selection PCB decontamination technology developed and service provider selected</p> <p>For selection of an operator able to operate PCB decontamination technology the following steps have been undertaken:</p> <ul style="list-style-type: none"> - ToR and tender dossier have been developed - Active consultations with MEPA and UNIDO were undertaken - Tender has been announced in Q2 2023 - Selection committee meeting has been conducted for assessment of offers in Q2 2023 - Review process is being finalized
Component 4 - Monitoring and evaluation				
Outcome 4.1: Assessment of the impact of project activities including lessons learned				
Output 4.1.1. Project impact indicators designed, applied and project implementation monitored and evaluated	Availability of PIRs with UNIDO GEF rules on project reporting and monitoring	Not Applicable	Project knowledge management system in place	<p>73 %</p> <p>Besides the 7 steering committee meeting that were organised during the previous reporting period, an additional steering committee meeting</p>

	Availability of inception report, MTE and TE report, financial audit Evidence that the impact on gender mainstreaming has been measured		Inception workshop held within 2 months from project start PIR drafted and approved Mid term evaluation carried out and approved within 30 months from project starting	was organised on March 17, 2023 with participation of 10 members (6 female, 4 male) MTR report has been prepared in February 2021
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III. Project Risk Management

1. Please indicate the overall project-level risks and the related risk management measures: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

	(i) Risks at CEO stage	(i) Risk level FY 22	(i) Risk level FY 23	(i) Mitigation measures	(ii) Progress to-date	New defined risk ⁴
1	Financial: The expected budget is in line with current international market prices for PCB destruction. However, prices for PCB disposal will be carefully monitored through inquiries with vendors and proper procurement.	((L)	(L)	The expected budget is in line with current international market prices for PCB destruction. However, prices for PCB disposal will be carefully monitored through inquiries with vendors and proper procurement.	There is no any sign or information so far available about risk related to financial and budgetary constraints	<input type="checkbox"/>
2	Financial: PCB holders not willing to cover their part of operational cost of PCB decontamination technologies.	(L)	(L)	Compared with the market situation, which will arise after the enacting and enforcement of the PCB regulation in Georgia, thanks to the GEF contribution, the cost for disposal of PCB will be only a fraction of the cost the enterprises would be asked to pay without the project. Therefore, the technological option set up by the project will be the most cost effective for PCB owners, even if they will be to cover part of the operational cost.	Consultations ongoing with relevant public and private stakeholders on co financing requirements.	<input type="checkbox"/>
3	Improper management of PCB equipment: PCB holders starting to get rid of PCB equipment in improper way before project implementation	(M)	(M)	A successful cooperation has been already secured with electric enterprises owning most of the PCB contaminated equipment. The project will however envisage the enforcement of custom surveillance and inspection carried out by the authority to prevent any improper disposal or export of PCB contaminated transformer	Project does recording of all data related to each facility that is inventoried and in case PCB holders decide to get rid of their property, they will be obliged to declare about absent reasons in front of inspection authorities	<input type="checkbox"/>
4	Management: Timing for enacting a new legislation on PCB too long for having the regulation in place during project implementation	(L)	(L)	The project will prepare a Sub-legislation under the Waste Framework Law, which will be the most effective and fast way to establish a new regulatory tool for managing PCBs. In this way, the PCB regulation can be enacted during first half of project implementation and put it into force before the project end	Project has already enacted all the required technical guidelines that is important particularly for the PCB holders, and currently project does elaboration of legislation document particularly related to PCB. The active coordination happens with the Ministry of Environment and Agriculture for smooth development of legal act.	<input type="checkbox"/>

⁴ New risk added in reporting period. Check only if applicable.

5	Management: Weak coordination among stakeholders	(L)	(L)	The project management modalities and institutional arrangement, with the establishment of a PEE and a PSC, will ensure a proper and continuous coordination among stakeholder	There is active coordination with project stakeholders and project steering committee meeting are also regularly organized	<input type="checkbox"/>
6	Environmental (climate change): Climate change induced flooding making transport and handling of PCBs riskier	(L)	(L)	Ensure that the PCB Management plan takes into account weather disturbances during its execution. This will be further addressed in the project's Environmental and Social management plan (attached)	The climate related risks are low but in any case project staff takes into account all possible risks that can be raised from climate perspectives	<input type="checkbox"/>
7	Environmental (climate change): Increased flooding episodes making previously safe transformer sites more risky operations	(L)	(L)	This risk will be included in the priority setting criteria, when deciding on the equipment to be targeted	The climate related risks are low but in any case project staff takes into account all possible risks that can be raised from climate perspectives	<input type="checkbox"/>
8	Environmental (pollution): Leaking of PCB during project operation	(M)	(M)	This risk will be minimized through proper adoption of international best practices aimed at preventing any PCB spillage and establishing a sound accident preparedness.	The inventory team is well trained to avoid any oil spilling during inventory and sampling process. Also team is collecting information about already oil polluted sites	<input type="checkbox"/>
9	Environmental (human exposure): Project staff exposed to PCB during project operation	(M)	(M)	This risk will be minimized through proper adoption of internationally approved risk management measures including PPE and Standard Operational Practices aimed at avoiding any direct exposure to PCBs. The technical staff will be trained on proper handling of PCB waste and equipment. Relevant guidelines will be developed or adjusted and introduced at the technical facilities of the project.	Project team is in advance well trained and guided about safety procedures and PPE usage so that the risk of PCB exposure is minimized	<input type="checkbox"/>

2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this.

N/A

3. Please indicate any implication of the **COVID-19** pandemic on the progress of the project.

In 2021 and 2022, COVID-19 caused delays in the execution of activities related to inventory of PCBs, awareness raising and capacity building. In FY23, restrictions are lifted and COVID-19 has not impacted the Project.

4. Please clarify if the project is facing delays and is expected to request an **extension**.

The current operational completion date of the project is January 2024. Crucial milestones were reached in FY23 regarding the adoption of a regulation enforcing obligations for owners of transformers to test, monitor and decontaminate their equipment when contaminated by PCBs. A call to identify an operator able to host and operate PCB decontamination technology was also successfully launched in Q1 2023 and is currently being reviewed by national stakeholders, with technical input from UNIDO. The selection of a private operator for an in-country PCB decontamination solution required sound information regarding the potential economic outcomes of the activities. The ongoing inventory of an additional 1,000 samples from transformers will contribute to evaluate the expected quantities of PCBs in Georgia, confirm the economic outcomes of the PCB decontamination for the operator and select the operational capacity of the technology accordingly. Once these aspects are duly clarified,

UNIDO will initiate the procurement process for the PCB decontamination technology and services. This process will require at least 6 months. In addition, the project aims to accompany the decontamination process for at least 6 months, to ensure that the expected environmental and social safeguards are in place and that decontamination is conducted in an environmentally-sound manner.

. To this end, a one-year extension may be requested by UNIDO and the Project Steering Committee in Q4 2023.

5. Please provide the **main findings and recommendations of completed MTR**, and elaborate on any actions taken towards the recommendations included in the report.

Main Findings and Recommendations of MTR

- To the extent possible and realistic, considering budgetary resources within the project, Guidance on management of contaminated sites could be prepared.
- Expedite the approval, Draft Amendments to be approved as soon as realistically possible, to expedite further sampling and testing of equipment at the companies.
- To ensure dissemination and outreach of the Guidance documents
- Continue training on Guidelines
- Further trainings to be conducted for personnel in the field handling transformers
- Training to be conducted/replicated for the State Inspectors, as well as persons from the Revenue and Customs Department, in the different regions/at the borders.
- Companies, if necessary, with the support of the PMT, to prepare and deliver (to the MOEPA) PCB elimination plans for the time after project completion, if elimination of all existing PCB oils not achieved within project duration;
- All stakeholders could consider country perspective – elimination of PCBs in Georgia -> health and social benefits for the people of the country – besides project objectives (PCB-free electricity distribution in Georgia).
- The approval of Draft Amendments to be expedited
- Capacity-building of field personnel (companies, as well as State Inspectors, Customs Officers at Borders) to be continued
- Awareness-raising activities to be continued
- Companies to be proactive in carrying out inventory of the rest of the equipment, as well as sampling and testing of transformers/oils to identify further PCB-contaminated equipment, and prepare a PCB-elimination plan for the time after project completion

IV. Environmental and Social Safeguards (ESS)

1. As part of the requirements for **projects from GEF-6 onwards**, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?

- ☐ Category A project
- ☒ Category B project
- ☐ Category C project

(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
(i) Risks identified in ESMP at time of CEO Endorsement	Pollution of environment and personal exposure due to accidental release of PCB contained oil while Inventory of the PCB containing transformers (sampling activities)	All E&S risk are identified and project inventory team does sampling of oils in accordance with international guidance principles and also follows precaution measures defined by the companies that are involved in inventory. Moreover, all related risks are minimized due to awareness campaigns and implemented trainings.	Project personnel and inventory team has undertaken special training in sampling related safeguards to avoid environment pollution and personal exposure of PCB containing oils. Industry safety representatives were recording and supporting inventory team to make a sampling and company technical management was monitoring sampling process with company established monitoring schemes
	Deterioration of ambient air due to transportation activities	All related risks are minimized due to guidelines requirements and awareness campaigns.	Samples transportation from companies to the testing location was monitored regularly by routine communication and with verification of guidance principles related to transportation safety
	Propagation of noise and vibration due to transportation activities	All related risks are minimized due to guidelines requirements and awareness campaigns.	Samples transportation from companies to the testing location was monitored regularly by routine communication and with verification of guidance principles related to transportation safety
	Pollution of environment by hazardous substances (accidental release of PCB contained oil) due to transportation activities	All related risks are minimized due to guidelines requirements and awareness campaigns.	Samples transportation from companies to the testing location was monitored regularly by routine communication and with verification of guidance principles related to transportation safety
	Impact on traffic flow while transportation activities due to transportation	All related risks are minimized due to guidelines requirements and awareness campaigns.	Samples transportation from companies to the testing location was monitored regularly by routine communication and with verification of guidance principles related to transportation safety
	Deterioration of ambient air due to transportation activities	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	Samples transportation from companies to the testing location was monitored regularly by routine communication and with verification of guidance principles related to transportation safety and all transportation means are required to have technical inspection certificate that includes air emission control
	Risks related to treatment of PCB contaminated electric equipment and oil by mobile PCB decontamination technology	Selection of the operator for the PCB decontamination technology and of the equipment provider of the said technology is currently being undertaken with close attention to environmental and social safeguards. The project plans for an international company, well-established in the field of PCB decontamination, to operate the in-country solution for an initial period of several months, thereby ensuring sound technology transfer, continued capacity-building and close monitoring of environmental safeguards. The project team will also routinely inspect and monitor the operations, in collaboration with the Ministry of Environment	
	Deterioration of ambient air while treatment of PCB contaminated electric equipment and oil by mobile PCB decontamination technology	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	

	Propagation of noise and vibration while treatment of PCB contaminated electric equipment and oil by mobile PCB decontamination technology	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	
	Pollution of environment (water and soil) by hazardous substances (accidental release of PCB contained oil or decontaminated oil – spill or leakage while temporary storage or while treatment operations such as drainage, destruction, regeneration and refilling)	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	
	Health and safety risks for local community (Indirect exposure of residents nearby)	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	All stakeholders who will participate in the project activities, will be registered to ensure there is minimal risks for humans exposure to PCB
	Occupational health and safety risks (Exposure of workers)	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)		All the project staff is well trained to react and mitigate in case of any accident. Guidance principles are also	Project staff is well trained and guidance procedures are implemented

V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

Project has improved the effectiveness of the multi-sectorial cooperation in the area of PCB management in Georgia. The format and model of project's steering committee consist of all beneficiaries are actively involved in implementation and/or validation of all the project deliverables and results.

Series of capacity strengthening activities have been undertaken with involvement of all relevant stakeholders including representatives of Government, energy, private sector and CSOs. In total 6 trainings have been undertaken on Theoretical and Practical Issues of Legislation and Guidelines with participation 187 participants for the representatives of Department of Environmental Supervision of the Ministry of Environmental Protection and Agriculture of Georgia, industry, Energo-Pro, Telasi and Electro-system.

Based on MTE recommendations the need for expanded awareness-raising, capacity building and inventory activities have identified. Project team reflected additional activities dedicated to training of different stakeholders and dissemination of PCB management information and visibility materials in 2023 work plan, Awareness raising event was organized with participation of 46 key stakeholder group, including youth and women.

Inventory team continues collection of samples of additional 1000 transformers, 503 samples have been collected, out of which 305 has been analyzed with application of the L2000DXT PCB/Chloride Analyzer and 225 samples are being analysed currently.

Procurement and testing of mobile PCB decontamination technology has been successfully initiated, TOR for selection PCB decontamination technology developed and service provider selected

2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

For gathering feedback from the stakeholders, the project team applies the use of anonymous survey – event evaluation forms. The events were evaluated by a wide range of project partners on a scale of 1 to 5, in which 5 stands for excellent performance. The results of these evaluations fall between scores 4 and 5, averaging 4.7.

The feedback received from the stakeholders also contains additional comments regarding the activities conducted within the framework of the project. 87% of those surveyed, voiced their opinion that the events have had a positive impact in terms of raising awareness regarding PCB management. Further 72% of the stakeholders (government officials, energy, private sector, CSO's, etc.) have requested additional trainings to be held for more participants from different sectors.

"This training program organized within the project, holds particular importance for the Ministry as it aligns with the effective implementation of the newly adopted rules for PCB analysis, maintenance, labeling, and risk management, which became mandatory for private companies in Georgia from 20th December 2022. These requirements, integrated via amendments to the Technical Regulation on Hazardous Waste Collection and Treatment, demand compliance from organizations handling or generating used oils, electrical transformers, or other equipment containing PCBs " – representative of the Ministry of Environmental Protection

"With this legislative initiative, Georgia has taken an important step towards sound management of chemical substances and is on its way to fulfilling the requirements of the Stockholm Convention" – representative of the Ministry of Environmental Protection and Agriculture.

"In a system designed to promote the safety and well-being of young people, it is essential to prioritize youth engagement in casework. Including youth in the management of PCBs is a step in the right direction. Their unique perspectives and enthusiasm can help drive meaningful change and inspire future generations to prioritize environmental protection."

3. Please provide any **relevant stakeholder consultation** documents.

- 9227_Stakeholder_Workshop_to Validate_Selected_PCB_Decontamination_Technology
- 9227_Report_on_Stakeholders_Workshop_for_Key_Stakeholders_“Policy_and_Guidance_for_PCB_Management_in_Georgia”
- 9227_Awareness_Raising_Activities_Event_in_East_Georgia
- 9227_Report_on_Project_Eighth_Steering_Committee_Meeting
- 9227_Report_on_Project_Coverage_PCB
- 9227_Training_of_Trainers_for_Inspection_Authority_Regional_Offices_on_Inspection_of_PCB_Regulations_Implementation
- 9227_Project_Workplan 2023
- 9227_Annual_Progress_report
- 9227_Call_to_select_an_operator

VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress achieved on implementing gender-responsive measures** and **using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),.

In appreciation of the fact that the perception of equality between the sexes is an ongoing process, the present trend is to turn away from an approach to equal opportunities based on positive discrimination, and to replace it with efforts to raise awareness of the wider issues involved. For considering importance of gender mainstreaming, gender

analysis was conducted during project preparation and findings and recommendations from the analysis have been used during project implementation.

Overall, the participation rate of women across all project activities is approximately 40%. The project ensures that a source of environmental risk (PCBs) is removed. This will positively impact both male and female population. Incidentally it shall be noticed that it is well known that PCBs accumulate in breast milk, therefore the elimination of PCB sources from the environment could have proportionally a wider beneficial impact on pregnant women and infants during the lactation period of their life. As for mainstreaming gender into organizational direction, project staff has ensured that the new job posts made available under this project, or as an effect of the project implementation, are equally shared among female and male. It is noteworthy that the project provides equal opportunities based not only on gender identity, but also for people representing all minorities and social backgrounds.

Project Steering Committee consists of both male and female members (4 male and 7 female) and project staff makes sure that men and women were equally engaged in the following trainings and awareness raising activities:

- PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Energo-Pro Georgia and Georgia State Electrosystem
- PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Industries
- PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Tbilisi electric power generation and distribution company “JSE Telasi”
- PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Inspection authority
- Awareness raising activities event in East Georgia

VII. Knowledge Management

1. Using the previous reporting period as a basis, please elaborate on any **knowledge management activities / products**, as documented at CEO Endorsement / Approval.

Project is focused on long-term results, therefore awareness raising has been one of the key concerns during implementation process. A project webpage has been created, where information on project implementation and knowledge materials are uploaded.

During this reporting period:

- One (1) awareness raising activity has been conducted in Kakheti region of Georgia. Specifically, an event was held in Telavi and visibility materials related to the project were disseminated during the event on March 16, 2023, with participation of 46 participants from Telavi State University. 14 women and 6 men (70% of female participation) attended the awareness raising activity.
- 150 (a) kits including t-shirts, cloth bags, cups, pencils and notebooks, and (b) fact sheets/infographics were distributed to participants at the awareness raising event.
- One (1) radio program has been prepared and broadcasted on radio “Adjara” regarding the project activities, the progress made and the next steps.

2. Please list any **relevant knowledge management mechanisms / tools** that the project has generated.

- 9227_Awareness_Raising_Materials
- 9227_Technical_Guideline_for_The_Accident_Preparedness_and_Emergency_Response
- 9227_Technical_Guideline_on_Standard_Sampling_and_Analysis_of_Dielectric_Oil

- 9227_Technical_Guidelines_for_the_Management_of_PCB_Contaminated_Equipment_and_Oil
- 9227_Technical_Guidelines_on_Procedures_Aimed_at_Preventing_Oil_Release_and_Cross_Contamination
- 9227_Resolution_N575

VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes achieved/observed** with regards to project implementation.

Project team and implementing agency cooperates quite closely with the Ministry of Environmental Protection and Agriculture (MEPA) and with project partners so that implementation process does not leave possibilities for significant gaps in the project implementation. In the future there may be challenges to some activities but the project team has strong track record of successfully implementing similar projects.

In FY23, the Project achieved the enforcement of a law planning obligations for PCB owners to test, monitor and treat transformers contaminated by PCBs. This major milestone will pave the way to sustainable management of PCBs in Georgia and will ensure the sustainability of an in-country solution for PCB decontamination.

The project developed a matrix presenting costs and benefits of various PCB decontamination technologies, including export of PCB abroad and various in-country solutions. In 2022, MEPA required extensive consultations and time to confirm the preferred technology. Once the preferred option was confirmed, a competitive call was launched by MEP) to select an operator to host and operate PCB decontamination technology in Georgia. One offer was received in June 2023.

In addition, the selection of a private operator for an in-country PCB decontamination solution required sound information regarding the potential economic outcomes of the activities. The planned inventory on 1,000 samples from transformers was successfully conducted in 2020 and 2021. However, the results of this initial inventory did not show high quantities of contaminated equipment. In Georgia, there are 11,000 transformers in the country. In light of this result, MEPA requested that the Project undertakes an additional sampling campaign of 1,000 transformers in Western Georgia. The ongoing inventory of an additional 1,000 samples from transformers will contribute to evaluate the expected quantities of PCBs in Georgia, confirm the economic outcomes of the PCB decontamination for the operator and select the operational capacity of the technology accordingly. Once these aspects are duly clarified, UNIDO will initiate the procurement process for the PCB decontamination technology and services. This process will require at least 6 months. In addition, the project aims to accompany the decontamination process for at least 6 months, to ensure that the expected environmental and social safeguards are in place and that decontamination is conducted in an environmentally-sound manner.

To this end, a one-year extension may be requested by UNIDO and the Project Steering Committee in Q4 2023.

The selection of the operator is ongoing and procurement of decontamination technology and/or services could be launched in Q4 2023.

2. Please briefly elaborate on any **minor amendments**⁵ to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

<input type="checkbox"/>	Results Framework	
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⁵ As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

<input type="checkbox"/>	Components and Cost	
<input type="checkbox"/>	Institutional and Implementation Arrangements	
<input type="checkbox"/>	Financial Management	
<input type="checkbox"/>	Implementation Schedule	2-year extension granted to the project in FY22, an additional one-year extension will be requested
<input type="checkbox"/>	Executing Entity	
<input type="checkbox"/>	Executing Entity Category	
<input type="checkbox"/>	Minor Project Objective Change	
<input type="checkbox"/>	Safeguards	
<input type="checkbox"/>	Risk Analysis	
<input type="checkbox"/>	Increase of GEF Project Financing Up to 5%	
<input type="checkbox"/>	Co-Financing	
<input type="checkbox"/>	Location of Project Activities	
<input type="checkbox"/>	Others	

3. Please provide progress related to the **financial implementation** of the project.

In December 2022, 622,550 USD were obligated across technical outputs to increase the scope of services of sampling campaign of additional 1000 transformers and provide additional capacity-building and awareness raising. These additional funds were allocated to executing partner RECC

IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for the remaining duration of the project, as per last approved project extension. Please expand/modify the table as needed.

Please fill in the below table or make a reference to a file, in case it is submitted as an annex to the report.

Outputs by Project Component	2023		2024	GEF Grant Budget Available (US\$)
	Q3	Q4	Q1	
Component 1 – Legal, institutional and capacity strengthening				
Outcome 1.1: Regulatory instruments and guidelines for PCB management				258.84
Output 1.1.1 Training of PCB holders in implementing the new legislation on PCB management				
Output 1.1.2: Development of technical guidelines covering all stages of PCB life-cycle				
Outcome 1.2. Capacity for PCB regulation enforcement created				
Output 1.2.1: Training of PCB holders in implementing the new legislation on PCB management				
Output 1.2.2: Upgrading government capacity to enforce PCB regulations, including PCB information management				

Component 2: Management and disposal of equipment containing high concentration PCB oils				
Outcome 2.1: process for managing high-risk PCBs established				259,021.18
Output 2.1.1 .Verify pure PCB equipment and manage them safely until replacement				
Outcome 2.2: Reduction of health and environmental risks locally and globally				
Output 2.2.1.: Transportation and disposal of 300 tons of PCB oil including associated equipment				
Component 3 – Technology transfer for long lasting PCB management capacity in the electricity distribution sector				
Outcome 3.1. PCB holders fully competent in PCB management				107,000.00
Output 3.1.1: Detailed inventory of the PCB containing transformers in all industrial sectors				
Outcome 3.2: workers health and environmental performance of sectors increased				
Output 3.2.1: Updated transformer maintenance with PCB management in place				
Outcome 3.3: Technology transfer capacity established				1,614,498.15
Output 3.3.1: Procurement and testing of mobile PCB de-contamination technology				
Outcome 3.4: Sustainable PCB processing introduced in Georgia				
Output 3.4.1: 1,000 tonnes of PCB containing oil rendered harmless in electricity distribution network				
Component 4 - Monitoring and evaluation				
Outcome 4.1: Assessment of the impact of project activities including lessons learned				
Output 4.1.1. Project impact indicators designed, applied and project implementation monitored and evaluated				12,489.40
PMC				51,311.12

X. Synergies

1. Synergies achieved:

Project will build synergies with relevant projects (NIP update; Reduction of industrial persistent organic pollutant chemicals in manufacturing and recycling sectors through life-cycle approaches in Georgia) implementing in the country related to the POPs management.

3. Stories to be shared (Optional)

XI. GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate.

Web mapping applications such as [OpenStreetMap](#) or [GeoNames](#) use this format. Consider using a conversion tool as needed, such as: <https://coordinates-converter.com>

Please see the Geocoding User Guide by clicking [here](#)

Location Name	Latitude	Longitude	Geo Name ID	Location and Activity Description
Tbilisi	41.69411	44.83368	611717	
Telavi	41.91978,	45.47315	911694	
Kutaisi	42.26791	42.69459	613607	
Zugdidi	42.5088	41.87088	610824	
Ozurgeti	41.92442	42.00682	612536	
Batumi	41.64228	41.63392	615532	
Chiatura	42.29806	43.29889	615211	
Zestaponi	42.10916	43.03602	610864	
Senaki	42.27042	42.0675	612053	
Kobuleti	41.82143	41.77921	613762	
Samtredia	42.1537	42.33517	612126	

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate.



Tbilisi ca. 491 m 611717 P PPLC capital of a political entity Georgia GE » T'bilisi 51 population : 1049498 41.69411, 44.83368	Kutaisi ca. 153 m 613607 P PPLA seat of a first-order administrative division Georgia GE » Imereti 66 population: 135201 42.26791, 42.69459	Telavi ca. 722 m 611694 P PPLA seat of a first-order administrative division Georgia GE » Kakheti 67 » Telavi 7667581 population : 19599 41.91978, 45.47315
Zugdidi ca. 111 m 610824 P PPLA seat of a first-order administrative division Georgia GE » Samegrelo and Zemo Svaneti 71 » Zugdidi 610823 population : 41494 42.5088, 41.87088	Ozurgeti ca. 84 m 612536 P PPLA seat of a first-order administrative division Georgia GE » Guria 65 population : 14672 41.92442, 42.00682	Batumi ca. 7 m 615532 P PPLA seat of a first-order administrative division Georgia GE » Achara 04 population : 172100 41.64228, 41.63392
Chiatura ca. 495 m 615211 P PPL populated place Georgia GE » Imereti 66 Population: 12803 42.29806, 43.29889	Zestaponi ca. 168 m 610864 P PPLA2 seat of a second-order administrative division Georgia GE » Imereti 66 population : 25891 42.10916, 43.03602	Senaki ca. 36 m 612053 P PPLA2 seat of a second-order administrative division Georgia GE » Samegrelo and Zemo Svaneti 71 population : 27752 42.27042, 42.0675
Kobuleti ca. 3 m 613762 P PPLA2 seat of a second-order administrative division Georgia GE » Achara 04 population : 18600 41.82143, 41.77921	Samtredia ca. 23 m 612126 P PPL populated place Georgia GE » Imereti 66 population : 28748 42.1537, 42.33517	

EXPLANATORY NOTE

1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2022 – 30 June 2023.
2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
4. **Results-based management:** The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings	
Highly Satisfactory (HS)	Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (MS)	Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits.
Moderately Unsatisfactory (MU)	Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives.
Unsatisfactory (U)	Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits.

Implementation Progress (IP)	
Highly Satisfactory (HS)	Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of <u>most</u> components in <u>not</u> in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan.

Risk ratings	
Risk ratings will assess the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:	
High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
Moderate Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks.