

## Project Implementation Report

(1 July 2021 – 30 June 2022)

<b>Project Title:</b>	PCB-Free Electricity Distribution in Georgia
<b>GEF ID:</b>	9227
<b>UNIDO ID:</b>	150214
<b>GEF Replenishment Cycle:</b>	GEF-6
<b>Country(ies):</b>	GEORGIA
<b>Region:</b>	ECA - Europe and Central Asia
<b>GEF Focal Area:</b>	Chemicals & Waste (C&W)
<b>Integrated Approach Pilot (IAP) Programs<sup>1</sup>:</b>	IAP-Commodities; IAP-Cities
<b>Stand-alone / Child Project:</b>	Stand-alone project
<b>Implementing Department/Division:</b>	ENV / IPM
<b>Co-Implementing Agency:</b>	N/A
<b>Executing Agency(ies):</b>	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
<b>Project Type:</b>	Full-Sized Project (FSP)
<b>Project Duration:</b>	48 months
<b>Extension(s):</b>	N/A
<b>GEF Project Financing:</b>	3.910.000 USD
<b>Agency Fee:</b>	371.450 USD
<b>Co-financing Amount:</b>	56.095.000 USD
<b>Date of CEO Endorsement/Approval:</b>	8/11/2017
<b>UNIDO Approval Date:</b>	10/12/2017
<b>Actual Implementation Start:</b>	1/11/2018
<b>Cumulative disbursement as of 30 June 2022:</b>	1,220,460
<b>Mid-term Review (MTR) Date:</b>	6/30/2021
<b>Original Project Completion Date:</b>	1/11/2022
<b>Project Completion Date as reported in FY21:</b>	1/11/2022

<sup>1</sup> Only for **GEF-6 projects**, if applicable

<b>Current SAP Completion Date:</b>	1/11/2024
<b>Expected Project Completion Date:</b>	1/11/2024
<b>Expected Terminal Evaluation (TE) Date:</b>	12/1/2023
<b>Expected Financial Closure Date:</b>	12/1/2024
<b>UNIDO Project Manager<sup>2</sup>:</b>	BENABBAS Lamia

## I. Brief description of project and status overview

<b>Project Objective</b>		
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
82	Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern.	x1,100 metric tons oils consisting of 100 tons pure PCBs in approximate 300 tons of equipment and 1,000 tons of PCB contaminated oils.

<b>Baseline</b>
<p>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 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.</p> <p>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.</p> <p>Baseline projects:</p> <p>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</p>

<sup>2</sup> Person responsible for report content

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.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY22. Please also provide a short justification for the selected ratings for FY22.

In view of the GEF Secretariat’s intent to start following the ability of projects to adopt the concept of adaptive management<sup>3</sup>, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY21, in the last column.

Overall Ratings <sup>4</sup>	FY22	FY21
Global Environmental Objectives <b>(GEOs)</b> / Development Objectives <b>(DOs)</b> Rating	Satisfactory (S)	Satisfactory (S)
No in the rating change since FY2		
Implementation Progress <b>(IP)</b> Rating	Satisfactory (S)	Satisfactory (S)
No change in the ratings since FY21		
Overall <b>Risk</b> Rating	Low Risk (L)	Low Risk (L)
No change in the ratings since FY21		

## 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.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY22
<b>Component 1 – Legal, institutional and capacity strengthening</b>				

<sup>3</sup> Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

<sup>4</sup> 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

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 has been 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" was prepared and submitted for approval.</p> <p>The purpose of the presented draft resolution is to introduce sound management of waste, containing PCBs.</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	Technical guidelines are delivered to the beneficiary (Ministry of Environment protection and Agriculture) and they are well accepted/received  Target reached, no additional activity in FY 2022
<b>Outcome 1.2: Capacity for PCB regulation enforcement created</b>				
Output 1.2.1: Training of PCB holders and state inspectors in implementing the guidance	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.	No training on PCB management and inspection has been ever carried out for PCB holders and state inspectors	At least 100 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.	Training sessions for key technical staff of four (4) sectors: Railway, Metro, Port and Industry were conducted. (Annex 1)  59 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.
Output 1.2.2: Upgrading government capacity to enforce PCB regulations, including PCB	Availability of a PCB database compliant with UN and EU rules on PCB.  Availability of dedicated staff for the enforcement of PCB legislation at	The capacity of the government to enforce PCB regulation is missing, as a specific	A team dedicated to the enforcement of PCB regulation established at the Ministry of Environmental	Database of electric equipment is developed in accordance with the inventory process. The database has been finalized and shared

information management	Ministry of Environment and Natural Resources Protection	regulation on PCB is missing	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 female and male in the enforcement teams	with the Ministry of Environmental Protection and Agriculture.  Draft PCB regulation is developed and submitted to the Ministry for approval  Additional inventory will be conducted in FY 2023
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	Public awareness materials were developed and mostly distributed to stakeholders during training sessions.  Project web-site is established which provides information on project activities and also general info about PCB pollution  Radio program has been prepared and broadcasted  Project infographics were renewed and published  Additional awareness raising activities will be conducted in FY 2022
<b>Component 2 – Management and disposal of equipment containing high concentration PCB oils</b>				
Outcome 2.1: Process for managing high-risk PCBs established.				
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	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	All identified equipment with high PCB concentration are labelled with warning stickers (based on 3000 inventoried equipment and dextil screening results), however additional up to 1000 samples inventory and testing has to be finalised and labelled accordingly

		by the survey carried out at project preparation stage		Complementary inventory to be completed in FY 2023
<b>Outcome 2.2: Reduction of health and environmental risks locally and globally</b>				
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 inventory completed
<b>Component 3 – Technology transfer for long lasting PCB management capacity in the electricity distribution sector</b>				
<b>Outcome 3.1: PCB holders fully competent in PCB management</b>				
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	Only a preliminary inventory carried out during NIP and PPG stage	At least 3000 transformers or other electrical equipment tested for PCB, by means of quantitative analysis. A database on PCB inventory developed, accessible on the web for uploading and downloading data upon user specific access	Inventory process of 1000 transformers was carried out. The samples have been tested by analyser in the laboratory  1000 samples are tested by Dexsil L2000 analyser in the laboratory  Additional 1000 will be tested in FY 2023
<b>Outcome 3.2: Workers health and environmental performance of sector increased</b>				
Output 3.2.1: Updated transformer maintenance with PCB management in place	Availability of activity and site-inspection reports on the safe management of PCB  Approved PCB Management Plan	The electric power sector has procedures and standards for the management of transformers and dielectric oil, which however do not	Procedures for the sampling and analysis of PCB in dielectric oil added to the current procedures for periodic maintenance of transformers, approved by the government and the	- Special guidance document has been elaborated: Procedures aimed at preventing oil release and cross contamination

	Number of persons trained: male/female	include management of PCB contaminated transformers or oil	electric power sector and implemented  Target: 150 trainees: 100 male/50 female	
<b>Outcome 3.3: Technology transfer capacity established</b>				
Output 3.3.1: Procurement and testing of mobile PCB de-contamination technology	Availability of a PCB decontamination technology	No technology for the treatment of PCB contaminated equipment	Mobile decontamination technology operational	PCB de-contamination technology will be procured soon after assessment of inventory results
<b>Outcome 3.4: Sustainable PCB processing introduced in Georgia</b>				
Output 3.4.1: 1,000 tons of PCB containing oils rendered harmless in electricity distribution network	<p>Availability of a PCB treatment log with quantity of dielectric oil treated, initial and final concentration of PCB</p> <p>Number of tons of PCBs decontaminated</p> <p>Number of tons of material recycled</p> <p>Value of material recycled</p>	No PCB equipment or PCB contaminated oil treated or disposed of until now	<p>Around 1000 tonnes of dielectric oil contaminated by PCB treated, with the destruction of PCBs contained therein and the regeneration of oil in compliance with international standard for dielectric oil</p> <p>3000 tonnes of material recycled</p> <p>Tariff policies for the treatment of PCB contaminated dielectric oil after project end established</p>	1000 tons of PCB containing oil will be treated
<b>Component 4 – Monitoring and evaluation</b>				
<b>Outcome 4.1: Assessment of the impact of project activities including lessons learned</b>				
Output 4.1.1: Project impact indicators designed, applied and project implementation monitored and evaluated	<p>Availability of PIRs with UNIDO GEF rules on project reporting and monitoring</p> <p>Availability of inception report, MTE and TE report, financial audit</p> <p>Evidence that the impact on gender mainstreaming has been measured</p>		<p>Project knowledge management system in place</p> <p>Inception workshop held within 2 months from project start</p> <p>PIR drafted and approved</p> <p>Mid term evaluation carried out and approved within 30</p>	<p>70 %</p> <p>7 Steering Committee Meeting have been organized</p> <p>92 participants (53 Female and 39 Male)</p> <p>MTR report has been prepared in February 2021</p>



			months from project starting	
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### III. Project Risk Management

1. Please indicate the overall risk management: (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 21	(i) Risk level FY 22	(i) Mitigation measures	(ii) Progress to-date	New defined risk <sup>5</sup>
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.	(M)	(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	(H)	(M)	A successful cooperation has been already secured with electric enterprises owning most of the PCB contaminated equipment. The project will however envisage the	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	<input type="checkbox"/>

<sup>5</sup> New risk added in reporting period. Check only if applicable.

	equipment in improper way before project implementation			enforcement of custom surveillance and inspection carried out by the authority to prevent any improper disposal or export of PCB contaminated transformer	obliged to declare about absent reasons in front of inspection authorities. PCB Management Plan has been elaborated and validated and is in the process of approval.	
4	Management: Timing for enacting a new legislation on PCB too long for having the regulation in place during project implementation	(M)	(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. All the respective institutions including the Ministry of Economy and Sustainable Development, the Ministry of Health, the Ministry of the Regional Development and Infrastructure, the Ministry of Finance and Custom Service, have been trained on the legal aspects and the new requirement of the PCB management. The environmental inspectorate, responsible body for law enforcement has also been involved in the development of PCB regulation legislation and the key personal is well aware of the upcoming tasks and responsibilities.	<input type="checkbox"/>
5	Management: Weak coordination among stakeholders	(M)	(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. The expanded SC meetings are organized on the result bases once a year	<input type="checkbox"/>

					which serve as a coordination platform for all key stakeholders involved.	
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	(H)	(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	(H)	(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.

N/A

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

Project activities were delayed due COVID-19, which caused overall delay in project implementation. The pandemics especially challenged full scale implementation of the planned awareness raising activities targeting broad spectrum of stakeholders and general public. In particular, in person meetings, trainings, workshops or any kind of gatherings were restricted most of the time. In addition, cooperation with companies became more complicated, as our experts were not authorized to enter the company premises to conduct the inventory or to negotiate the selection process of the decontamination technology.

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

N/A

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

## Recommendations

- 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.
- Continue training on guidelines
- Further trainings to be conducted for personnel in the field handling transformers
- Trainings 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

## Actions taken:

- An amendment to the execution agreement with the executing agency of the Project, should be signed by Q4 2022 to deploy an additional sampling campaign and further expand the inventory
- The amendment also plans additional training on PCB management for the private sector, from several industrial sectors in Georgia
- Awareness raising will also be continued and further expanded to national and local authorities of several regions, and to the private sector of several industrial sectors
- An international mission will take place in September 2022 for national representatives of Georgia to visit PCB decontamination facilities in Europe and examine the best environmental and economic solution for decontamination activities in Georgia

Actions taken are in line with recommendations of the Ministry of Environmental Protection and Agriculture in Georgia, also head of the Project Steering Committee.

#### 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 <b>Inventory</b> 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 <b>transportation</b> 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	All related risks are minimized due to guidelines requirements and awareness	Samples transportation from companies to the testing location was monitored regularly by

	transportation	campaigns.	routine communication and with verification of guidance principles related to transportation safety
	Deterioration of ambient air due to <b>transportation</b> activities	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	
	<b>Risks related to treatment</b> of PCB contaminated electric equipment and oil by mobile PCB de-contamination technology	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness campaigns.	
	Deterioration of ambient air while <b>treatment</b> of PCB contaminated electric equipment and oil by mobile PCB de-contamination 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 <b>treatment</b> of PCB contaminated electric equipment and oil by mobile PCB de-contamination 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	Not applicable at this stage. However, all related risks are minimized due to guidelines requirements and awareness	All stakeholders who will participate in the project activities, will be registered to ensure there is minimal risks for

	residents nearby)	campaigns.	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)			

## V. Stakeholder Engagement

1. Please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the projects (based on the description of the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

Project has improved the effectiveness 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, private sector and CSOs. In total 5 trainings have been undertaken on Theoretical and Practical Issues of Legislation and Guidelines with participation 59 participants (23 female and 36 male).

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 2022-2023 work plan. Inventory team continues collection of samples of additional 1000 transformers.

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.).

To collect 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, private sector, CSOs, etc.) have requested additional trainings to be held for more participants from different sectors.

“The project is an important step in the right direction in ensuring the sound PCB management in Georgia, the strengthened capacity will guide a safer and more sustainable development of PCB free electricity distribution system in Georgia” – representative of the Ministry of Environmental Protection and Agriculture.

“For us, especially important are the training opportunities the project has provided for our employees. They



can now apply the knowledge they acquired, during their day-to-day operations and contribute to safer working conditions and positively affect the environment” – noted a representative of a private company in the energy sector.

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

Minutes and reports from Stakeholder Meeting is attached:

- GEF 9227\_Fourth Steering Committee Meeting
- GEF 9227\_Fifth Steering Committee Meeting
- GEF 9227\_Sixth Steering Committee Meeting
- GEF 9227\_Seventh Steering Committee Meeting
- GEF 9227\_PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Industries
- GEF 9227\_PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Georgian Railway
- GEF 9227\_PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Ports
- GEF 9227\_PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Metro
- GEF 9227\_Training in PCB Screening
- GEF 9227\_Awareness raising activities event in East Georgia

## **VI. Gender Mainstreaming**

**1. Please provide information on progress on gender-responsive measures and gender-sensitive indicators as documented at CEO Endorsement/Approval (in the project results framework or 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 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 Industries

PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Georgian Railway

PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Ports

PCB Training on Theoretical and Practical Issues of Legislation and Guidelines for participants from Metro

Training in PCB Screening

Awareness raising activities event in East Georgia

## VII. Knowledge Management

1. Please elaborate on any **knowledge activities/ products** (when applicable), as outlined in knowledge management approved 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 10, 2022, with participation of 20 participants from different regions of Georgia, including decision makers. 14 women and 6 men (70% of female participation) attended the awareness raising activity.
- Thirty (30) (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.
- Project infographics were renewed and published
- One (1) article in the scientific magazine Georgian Energy News has been published, titled “Determination of Polychlorinated Biphenyls in Dielectric Oils in Appliances in the Energy Sector of Georgia”, which described the current situation regarding PCB management in Georgia and the current developments.

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

- 9227\_Awareness\_raising\_materials
- 9227\_Technical\_guidelines\_management\_pcb\_contaminated\_equipment\_and\_oil
- 9927\_Technical\_guidelines\_Procedures\_Preventing\_oil\_Release\_and\_Cross\_Contamination

- 9227\_Technical\_guidelines\_Standard\_Sampling\_Analysis\_Dielectric\_Oil
- 9227\_Technical\_guidelines\_Accident\_Preparedness\_Emergency\_Response\_Guidelines
- 9227\_PCB\_Management\_Plan
- 9227\_Techno\_economic\_study
- 9927\_Techno\_economic\_study\_excel

Web-page: [www.pcbfreegeorgia.com](http://www.pcbfreegeorgia.com)

## 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.

The project implementation is proceeding according to the work plan developed at the project initial stage and all activities/outcomes are mostly implemented successfully. Project team and implementing agency cooperates quite closely with the Ministry of Environmental Protection and Agriculture 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 related to PCB decontamination in Georgia. Several options are currently envisaged by the Project, each to be examined in light of environmental risks and cost-effectiveness:

- Establishing an in-country solution for PCB decontamination in Georgia offers long-lasting opportunities for PCB decontamination beyond the project timeframe. Georgia has an incinerator to process PCB-free oil once decontaminated. However, PCB-decontamination technologies require intensive transfer of knowledge and extensive environmental permits to operate. The cost of building a facility able to host a dichlorination unit is rather high, while the said unit may represent a risk of soil contamination. There may be high operational costs associated to the units as well, while their financial viability depends on a steady flow of incoming transformers to be decontaminated, in high quantities and for a price that will ensure the viability of the operations. At this stage, regulations imposing that owners of transformers test and subsequently decontaminate their equipment at their own costs is not in force in Georgia.
- Exporting PCBs for decontamination abroad in already established industries is a cost-effective solution, in line with the project timeframe. This will however not ensure the availability of a technology in Georgia for future use, should additional quantities of PCBs be found in the coming years.
- Georgia has the potential to become a regional center for PCB decontamination, should the technologies be established in the country. However, legislation still does not allow import of hazardous waste. This could however be amended, should the need arise.

2. Please briefly elaborate on any **minor amendments**<sup>6</sup> to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

<sup>6</sup> 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%.

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	NA
<input type="checkbox"/>	Components and Cost	NA
<input type="checkbox"/>	Institutional and Implementation Arrangements	NA
<input type="checkbox"/>	Financial Management	NA
<input checked="" type="checkbox"/>	Implementation Schedule	2 years extension
<input type="checkbox"/>	Executing Entity	NA
<input type="checkbox"/>	Executing Entity Category	NA
<input type="checkbox"/>	Minor Project Objective Change	NA
<input type="checkbox"/>	Safeguards	NA
<input checked="" type="checkbox"/>	Risk Analysis	Some risks are considered lowered in FY 2022
<input type="checkbox"/>	Increase of GEF Project Financing Up to 5%	NA
<input type="checkbox"/>	Co-Financing	NA
<input type="checkbox"/>	Location of Project Activities	NA
<input type="checkbox"/>	Others	NA

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

Minor expenditures for international expertise in FY 2022. Amendment to increase the scope of RECC for execution of capacity-building and awareness raising is ongoing in July 2022. The procurement of PCB technology will take place after decision from the Ministry in Georgia

## 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	2022				2023				2024				GEF Grant Budget Available (US\$)	
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
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			<input type="checkbox"/>										649.2	
Output 1.1.2: Development of technical guidelines covering all stages of PCB life-cycle			<input type="checkbox"/>	<input type="checkbox"/>										
Output 1.2.1: Training of PCB holders and state inspectors in implementing the guidance			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Outcome 1.2: Capacity for PCB regulation enforcement created														
Output 1.2.2: Upgrading government capacity to enforce PCB regulations, including PCB information management			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Output 1.2.3: Undertake targeted awareness raising for high-risk population groups			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

Component 2 – Management and disposal of equipment containing high concentration PCB oils													
Outcome 2.1: Process for managing high-risk PCBs established.													
Output 2.1.1: Verify pure PCB equipment and manage them safely until replacement			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					690,453.41
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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					107,000.00
Outcome 3.2: Workers health and environmental performance of sector increased													
Output 3.2.1: Updated transformer maintenance with PCB management in place				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Outcome 3.3: Technology transfer capacity established													
Output 3.3.1: Procurement and testing of mobile PCB de-							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				1,745,376.09

contamination technology													
Outcome 3.4: Sustainable PCB processing introduced in Georgia													
Output 3.4.1: 1,000 tons of PCB containing oils rendered harmless in electricity distribution network							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	140,000

## X. Synergies

### 1. Synergies achieved:

There are ongoing consultations with the relevant stakeholders in the power sector to leverage GEF financing with public-private sector investments.

### Stories to be shared (Optional)

N/A

## EXPLANATORY NOTE

- Timing & duration:** Each report covers a twelve-month period.
- Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the division chief and PTC director.
- 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	
<b>Highly Satisfactory (HS)</b>	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”.
<b>Satisfactory (S)</b>	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.
<b>Moderately Satisfactory (MS)</b>	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.
<b>Moderately Unsatisfactory (MU)</b>	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.
<b>Unsatisfactory (U)</b>	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.
<b>Highly Unsatisfactory (HU)</b>	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)	
<b>Highly Satisfactory (HS)</b>	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”.
<b>Satisfactory (S)</b>	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.
<b>Moderately Satisfactory (MS)</b>	Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
<b>Moderately Unsatisfactory (MU)</b>	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.
<b>Unsatisfactory (U)</b>	Implementation of <u>most</u> components in <u>not</u> in substantial compliance with the original/formally revised plan.
<b>Highly Unsatisfactory (HU)</b>	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:	
<b>High Risk (H)</b>	There is a probability of greater than <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face high risks.
<b>Substantial Risk (S)</b>	There is a probability of between <b>51%</b> and <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
<b>Moderate Risk (M)</b>	There is a probability of between <b>26%</b> and <b>50%</b> that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.



<b>Low Risk (L)</b>	There is a probability of up to <b>25%</b> that assumptions may fail to hold or materialize, and/or the project may face only low risks.
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