



## Project Implementation Report

(1 July 2022 – 30 June 2023)

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| <b>Project Title:</b>  | Environmentally Sound Management and Final Disposal of Polychlorinated Biphenyls (PCBs) |
| <b>GEF ID:</b>   | 4386  |
| <b>UNIDO ID:</b>   | 140391  |
| <b>GEF Replenishment Cycle:</b>                              | GEF-5   |
| <b>Country(ies):</b>   | Ukraine   |
| <b>Region:</b>   | ECA - Europe and Central Asia   |
| <b>GEF Focal Area:</b>                                       | Persistent Organic Pollutants (POPs)  |
| <b>Integrated Approach Pilot (IAP) Programs<sup>1</sup>:</b> | IF applicable, please select:<br>IAP – Commodities, IAP – Cities or IAP – Food Security |
| <b>Stand-alone / Child Project:</b>                          | IF a child project, please indicate the name of the parent programme                    |
| <b>Implementing Department/Division:</b>                     | ENV / IPM   |
| <b>Co-Implementing Agency:</b>                               |   |
| <b>Executing Agency(ies):</b>                                | State Ecological Academy (SEA) of Ministry of Ecology and Natural Resources             |
| <b>Project Type:</b>   | Full-Sized Project (FSP)  |
| <b>Project Duration:</b>                                     | 48  |
| <b>Extension(s):</b>   | 3   |
| <b>GEF Project Financing:</b>                                | USD 5,250,000   |
| <b>Agency Fee:</b>   | USD 525,000   |
| <b>Co-financing Amount:</b>                                  | USD 21,000,000  |
| <b>Date of CEO Endorsement/Approval:</b>                     | 8/14/2014   |
| <b>UNIDO Approval Date:</b>                                  | 11/20/2015  |
| <b>Actual Implementation Start:</b>                          | 2/8/2016  |
| <b>Cumulative disbursement as of 30 June 2022:</b>           | USD 2,312,682.16  |
| <b>Mid-term Review (MTR) Date:</b>                           | 5/23/2021   |

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

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| Original Project Completion Date:            | 8/14/2018        |
| Project Completion Date as reported in FY22: | 12/31/2023       |
| Current SAP Completion Date:                 | 12/31/2023       |
| Expected Project Completion Date:            | 12/31/2025       |
| Expected Terminal Evaluation (TE) Date:      | 2/28/2025        |
| Expected Financial Closure Date:             | 12/31/2025       |
| UNIDO Project Manager <sup>2</sup> :         | Rodica Ella Ivan |

## I. Brief description of project and status overview

| Project Objective  |
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| To establish an environmentally sound management (ESM) system for PCBs, improve compliance to PCBs related obligations under the Stockholm Convention (SC) and promote local use of non- combustion technologies in the disposal of 3,000 tons of PCBs contaminated equipment. |

| Baseline   |
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| Ukraine is a Party to the Stockholm Convention and, accordingly, has developed a National Implementation Plan (NIP), encompassing the national strategy, policy, objectives and priorities for the implementation of the Stockholm Convention. There is a need to develop practical measures for implementing the NIP to address national PCB issues and strengthen the capacity of authorities and stakeholders for handling PCBs at all stages of their life cycle |

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>             | FY23                                  | FY22                      |
|--|---------------------------------------|---------------------------|
| Global Environmental Objectives (GEOs) / | <i>Moderately Unsatisfactory (MU)</i> | <i>Unsatisfactory (U)</i> |

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

<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

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| Development Objectives (DOs) Rating  |                           |                          |
| After several delays, the project was finally put on track during the FY21 reporting period which merited a rating of S. However, the crisis in Ukraine impeded the delivery of planned activities including the transfer and assessment of the rotary kiln incineration facility which inhibited the achievement of GEOs/DOs. |                           |                          |
| Implementation Progress (IP) Rating  | <i>Unsatisfactory (U)</i> | <i>Satisfactory (S)</i>  |
| During FY22, several main activities were undertaken including the midterm evaluation and the award of contract for the transfer and assessment of the rotary kiln facility. Stakeholder engagement has been renewed and new PSC was constituted. In this reporting period, 2023, the ongoing war impeded implementation.      |                           |                          |
| Overall Risk Rating  | <i>High Risk (H)</i>      | <i>Moderate Risk (M)</i> |
| With the ongoing crisis, the project is rated as HIGH RISK.  |                           |                          |

## 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.*

| Project Strategy   | KPIs/Indicators   | Baseline  | Target level   | Progress to-date  |
|--|---|---|--|---|
| <b>Component 1 – Institutional, regulatory and human capacity building for PCB management</b>                      |   |   |  |   |
| Outcome 1: Strengthening of legal framework and institutional capacities for efficient PCB management and disposal |   |   |  |   |
| Output 1.1: PCB-related legislation including technical guidelines updated and in place                            | Technical regulations, standards and norms are developed and adopted. Legal instrument for self-reporting of PCBs is enacted. | Legal measures related to chemicals management miss PCBs and PCB-containing equipment. Adoption of SC and EU standards for PCB management is pending. | PCB related legislations are fully in-line with the requirements of the SC. Ukraine has appropriate legal infrastructure which integrates PCB-related measures and requirements of the SC in comprehensive manner. | The documents had been drafted in 2017 by National Experts and submitted to the MENR. They were updated in 2019 and again in 2020 and re-submitted to the MENR. The Parliament is working on a Law for Waste Management, including hazardous waste management. This was given as the reason for the delay in adopting new regulations for PCBs, as it was deemed more effective to first prepare and pass the Law on Waste Management and then other regulations, for example for PCBs. Nevertheless, a Decision by the Council of National Security and Defense of Ukraine from March 2021 which entered into force by the Decree of the |

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|  |   |   |   | President of Ukraine (104/2021) mentions POPs. It states that the MENR, has to develop, amongst others, a methodology for identifying POPs sources, create a National Register on POPs emissions and storage sites, a register of enterprises with PCB-contaminated equipment and storages, as well as inventorize and label PCB-contaminated equipment.   |
| Output 1.2: Staff of government agencies, customs, NGOs and PCB owners trained to implement the regulation | State Ecological Inspectors, Sanitary and Epidemiological Service staffs are trained to implement PCB related regulations. Numbers of PCB owners, scientific community, NGOs are trained on the PCB-related measures. Project staff is trained on how to mitigate human and environmental exposure risks of PCBs. Number of official trained staff (male/female). | The information and knowledge of government staff, particularly inspectors at the local levels on PCB-related enforcement requirements is scarce. Project staff is not trained on sampling of oil containing equipment and they are not aware of human health and environmental exposure risks, particularly their mitigation and emergency response. | Local environmental inspectors representing all regions of Ukraine including inspectors from maritime organization will be trained to be trainers in their respective offices.<br>Directly trained: 50 people<br>Trained at the national level: 500 people<br>Male/Female ratio is recorded at project start and closure. | Training workshops held in Lviv, Dnipro, Odessa, Kharkiv and Kyiv for key stakeholders (government representatives, NGOs and PCB owners)   |
| Output 1.3: Methods for PCBs analysis adopted and 3-4 laboratories accredited for PCB analysis             | Numbers of laboratories are accredited for PCB analysis.  | Current laboratory capacity is not enough to handle 10,000 PCB samples. Accreditation of PCB analysis is also missing, thus inspections do not have a scientific background.  | The project is expected to build the necessary laboratory capacity to analyze large amount of PCB samples and to be able to backup regulatory inspections and to monitor PCB releases during the operation. At least 3 laboratories are accredited for PCB analysis.  | The PMU has prepared 3 standard methods to determine PCB content in oils, submitted them to the national standard authority for adoption and authorization.<br><br>These standards were approved with the Order N256 dated from August 15, 2019 by the national standard authority of Ukraine.<br><br>The state authority instructed to adopt these standards from September 1, 2019. These standards were adopted and are in force.<br><br>Two laboratories were accredited to conduct chromatographic analyses to define PCB content in transformer oils, in particular, the two mentioned below:<br><br>Chromatographic Research Laboratory of State Enterprise "Ukrmetrteststandart";<br><br>Ukrainian laboratory of quality and safety of |

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|   |  |  |   | agricultural products.   |
| Output 1.4: ESM system for the use and disposal of PCBs including related occupational safety measures implemented and published in a guideline | Environmentally sound management of PCB-containing equipment is in place which provides guidance on handling, maintenance, phase-out, disposal, occupational and environmental safety measures of PCB-containing electrical equipment. Number of enterprises adopting BAT/BEP. | PCB owners generally believe that their mineral oil containing electrical equipment is free of PCBs. Therefore analysis for PCBs is not undertaken when the equipment is in service. They do not have separate procedures for working with PCB positive and PCB free equipment. Current transformer management | After the implementation of the ESM system cross-contamination of mineral oil transformers will stop. Due to stringent control on PCB-containing equipment PCB releases into the environment will also reduce. 10 enterprises adopting BAT/BEP. | ESM system is operational at the enterprises involved; BAT/BEP introduced at 5 enterprises |

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|  |  | practices allow for further cross-contamination of PCB free equipment.   |   |  |
| Output 1.5: Operating procedures and trainings for enforcement authorities to carry out inspections related to the ESM system standardized | Standardized operating procedures for enforcement authorities are in place.  | Site inspection procedures for enforcement authorities are compiled in order No483 dated 2.10.2012 of MENR. This order contains the checklist of site inspection and forms for reporting. This order is missing inspection procedures for PCB-containing equipment and wastes. | Order No483 dated 2.10.2012 of MENR is amended with checklist of site inspection and forms for reporting PCB-containing equipment and wastes. | In Ukraine, standard operating procedures (SOPs) already exist, including a certified format at the State Ecological Department about how the authorities are to conduct inspections. According to existing in-country procedures, the PMT prepared suggestions for additional points to be included in the inspections related to ESM system for PCBs, and submitted these to the MENR, as these cannot be submitted directly to the State Ecological Department. The MENR, after reviewing, is expected to forward the instructions to the State Ecological Department. Moreover, structural changes at the State Ecological Department were reported during the last 3 years, which may have influenced or may still influence the conducting of inspections.<br><br>Trainings/Workshops have been conducted, with the participation of state ecological inspectors |
| Output 1.6: Emergency response measures developed and in place for transformer fires and leakages  | Emergency response measures for transformer fires are developed and adopted. | Fire brigades do not have appropriate emergency measures for transformer fires, particularly for those that contain PCBs.  | Fire brigades are appropriately prepared for handling transformer fires.  | Measures already exist in Ukraine. Project experts reviewed the measures and reported that further measures were not necessary. This was communicated to UNIDO. Moreover, the Guidelines prepared include a sub-chapter on 'Monitoring of PCB-containing equipment and actions in case of its damages and leakages of PCBs'.   |

| <b>Component 2 – Defining priority measures based on reliable in-depth inventory and national management plan for PCBs</b>   |   |   |  |  |
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| Outcome 2: Establishment of in-depth inventory of the major owners of contaminated equipment and development of the national management plan for PCB disposal          |   |   |  |  |
| Output 2.1: At least 10,000 PCB analysis conducted and organized in a database as an instrument for environment control authorities to plan PCB phase out and disposal | Number, weight, type of equipment with<br>-PCB concentrated oils<br>-PCB contaminated oils<br>-PCB containing wastes.           | There is no accurate information within the Government on PCB amounts in Ukraine.   | 10,000 potentially PCB -containing equipment are analyzed. Information on the number weight and type of equipment and wastes contaminated with PCBs are recorded.<br>The PCB registry database is in place and PCB related information is available for decision making. | 8,600 transformers have been inventorized and samples taken; 1,400 to achieve the foreseen number of 10,000 are yet to be inventorized.  |
| Output 2.2: Inspected equipment labelled and prioritized for decontamination or disposal;  | Number of labeled oil containing equipment. Number of PCB-containing equipment prioritized and selected for Phase-out.          | Transformers and other oil containing equipment that may contain PCBs are not labeled.  | 10,000 oil containing electrical equipment are labeled. 3,000 tones of the PCB-containing equipment are prioritized for phase-out and disposal.  | Screening of the 8,600 samples has taken place. Labels have been prepared by the PMT and provided to the enterprises. Due to the COVID-19 pandemic, and the restrictions in place for movement of people, the enterprises reported that they have not yet labelled the equipment, and the PMT could not visit the enterprises. Further, stakeholders deemed it better to wait for the PCB-analysis results before labelling the equipment. |
| Output 2.3: Current management practices for electrical equipment identified and documented  | The participating companies implementing different management practices for PCB positive and PCB free oil containing equipment. | Currently PCB-owners treat transformers uniformly. They do not test transformer oil for PCBs during service, thus the likelihood of PCB contamination and cross-contamination of transformer oil is present. This activity would record such practices and would recommend alternative transformer maintenance options with the view to immediately stop the risk of further cross-contamination. | Each time a mineral oil transformer is serviced the oil is checked for PCBs. PCB positive and PCB negative transformers are handled differently. Cross contamination of mineral oil transformers ceased.   | Assessment of management practices for electrical equipment to be carried out  |

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| Output 2.4: PCBs phase out and disposal plans developed   | Number of phase out plans developed for PCB-containing equipment.                             | Since transformers are critical devices for the constant supply of electricity, in most cases their immediate replacement cannot be undertaken. Owners of such devices need to plan for maintenance, phase-out and replacement. Project will develop criteria to prioritize what transformers could be disconnected and replaced on short notice to the users and what users need to be involved in planning the schedule for disconnection. | PCB owners integrate the development of PCB phase out plans within their regular operating procedures. The pace of PCB removal from the electrical system gradually increases. Phase-out plans take into consideration environmental, climatic, financial and technical questions during prioritizing equipment for phase-out. During the process of phase-out plan development environmental, climatic, technical and economic aspects are taken into consideration. The target number of phase out plans will be set during implementation. | An inventory database has been developed and the information is being collected, compiled and entered into the database  |
| Output 2.5: Potentially contaminated sites identified and recorded  | Number of potentially PCB-contaminated sites are identified and recorded in the PCB registry. | Potentially PCBs contaminated sites have not yet been recorded.  | Inventory Technical Teams will record any locations where spillages or other signs could be detected that suspect contamination. The collected information will be recorded into the inventory database.  | The identification of potentially contaminated sites is pending  |
| <b>Component 3 – Environmentally sound management system (ESM) and disposal of PCBs including technology transfer and implementation</b>  |   |  |   |  |
| Outcome 3: Demonstration of ESM and disposal of PCBs by decontamination and extension of life cycle of some operational equipment, recycling of mineral oil and secondary metals to enable elimination of PCB releases into the environment |   |  |   |  |
| Output 3.1: Demonstration technologies selected and procured for the decontamination of PCB-contaminated oil  | Numbers of companies with decontamination of mineral oils are procured and operating.         | The only available option currently is export disposal of PCB containing wastes. With this practice valuable mineral oil dielectric is burnt. This increases the CO2 emissions and makes the replacement of transformers even more expensive.  | Two companies adopting best environmental practices for contaminated mineral oil clean and reutilize in the electrical network.   | Based on the Steering Committee decision and conclusion of the international Project consultant, the Project decided not to pursue the purification of contaminated oils. The priority would be the destruction of equipment with high PCB concentration. Existing rotary kiln incineration owned by ECOCENTER will be transferred and assessed for compliance to BAT/BEP provisions of the SC based on set of criteria<br><br>For this reporting period, ECOCENTER has reported that the rotary kiln has been dismantled and is ready to be transferred pending approval of statutory and permitting requirements |



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| <p>Output 3.2:BAT technologies for pre-treatment of PCB-containing wastes selected</p>  | <p>Number of transferred technologies.</p>   | <p>Currently PCB-contaminated wastes are sent for export disposal, which most of the times means incineration. The cost of incineration depends on the weight of the waste sent to the incinerator. With this practices PCB owners pay 6-8 USD/kg for the metal parts of transformers and other PCB-contaminated wastes, while these waste streams can be recovered after the incineration and sold.</p> | <p>PCB-contaminated metal parts will be locally pretreated, cleaned and the valuable copper, steel and aluminum parts sold. This practice will drastically reduce the cost of disposal operations.</p> <p>Two mobile units for the pre-treatment of PCB-containing wastes are procured and are in operation applying BAT/BEP.</p> | <p>BAT technologies for pre-treatment of PCB-containing wastes selected. Existing incineration facility in the country is found to be the most suitable solution as per the nature of the waste matrices inventorized.</p>   |
| <p>Output 3.3:Technology options for the disposal of high concentration PCBs oils and other PCB wastes selected and implemented</p> | <p>The feasibility of local disposal of high concentration PCBs has been demonstrated. Pilot project for solving high concentration PCB disposal through PPP is developed.</p>   | <p>Hazardous Waste management in Ukraine is currently building up. First facility for treating HW through incineration f is expected to start its operation in May 2014.</p>   | <p>Project will assist MENR in forming Public and Private Partnership (PPP) with disposal facilities<br/>One stationary unit is under operation for disposal of high concentration PCBs.</p>  | <p>The most optimal technology for the destruction of concentrated PCBs for Ukraine is the technology of incineration in a rotary kiln.</p> <p>Considering that today there is already a rotary kiln in Ukraine, a contract for the transfer and assessment of the kiln performance for PCB disposal has been awarded to ECO CENTER.</p> |
| <p>Output 3.4:3,000 tons of PCBs oil, PCB-containing equipment and wastes disposed of</p>   | <p>Weight of disposed of PCB.:<br/>-PCB concentrated oils<br/>-PCB contaminated oils<br/>-PCB containing equipment and wastes.<br/>-material recycled.<br/>-commercial value of recycled materials</p> <p>Equivalent CO<sub>2</sub> emission prevented tons/ CO<sub>2</sub>.</p> | <p>Economic and safe disposal is prevented due to lack of local technologies.</p> <p>The price of PCB disposal is high due to international transport and incineration costs.</p>  | <p>3000 tons of PCB containing equipment and wastes.</p> <p>500 tons of high concentration PCBs safely disposed 500 tons of low-PCB contaminated mineral oils regenerated</p> <p>2000 tons of material safely recycled</p>  | <p>This activity will take place Once the facility has been assessed to comply with BAT requirements.</p>  |

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| <p>Output 3.5: Training and awareness raising for relevant stakeholders and PCB owners on ESM system and occupational safety undertaken at country level</p> | <p>Number of training workshops held, number of trained stakeholders (male/female). Project stakeholders and PCB owners know about PCBs, they are aware of their environmental, occupational safety implications.</p> | <p>Currently information of potential project stakeholders and PCB owners on the Best Environmental Practices (BEP) concerning PCBs and potentially PCB-containing equipment is scarce.</p> | <p>Project stakeholders are appropriately trained on the ESM system. Environmental releases of PCB during transformer maintenance and disposal operations are minimized. Occupational health related standards of the ESM are adhered to. Directly trained or participated: 150 people Trained and informed at the national level: 1500 people Male/Female ratio is recorded at project start and closure.</p> | <p>Training (and awareness-raising) has been carried out as shown under Output 1.2, within the framework of workshops.</p> <p>Taking awareness-raising activities of other PCB projects in other countries into consideration, there are several other awareness-raising activities that can be carried out; some examples are as follows:</p> <ul style="list-style-type: none"> <li>• Participation in for example, Environmental Week or other related events/exhibitions;</li> <li>• Articles in newspapers, environmental magazines;</li> <li>• Interview or short introduction of project and PCBs on television, radio;</li> <li>• Short video about project;</li> <li>• Presentations in schools and universities – waste management -&gt; hazardous waste -&gt; PCBs -&gt; PCBs disposal;</li> </ul> |
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**Component 4 – Impact monitoring and evaluation**

**Outcome 4: Adherence to project document and attainment of project objective**

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| <p>Output 4.1: Baseline indicators verified</p>   | <p>Implementation follows the workplan and budget.</p> | <p>Baseline indicators are assessed and documented at project startup.</p> | <p>Monitoring and evaluation team established in due time. All Project reports (APRs, AWP, PIRs) effectively drafted and timely delivered</p> | <p>Project activities are continuously being monitored and all reporting requirements have been met. An online database for PCB tracking and management has been established and is currently being used internally, prior to public release. Additionally, a website was created for the project and printed materials have been disseminated to key project stakeholders and the general public.</p> |
| <p>Output 4.2: Project impact monitoring system, evaluation of the achieved results and introduction of corrections if required</p> |  |  |   |  |
| <p>Output 4.3: Dissemination of project related information and results to local stakeholders</p>                                   |  |  |   |  |

## II. 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.

*Describe in tabular form the risks observed and priority mitigation activities undertaken during the reporting period in line with the project document. Note that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document. Please also consider the project's ability to adopt the adaptive management approach in remediating any of the risks that had been sub-optimally rated (H, S) in the previous reporting cycle.*

|   | (i) Risks  | (i) Risk level  | (i) Mitigation measures  | (ii) Progress to-date  | New defined risk <sup>4</sup> |
|---|--|-----------------|--|--|-------------------------------|
| 1 | Political imbalances hinder project implementation.  | Modest risk (M) | The political imbalances and security issues in Ukraine have been recognized during the development of the project document. Analysis of the situation with the national counterpart, the project development team concluded that majority of the implementation activities are planned to be undertaken in the territories which are not part of the conflict; the Eastern Ukrainian private sector partner is a minor  | This risk is now clearly present and impedes delivery of project.<br><br>The project team is operational, but activities that can be delivered are limited by the crisis in Ukraine  | X                             |
| 2 | Lack of national support in the enactment of proposed PCB-related legislations and EMS system. | Low risk (L)    | The Ministry of Environmental Protection of Ukraine is the initiator of the proposed project and will ensure the active participation of all key stakeholders as full and equal partners. Local NGOs and civil societies will actively participate at all stages of the project implementation including the development of the proposed legislations, guidelines and technical documents. It will create understanding and strong support in the development and timely adoption of the ESM system. | Key stakeholder engagement activities include training and awareness raising for relevant stakeholders, dissemination of project information via printed materials and the Project website, as well as annual steering committee meetings. This strategy has resulted in strong support from the national stakeholders thus far. | <input type="checkbox"/>      |
| 3 | Three laboratories will not be able to manage the load of PCB samples                          | Low risk (L)    | The project intends to provide rapid PCB screening devices to the project stakeholders. Only those samples will be further analyzed in the laboratories which are close to the 50ppm limit.  | There is no risk, since 2 large laboratories are accredited, which have a powerful material base and a sufficient number of qualified personnel.   | <input type="checkbox"/>      |

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| 4 | Private PCB owners will not report their PCB-containing and PCB contaminated equipment.                                  | Low risk (L)    | The new legislation framework will require the reporting of PCBs and authorizes the concerned government institutions for on-site inspections. Private enterprises will be informed about their obligations under the law through series of training workshops. The ESM system for disposal and treatment of PCB wastes and potential recovery of valued metals and mineral oil to be developed will demonstrate to PCB owners and to the business community, the economic efficiency of undertaking such projects. It will highlight the economic gains through regeneration of contaminated oil, recovery of secondary metals and extending the operating life of some transformers. Likewise, it will help to overcome the reluctance of PCB owners to cooperate with the project. The Government will have the institutional capacity to make the reporting obligatory and to facilitate the implementation of the PCB-related regulation. | An inventory database has been developed and the information is being collected, compiled and entered into the database.   | <input type="checkbox"/> |
| 5 | Accidental exposure to electrical shocks and/or PCB during transformer oil samples being taken during inventory exercise | Low risk (L)    | Service of transformers under voltage is a routine operation and normally the sample taking is not differing from many other operations done by the technical staff of electrical substations. However, to be on the safe side and in order to reduce further this risk the strict procedures for taking samples will be developed and their implementation will be controlled and recorded. Only technical personnel of sub-stations will be requested to take samples from powered appliances. Operators taken samples from transformers will be fully trained in working with or near energized transformers; the risk associated with exposure to PCBs and have to wear proper protective equipment when performing their duty.  | Technical regulations for the Management of PCBs were developed under the project and incorporated into the national legislation. These include guidelines and requirements on operating electrical equipment and strict procedures for the handling, sampling and testing of PCBs. Technicians are required to abide by the rules for technical operation of consumers' electrical equipment approved by the Ministry of Fuel and Energy of Ukraine on 25.07.2006 №258 (as amended by decree of the Ministry of Energy and Coal Industry of Ukraine on 13.02.2012 № 91) registered in the Ministry of Justice of Ukraine on October 25, 2006 № 1143/13017 | <input type="checkbox"/> |
| 6 | Technical staff, which can have direct contact with PCB-contaminated equipment, will be excessively exposed to PCB.      | Low risk (L)    | The technical staff will have training in proper handling of PCB wastes and equipment. Relevant guidelines will be developed, installed, adjusted and introduced at the technical facilities of the proposed project and for the transportation teams. Protective gears and equipment will be provided to the technical staff. Places for PCB wastes storage will be properly guarded to prevent admittance of non-authorized staff. These measures will minimize the risk.  | The technical regulations for the Management of PCBs include strict procedures for the handling, sampling and testing of PCBs. The regulations specify that staff must use a respirator or a gas mask to protect themselves from chlorinated vapor and that damaged PCB-containing equipment, waste and PCB spillages must be handled with the help of protective equipment, following occupational safety legislation. Concentration of dangerous substances in the air at a height of 2 meters above the ground should not exceed 30% in accordance with GOST 12.1-005 and other relevant standards.   | <input type="checkbox"/> |
| 7 | Excessive contamination of the environment during  | Modest risk (M) | The inventory will record volumes, weights and other conditions of PCB-contaminated equipment and wastes.  | The technical regulations for the Management of PCBs include measures to reduce the risk of  | <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.

During the FY 21 reporting period, risk have been mitigated and the project was put on track with the conduct of the midterm evaluation and the award of contract for PCB disposal technology. For FY 22, the ongoing crisis put the project at HIGH RISK.

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

COVID-19 containment measures resulted in some delays in the project implementation, in particular for the delivery of PCB screening equipment and the realization of the Mid-term Evaluation, which was finally conducted in March 2021. Additionally, periodic monitoring missions, as well as the Project Steering Committee meeting have had to be postponed. Internal restrictions also prohibited delivery of technical assistance which is very critical for the PCB disposal activities to commence. Assessment of the facility identified cannot be undertaken physically and had to be done through various virtual channels which is found to be quite restrictive and does not deliver the envisaged results.

Based from these developments, it is likely that the project will be extended for another year.

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

Already suffering from delays caused by the pandemic, the project implementation/execution badly suffers due to the ongoing political crisis in Ukraine. After some attempts to communicate with the project executing partner, several meetings were held in April and July 2023, with the participation of GEF OFP of Ukraine, which resulted to the following discussions:

- The Ministry has undergone restructuring but is committed to the delivery of the remaining activities of the project
- Members of the 'new' PSC will be appointed; a new project manager from SEA will be appointed
- Despite the difficulties, some activities have been initiated and completed. Re-alignment of some activities is on-going, respectively the sampling of contaminated sites hit by the current crisis.
- Catch-up plan (work plan) is under consideration.

A 2 years extension is to be requested to ensure proper delivery of project objectives.

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

Workplan has been developed and discussed to respond to the recommendations but implementation of some activities have been impeded by both the pandemic and the ongoing crisis. Laboratory accreditation is currently being undertaken and analysis of additional PCB samples is ongoing, as per recommendation.

#### 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).

*Notes on new risks:*

- *If new risks have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.*
- *If these new/additional risks are related to Operational Safeguards # 2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.*
- *Please refer to the [UNIDO Environmental and Social Safeguards Policies and Procedures \(ESSPP\)](#) on how to report on E&S issues.*

Please expand the table as needed.

|   | 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   | n/a      | n/a  | n/a  |
| (ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box) | n/a      | n/a  | n/a  |

## 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).

A new Project Steering Committee (PSC) was established due to government restructuring and deployment of PSC members to other institutions. This necessitated some time to finalize respecting internal procedures.

The Ministry also emphasized the required support on building internal/national capacity to deal with PCB/POPs disposal in the country necessitating realignment of technological options for disposal. Several meetings/discussions have to be conducted to ensure alignment of the technical options with project objectives and of GEF rules and procedures

For the current reporting period, several coordination meetings was conducted between the Ministry, UNIDO and ECOCENTER to ensure understanding of the tasks and to update the group of the activities on the transfer of the kiln. However, this was not possible from February due to the ongoing crisis.

Several meetings amongst the Ministry, SEA and UNIDO were conducted in April and July 2023. As per information, the Ministry has undergone restructuring and appointments have now been finalized. Discussions focused on the commitment of the Ministry to continue with the project activities and revised work plan in under consideration.

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.).

*Please summarize relevant feedback received on the project.*

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

4386\_Midterm Report  
4386\_Coordination meetings summary

## 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),.

While gender responsive measures and indicators have not been fully elaborated during the project development, baseline data collection was launched at the inception of the project, beginning with the participation rates of men and women in meetings, technical evaluation groups and the project steering committee. Recruitment of women expert will also be endeavored to ensure equal access to opportunities for both men

## 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.

Knowledge management products produced under the Project thus far include public awareness materials, booklets, video clips and brochures which have been distributed to a wide scope of stakeholders at the sub-regional seminars and project events.

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

Not applicable for this reporting period.

## 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.

Implementation progress during this reporting period is severely impacted by the ongoing political crisis in Ukraine.

During FY 22 reporting period, the project was finally on track after government restructuring and even with the delays caused by COVID-19 on several planned activities and experts' mission, virtual meetings were undertaken. This resulted to the successful conduct of the midterm evaluation and the award of contract to the PCB disposal facility.

Already suffering from delays caused by the pandemic, the project implementation/execution badly suffers

due to the ongoing political crisis in Ukraine.

Summary of 2023 discussions is given below:

- The Ministry has undergone restructuring but is committed to the delivery of the activities of the project
- Members of the 'new' PSC will be appointed and a new project manager from SEA was appointed
- Despite the difficulties, some activities have been initiated and completed, including the continuation of the inventory in the "safe zones", analysis of samples collected and the continuing accreditation of the laboratory for analysis of PCB in soil and other sources.
- Re-alignment of some activities is envisaged, esp. on the sampling of contaminated sites hit by the current crisis.
- Catch-up plan (work plan) will be drafted.

Extension of the project is to be requested for a 2 years period to ensure proper delivery of project objectives.

2. Please briefly elaborate on any **minor amendments**<sup>5</sup> 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                             | N/A   |
| <input type="checkbox"/>            | Components and Cost                           | N/A   |
| <input type="checkbox"/>            | Institutional and Implementation Arrangements | N/A   |
| <input type="checkbox"/>            | Financial Management                          | N/A   |
| <input checked="" type="checkbox"/> | Implementation Schedule                       | The project has suffered delays due to various reasons and has already been extended twice. |
| <input type="checkbox"/>            | Executing Entity                              | SEA was engaged as project executing partner  |
| <input type="checkbox"/>            | Executing Entity Category                     | N/A   |
| <input type="checkbox"/>            | Minor Project Objective Change                | N/A   |
| <input type="checkbox"/>            | Safeguards                                    | N/A   |
| <input type="checkbox"/>            | Risk Analysis                                 | N/A   |
| <input type="checkbox"/>            | Increase of GEF Project Financing Up to 5%    | N/A   |
| <input type="checkbox"/>            | Co-Financing                                  | N/A   |
| <input checked="" type="checkbox"/> | Location of Project Activities                | Changes in the operating entity of the PCB disposal option was requested by the new PSC     |
| <input type="checkbox"/>            | Others  | N/A   |

<sup>5</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%.



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

The project currently has a financial implementation of 48% with a total expenditure of US\$ 2,543,950 as of June 30, 2023 and a remaining uncommitted balance of US\$ 2,937,317.

Details of the project disbursement versus available funds are provided as Annex

**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.

| Outputs by Project Component  | Year 2022 |    |    |    | Year 2023 |    |    |    | Year 2024 |    |    |    | Year 2025 |    |    |    | GEF Grant Budget Available (US\$) |
|---|-----------|----|----|----|-----------|----|----|----|-----------|----|----|----|-----------|----|----|----|-----------------------------------|
|   | Q1        | Q2 | Q3 | Q4 | Q1        | Q2 | Q3 | Q4 | Q1        | Q2 | Q3 | Q4 | Q1        | Q2 | Q3 | Q4 |                                   |
| <b>Component 1 – Institutional, regulatory and human capacity building for PCB management</b>   |           |    |    |    |           |    |    |    |           |    |    |    |           |    |    |    |                                   |
| Outcome 1: Strengthening of legal framework and institutional capacities for efficient PCB management and disposal  |           |    |    |    |           |    |    |    |           |    |    |    |           |    |    |    |                                   |
| Output 1.1: PCB-related legislation including technical guidelines updated and in place   |           |    |    |    |           |    |    |    |           |    |    |    |           |    |    |    | 135,869.97                        |
| Output 1.2: Staff of government agencies, customs, NGOs and PCB owners trained to implement the regulation  |           |    |    | ☒  | ☒         | ☒  | ☒  | ☒  | ☒         | ☒  | ☒  | ☒  | ☒         | ☒  |    |    |                                   |
| Output 1.3: Methods for PCBs analysis adopted and 3-4 laboratories accredited for PCB analysis  |           |    |    | ☒  | ☒         | ☒  | ☒  | ☒  | ☒         | ☒  |    |    |           |    |    |    |                                   |
| Output 1.4: ESM system for the use and disposal of PCBs including related occupational safety measures implemented and published in a guideline               |           |    |    | ☒  | ☒         | ☒  | ☒  |    |           | ☒  | ☒  | ☒  | ☒         |    |    |    |                                   |
| Output 1.5: Operating procedures and trainings for enforcement authorities to carry out inspections related to the ESM system standardized                    |           |    |    |    |           |    |    |    |           |    |    |    | ☒         | ☒  | ☒  |    |                                   |
| Output 1.6: Emergency response measures developed and in place for transformer fires and leakages   |           |    |    |    |           |    | ☒  | ☒  | ☒         | ☒  |    |    |           |    |    |    |                                   |
| <b>Component 2 – Defining priority measures based on reliable in-depth inventory and national management plan for PCBs</b>                                    |           |    |    |    |           |    |    |    |           |    |    |    |           |    |    |    |                                   |
| Outcome 2: Establishment of in-depth inventory of the major owners of contaminated equipment and development of the national management plan for PCB disposal |           |    |    |    |           |    |    |    |           |    |    |    |           |    |    |    |                                   |



|   |  |  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |            |
|---|--|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------|
| Output 4.2:Project impact monitoring system, evaluation of the achieved results and introduction of corrections if required |  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| Output 4.3:Dissemination of project related information and results to local stakeholders                                   |  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| <b>Project Management Costs</b>   |  |  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |            |
| Staff and international consultants   |  |  |                                     |                                     |                                     |                                     |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 197,052.28 |
| Local Travel  |  |  |                                     |                                     |                                     |                                     |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |            |
| Contractual services  |  |  |                                     |                                     |                                     |                                     |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |            |
| Other direct costs  |  |  |                                     |                                     |                                     |                                     |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |            |

**3. Stories to be shared (Optional)**

*Please provide a brief summary of any especially interesting and impactful project results that are worth sharing with a larger audience, and/or investing communications time in. Please include links to any stories/videos available online.*

## EXPLANATORY NOTE

1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2021 – 30 June 2022.
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 |   |
|---|---|
| <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.                      |