Terminal Evaluation

GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project

UNDP BELARUS – GEF PIMS #5532

May 2024

Acknowledgements

The Terminal Evaluation team would like to acknowledge the support provided during all phases of the evaluation. UNDP and the Project Management Unit supplied project documentation through a shared folder that was easily accessible to TE team members. The PMU and UNDP assisted in organizing the logistics for field mission undertaken by the national evaluation consultant to visit stakeholders and visit project sites. We also acknowledge careful review and useful comments provided by UNDP, the PMU and government stakeholders which enhanced the final evaluation report.

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Acronyms

AOX	Adsorbed Organic Halogen
CO	Country Office (UNDP Belarus)
CPD	Country Programme Document
CUE	Communal Unitary Enterprise
DDT	Dichlorodiphenyltrichloroethane
GEB	Global Environment Benefits
GEF	Global Environment Facility
EU	European Union
FAO	Food and Agriculture Organization
GoB	Government of Belarus
HTI	High-Temperature Incineration
HW	Hazardous Waste
IACC	Inter-Agency Coordination Council
KII	Key Informant Interview
MEA	Multilateral Environmental Agreement
MNREP	Ministry of Natural Resources and Environmental Protection
MTR	Mid-Term Review
M&E	Monitoring and Evaluation
NIM	National Implementation Modality
NIP	National Implementation Plan (SC requirement)
NGO	Non-governmental Organization
NEMS	National Environmental Monitoring System
OP	Obsolete Pesticides
PB	Project Board
PCB	Polychlorinated Biphenyls
PIF	Project Identification Form
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant
ProDoc	Project Document
PIR	Project Implementation Report
PMU	Project Management Unit
POP	Persistent Organic Pollutants
SC	Stockholm Convention on Persistent Organic Pollutants
SDG	Sustainable Development Goal
SESP	Social and Environmental Screening Procedure
SGP	Small Grants Program
TE	Terminal Evaluation
TNLA	Technical Normative Legal Acts
ToC	Theory of Change
UNIDO	United Nations Industrial Development Organization

Executive Summary

Project Information Table

Project Title	GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project		
UNDP PIMS #:	5532	PIF Approval Date:	19 April 2016
GEF Project ID:	8017	CEO Endorsement Date:	31 January 2018
Country:	Belarus	Project Start Date (ProDoc Signature):	5 October 2018
Region:	Europe and Central Asia	Date project manager hired:	3 January 2020
Focal Areas:	Chemicals and Waste	Inception Workshop date:	19 November 2020
GEF 6 Focal Area and Strategic Objective:	Chemicals and Waste – Objective 1 Program 2: Support enabling activities and promote their integration into national budgets and planning processes, national and sector policies and actions and global monitoring Chemicals and Waste – Objective 2 Program 3: Reduction and elimination of POP	Midterm Review completion date:	27 December 2021
		Terminal Evaluation completion date	April 2024
		Planned closing date:	05th October 2022
		First Project Extension	05th April, 2024
Trust Fund	GEF TF	Second Project Extension	05th October, 2024
Executing Agency/ Implementing Partner:	Ministry of Natural Resources and Environmental Protection (MNREP)		
NGOs/CBOs involvement:	Environmental Initiative; Green economy; Center for Environmental Solutions; Surrounding World; Ladybug Ecocenter		
Private sector involvement:	POPs Contractors: Geocoma (Polish company); TREDI (French company); ROVAMI (Slovak company)		
Geospatial coordinates of project sites:	**Vitebsk region:** GPS: 55.6956 28.4578; 55.56532 27.11439; 55.58644 28.26657; 55.63205 27.61901; 55.91260 28.78718; 54.41229 29.76997; 54.64397 30.66042; 54.87018 28.73867; 54.42916 30.36985; 54.70642 29.63292; 55.01319 30.81396; 55.48163 29.99823; 55.29539 30.26786; 55.38808 30.74835; 55.31717 29.60439; 55.11109 26.77330; 55.14102 27.64601; 55.25169 27.92467; 55.33610 28.28840; 55.34640 27.48970; 55.13301193, 27.20119517; 54.4938889, 30.390278.		

	Minsk region: GPS: 52.99516 27.60406; 54.52821 26.95055; 53.67915 27.17475; 53.07909 26.64806; 54.29513 29.07014; 54.46156 27.66486; 54.68689 27.19844; 53.59839 27.87248; 53.04785 28.33946; 53.47861 26.76411; 53.60505 28.74406; 54.55759 28.19520; 54.09719 28.83162; 54.04925 28.62858; 54.098278, 28.316886; 53.020056, 27.476472; 54.616194, 27.45025. **Grodno region:** GPS: 53.79964 25.78104. **Gomel region:** GPS: 52.788690, 30.845750; 52.373713,30.334881; 52.45134767, 30.92048943. **Mogilev Region:** GPS 54.26225, 31.01006; 53.850480, 30.409488; 53.908394, 30.373702. **Brest Region:** GPS52.189722, 26.080556; 53.121524, 25.975923.		
Other execution partners:	N/A		
Project Financing			
PPG	at approval (US$M)	at PDF/PPG completion (US$M)	
GEF PPG grants for project preparation	USD $200,000	USD $198,141.97	
Co-financing for project preparation	USD $0	USD $0	
Project	at CEO Endorsement (US$M)	at MTR (US$)	at TE (US$)
1. GEF financing	USD $8,400,000	USD $519,130	USD $6,096,329
2. UNDP contribution	USD $704,880	USD $0	USD $0
3. Government	USD $32,423,010	USD $20,139,383	USD $20,398,862
4. Other partners	USD $17,680,000	USD $0	USD $4,231,519
5. Total co-financing (2+3+4)	USD $50,807,890	USD $20,139,383	USD $24,630,381
Project total (1+5)	USD $59,207,890	USD $20,658,513	USD $30,726,710

Project Description

The objective of the GEF-6 Belarus Persistent Organic Pollutants (POPs) Legacy and Sustainable Chemicals Management project is:

Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in Belarus.

The project involves environmentally sound elimination of PCB equipment, as generated in accordance with the nationally mandated PCB equipment stockpiles, repackaging, transport and environmentally sound elimination of rural stored obsolete pesticide (OP) stores stockpiles in the country. Additionally, the project provides support and capacity strengthening for various aspects of POPs and hazardous waste management infrastructure, environmental monitoring, sound chemical management, gender mainstreaming, enhanced public awareness in the area. The Belarus POPs project received USD $8,400,000 of Global Environment Facility (GEF) financing.

Achievement of the Belarus POPs project objective is supported by four Outcomes:

Outcome 1: Sustainable Polychlorinated Biphenyls (PCB) Management

Outcome 2: Elimination of Obsolete Pesticide (OP) Legacies

Outcome 3: Capacity Strengthening and Planning for Sound Chemicals Management

Outcome 4: Knowledge Management and M&E

Evaluation Ratings Table

Monitoring and Evaluation	**Ratings***
M&E design at entry	S
M&E Plan Implementation	S
Overall quality of M&E	S
Implementing Agency (IA) & Executing Agency (EA) Execution	
Quality of UNDP Implementation – Implementing Agency	S
Quality of Execution - Executing Agency	S
Overall quality of Implementation / Execution	S
Assessment of Outcomes	
Relevance	HS
Effectiveness	HS
Efficiency	S
Overall Project Outcome Rating	S
Sustainability	
Financial resources	MU
Socio-political	L
Institutional framework and governance	L
Environmental	L
Overall likelihood of sustainability	ML

* For Rating scales see **Annex 6**

Summary of findings and conclusions

At the national level the POPs project has assisted in development of capacity, legal instruments, regular data acquisition and reporting, and effective strategies for environmentally responsible management of hazardous chemicals, in line with international standards. Through work completed at the national level the POPs project has made an important, sustainable contribution to the protection of human well-being and the natural environment of Belarus.

The POPs project was also effective in reducing the immediate threat posed by POPs in PCB containing equipment which posed the greatest risk (i.e., capacitors) and the removal and environmental sound destruction of stored OPs, and the cleaning of warehouses storing OPs. The POPs project has characterized the five remaining OP burial sites in Belarus and developed comprehensive action plans that require future funding for implementation to complete environmentally sound cleanup and disposal of burial sites.

Unforeseen circumstances led to delays in implementation of POPs project activities, including, Covid-19 and an emerging regional geopolitical situation. These delays resulted two requests for project extensions that were approved. Financially, the project remained within budget, efficiently utilizing all project funds to complete project activities.

In conclusion, the POPs project has made a substantial contribution to the protection of human health and the environment through elimination of POPs legacy chemicals, including elimination of 32% of the remaining PCB containing equipment and 61% of the remaining stored OP.

Despite the POPs project having met elimination targets, there remain, substantial quantities of legacy chemicals in the form of in-use PCB containing equipment (2,516 tons), stored OPs (749 tons) and OP contaminated soil (4,357.2 tons). Training, equipment, and experience provided by the POPs project provides relevant government and private sector stakeholders with the capacity needed to undertake the work required. In addition, the POPs project characterized and developed Action Plans, with budgets, to address the specific needs of the five OP burial sites.

The POPs project has also supported government in the development of TNLA and strategies that support monitoring and reporting on POPs and plans for their management and elimination.

The POPs project has demonstrated willingness and capacity of government and the private sector to meet commitments off the SC. There remains a need to secure the financial resources needed to implement the activities required to achieve the elimination POPs legacy chemicals.

Given the ongoing presence of POPs legacy chemicals in the Republic of Belarus, the POPs project work on awareness raising and training, particularly for urban and rural women at risk, stands as an important contribution of the POPs project to reducing risks to human health. The TE has recommended that awareness raising and training continue to be an integral part of the work of managing POPs legacy chemicals given the fact the elimination of the remaining POPs legacy chemicals will not be completed for five to ten years.

Recommendations summary table

The timing for recommendations has two categories; 0-6 months which are intended to be completed as part of project closure, and 6-24 months which are intended as recommendations to be implemented on an ongoing basis after project closure.

TE Recommendation	Entity Responsible	• Timing
Recommendation 1 Future development of Strategic Results Framework indicators to be "specific" by identifying a single end-of-project target.	• UNDP CO • MNREP	• 6-24 months
Recommendation 2 Encourage the ongoing participation of NGOs in POPs management activities by further enhancing their capacity (knowledge, financial support) to disseminate POPs education materials.	• MNREP	• 6-24 months
Recommendation 3. All OPs remaining in storage warehouses in the Minsk region should be removed and transported for environmentally sound disposal as quickly as possible and warehouses cleaned. PCB containing equipment should be transported for environmentally sound disposal as soon as possible. And the POPs project should complete the transition of POPs owners to the new Unified POPs Database, ensuring legislative confirmation of the transition.	• PMU • MNREP	• 0-6 months
Recommendation 4 Develop an action plan that identifies: priorities; methods; and costs; for environmentally sound disposal of the remaining PCB containing equipment in Belarus in support of the State Program of "Environmental Protection and Sustainable Use of Natural Resources for 2021-2025. The action plan may be used as a framework for the preparation of a "State Program for Environmental Protection and Sustainable Use of Natural Resources for the period 2026-2030".	• PMU • MNREP	• 0-6 months
Recommendation 5 Develop the capacity (technical staff and equipment) to (1) open transformers and remove insulating oils that contain PCBs and (2) decontaminate the interior of transformers once PCB containing oils are removed. PCBs containing oils may then be transported for permanent disposalin. This will enable Belarus to for implement more efficient, environmentally sound disposal and recycling of PCB containing transformers, including the decommissioning of transformers currently in use. (Recommendation 5 may be undertaken as part of the development of a Concept Note in Recommendation 7)	• MNREP	• 6-24 months

TE Recommendation	Entity Responsible	• Timing
Recommendation 6 Based on the results of the POPs sociological survey continue to deliver training seminars to safeguard women's health and in future Cconduct a follow-up Knowledge, Attitude, Behavior, and Practice (KAP) survey to determine the efficacy of POPs awareness raising seminars	• PMU • MNREP	• 0-6 months
Recommendation 7 Develop a Concept Note that comprehensively outlines the remaining actions and finances required for environmentally sound disposal of all PCB containing equipment, stored OPs and OP contaminated soil. Based on the Concept Note seek international funding (grants and/or loans) for implementation.	• PMU • MNREP • UNDP	• 0-6 months

Lessons Learned

1. The implementation and achievement of some POPs project activities were dependent on the successful completion of a second independently management project (see **Annex 11** Indicator # 5). For this type of situation there is a need for the POPs project to assess the likelihood of failure of the second independent project and the implications of this failure to the achievement the POPs project's objective and outcomes.

2. Even under challenging regional geopolitical situation and international sanctions UNDP has the capacity to support government, non-government and private sector organizations dedicated to undertaking important environmental protection work. Individuals working in these organizations benefit through participation in UNDP projects, utilizing and developing their skills to make important contributions to human well-being and environmental projection.

3. POPs project stakeholders and beneficiaries noted the private sector project contractor (Geocoma) was extremely helpful during the implementation of project activities, providing their knowledge and skills in repackaging, transportation and disposal of POPs. Stakeholders appreciated that the private sector specialists made themselves available at any time to provide consultation and assist in completing project activities.

4. The TE acknowledges UNDP is well positioned to implement infrastructural projects based on the presence of a country office that has established relationships with government and non-government institutions and an efficient and transparent project management system, in place. When a project faces challenges UNDP staff in-country can be contacted and provide assistance, including access to international technical advice and procurement through UNDP's regional and global offices. Other agencies that are not present in-country, such as UNIDO, can face difficulties in the implementation of large projects which encounter challenges, and this may result in less effective and unexpected results.

5. POPs projects must accept the amount and type of pesticides recorded in the documents may vary significantly from what is present when detailed, on the ground field studies are undertaken. The POPs project determined that the actual amount of POPs was in some

cases up to three times greater than the declared amount and in most cases, the composition of pesticides was unknown. In other cases, such as the amount of pesticides in warehouses, the ProDoc estimated 1,900 tons, whereas the POPs project determined there was 1,400 tons.

6. When developing a project where a significant part of the budget is to be utilized for transport services and/or equipment procurement, the budget should consider the fact that actual procurement during project implementation will likely not occur for several years. Project budgets should therefore be sufficient to include the predicted future costs based on the average annual inflation rates.

7. Implementation as a NIM project meant the POPs project had the following benefits and weaknesses:

    a. MNREP as the executing agency was able to adapt to rapidly changing situations and resolve controversial issues through effective communication between ministries and departments.

    b. The PMU reported to MNREP and UNDP, resulting in additional work due to the requirement for the POPs project to meet the financial and reporting standards required for each agency;

    c. As a NIM project the PMU was required to meet substantial requirements in regard to Ministry approval of decision-making procedures, including applications, official letters, obtaining signatures of responsible persons;

    d. As a NIM project, in-kind contributions of government provided important co-financing support for administrative costs (office, transportation costs, office supplies, etc.). However, working conditions for the PMU were not considered ideally suited for the large responsibility and stressful circumstances associated project implementation

    e. As a NIM project there was no access to the procurement of goods and services in international markets that require payment in international currencies. Given the need for international transport and disposal of POPs there was a need for UNDP to secure and make payment for these services

    f. As a NIM project for some of the budget tranches transferred from UNDP to MNREP for project implementation there was a need for the tranche to be registered in the Ministry of Economy as international technical assistance, prior to the funds being released to MNREP and used to support project activities. As the registration process can take several months, the registration process caused delays in the implementation of some project activities.

Terminal Evaluation of GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project

1 Introduction

1.1 Purpose and objective of the TE

The purpose of the Terminal Evaluation (TE) is to provide an independent external view of the progress of the project at its completion, and to provide feedback and recommendations to UNDP and project stakeholders.

The objectives of the TE are to:

- Identify potential project design issues;
- Assess progress toward achievement of expected project objective and outcomes;
- Identify and document lessons that can both improve the sustainability of benefits from this project and aid in overall enhancement of UNDP and GEF programming in the region;
- Make recommendations necessary to help consolidate and support sustainability of the project results.

The TE report will assess the achievement of project results against what was expected to be achieved, and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report will promote accountability and transparency, and assesses the extent of project accomplishments.

The TE will provide credible, useful, evidence-based information which enables timely incorporation of its findings, recommendations and lessons into decision making processes of UNDP and key stakeholders. The TE will provide recommendations for follow-up activities, that will require a management response prepared by the project team. The TE will cover the time span from the date of commencement of the project, October 05th 2018 to the current date while undertaking the TE. Project operational closure is scheduled for October 05th, 2024.

The primary users of the TE results will be UNDP, GEF and the Republic of Belarus, as well as relevant government ministries, development partners and donors. The TE will be conducted according to UNDP Evaluation Guidance for GEF Financed Projects.

1.2 Methodology

The POPs TE has followed guidance provided in the TOR (**Annex 1**) and the Independent Evaluation Office GEF Guidelines for Conducting Terminal Evaluations of Full-Size Projects (October, 2023). The GEF guidance will be followed in preparing the POPs TE evaluation report. The evaluation used OECD DAC criteria and definitions followed the norms and standards established by the United Nations Evaluation Group (UNEG). Prior to commencing the field mission the TE team prepared and submitted an Inception Report for review and approval by UNDP. The Inception Report included questions outlined in the evaluation matrix provided in **Annex 2**.

Evaluation activities were organized according to the following stages: i) planning; ii) data collection; and, iii) data analysis and reporting. Figure 1 below shows the three stages and the main activities under each of them.

1.3 Data Collection and Analysis

Document Review
The TE reviewed and analyzed relevant documentation provided by UNDP and the project team, as well as any other documents that were considered relevant to the TE. A list of documents reviewed is provided in **Annex 3**.

Terminal Evaluation Stakeholder Interviews
Stakeholder consultations were a core activity of the TE. A field mission (**Annex 4**) was undertaken by the national TE consultant to conduct Key Informant Interviews (KII) and Focus Group Discussions (FGD). KII and FGD were conducted independently, project staff and/or other UNDP staff were not present. The field mission included visits to Slutsk, Novogrudok and Chechersk project sites. The international TE consultant conducted virtual interviews using Zoom to supplement work undertaken by the national TE consultant. The list of stakeholders consulted as derived from the ProDoc and discussion with UNDP and the Project Management Unit (PMU) is shown in **Annex 4**. The TE team followed ethical guidelines to ensure safe, non-discriminatory, respectful engagement of stakeholders following UNEG Ethical Guidelines for Evaluations (**Annex 5**).

Analysis of the Theory of Change
The Theory of Change (ToC) and intervention logic has been assessed to determine if it is coherent and realistic (**Annex 7**). The ToC was assessed in the context of ongoing project implementation and possible future needs after project closure. The ToC analysis provided in **Tables 7.1and 7.2** followed the methods in the Review of Outcomes to Impacts (ROtI) Handbook (2009). The ROtl rating scale used in **Table 7.2** is provided at the end of the table.

Analysis of the Evaluability of the Strategic Results Framework Indicators
The TE assessed the evaluability of the project's Strategic Results Framework (SRF) indicators and targets as presented in the ProDoc using "SMART" criteria (Specific, Measurable, Achievable, Relevant, and Time-bound) (**Annex 8. Table 8.1**). The SRF indicator analysis used a three point colour rating system, with green for "compliant", orange for "questionably compliant", and red for "not compliant" when assessed against "SMART" criteria.

Analysis of Risk Ratings
The TE evaluated the SESP risks and proposed mitigation measures identified in the ProDoc. The TE analysis of risk followed UNDP Enterprise Risk Management (ERM) 2019 guidelines to provide a combined assessment of "likelihood" and "impact" to determine a colour-coded risk rating of High (red), Substantial (orange), Moderate (yellow) or Low (green) using the ERM Risk Evaluation Matrix (**Annex. 9. Table 9-1**).

Analysis of SRF Indicator Target Achievement
Utilizing information reviewed in the available Annual Project Implementation Reports (PIR), monitoring reports, publications produced by the project, and information gathered from stakeholder interviews and the field mission site visits, the TE assessed the effectiveness of

progress towards end of project targets established for the SRF indicators and the likelihood of achieving final targets (**Annex. 10 Table 10.1**). Progress towards the achievement of indicator targets was assigned an achievement rating using the following three-point rating system: **Target Achieved**; or **Target Partially Achieved**; or **Target Not Achieved**.

Evaluation of project management and implementation

The evaluation will assess the project management structure and implementation methodology, including:

- the effectiveness and capacity (sufficient number of staff with required qualifications to address project needs) of the POPs Project Team;
- the leadership provided by the Project Steering Committee;
- support provided by UNDP;
- the adaptive/agile management strategy employed by the project and the implications for project implementation;
- how the project adapted to restrictions imposed by COVID-19 and how the project implementation emerged from COVID-19 restrictions;
- the engagement, project support, roles, responsibilities, and capacity of national and local government stakeholders and implementing partners; and
- the role of peer-to-peer learning among project partners.

Analysis of Project Finance

Based on the available data provided by UNDP and the POPs Project Team, key financial aspects of the project have been evaluated. This included year to year proposed budgets versus actual spending of the available GEF funds; impact of exchange rate fluctuations; and the co-financing available as identified in the ProDoc versus the actual co-financing received. Utilization of the available project financing has been assessed in the context of the effectiveness and efficiency of completing project activities and the achievement of project indicator targets.

Data Triangulation and Analysis

The TE team has verified results by triangulating the data available from a wide variety of documents with information gathered through an in-country field mission meeting with stakeholders and conducting site visits. The results of data triangulation have been used to complete the narrative TE report as outlined below. The draft evaluation report was shared with UNDP and key stakeholders providing an opportunity to validate the data presented.

1.4 Ethics

The TE team used a gender-responsive approach, integrating a gender lens throughout the evaluation process and in interpretation of results and recommendations. The TE team members have signed UNDP's Pledge of Ethical Conduct in Evaluation (**Annex 5**).

The TE team has also assessed the POPs project in the context of a poverty–environment nexus and climate change mitigation and adaptation.

1.5 Limitations to the evaluation

The TE team may not have the opportunity to meet with all stakeholders. The International TE Team Leader will not visit Belarus, and as an English speaker, will not participate in stakeholder meetings where Belarusian and/or Russian language is used. The TE National Evaluator, responsible for conducting in-country stakeholder meetings and site visits, has not been able to meet with all stakeholders and visit all project sites as explained below. In addition, some UNDP and government staff involved in the early stages of POPs project implementation have moved to new positions and they were not available for KII.

The international expert participated in the evaluation remotely, without a visit to the Republic of Belarus. Most respondents did not speak English, so the interview were conducted by a national expert in Russian in order to increase the efficiency of the process (saving money and time for an interpreter). In total 4 of the 29 interviews (14%) were conducted in English. It should also be noted that 6 of the 32 (19%) stakeholders selected for interviews, were unavailable for various reasons or they declined to be interviewed.

The national evaluator was able to conduct additional stakeholder interviews to make up for stakeholders who were unavailable or declined to be interviewed. To ensure consistent, quality data was collected by the national and international evaluation team members, a common interview question matrix was used. Interview results from collected by the national evaluator were translated into English for the international evaluator.

Three of the 35 project sites were visited. The low number of project sites visited was due to the fact that at the time of the project evaluation, most project sites had already been cleared of POPs, and some storage facilities had been demolished after hazardous waste had been removed. This limitation was mitigated by the project staff providing detailed and thorough photographic documentation of the POPs disposal process of re-packaging and removal of hazardous waste from storage sites.

1.6 Structure of the TE report

The structure of the TE report follows the Independent Evaluation Office GEF Guidelines for Conducting Terminal Evaluations of Full-Size Projects (October, 2023). The TE report includes the following main sections:

- Executive Summary
- Introduction
- Project Description
- Findings
- Main Findings, Conclusions, Recommendations and Lessons Learned
- Annexes

2 Project Description

2.1 Project start duration, and milestones

The POPs project start date was October 5th, 2018 (ProDoc Signature date), and the project was to be implemented over a four-year period, with a closing date of October 5th, 2022.

Start-up of the POPs project implementation was slow, awaiting registration of the project by the Council of Ministers of the Republic of Belarus (December 18th, 2018), approvals for exemption from the value added tax by the Ministry of Economy (September 23rd, 2019) and signing by the implementing agency, the Ministry of Natural Resources (October 7th, 2019). There was also a delay due to the hand over from the Research Center Ecology to the MNREP for POPs project implementation.

The POPs project started active implementation on January 1st, 2020, with a Project Manager hired on January 3rd, 2020 and an Inception Workshop held on November 19th, 2020.

The start-up delays and the impact of Covid-19 restrictions led to a request for an18 month extension in 2022 which was approved, with a new project closing date of April 5th, 2024. A Mid-Term Review was conducted from August to October, 2021 and the Terminal Evaluation was conducted from November 2023 to January 2024.

A request for a second project extension of 6 months was approved by the Project Board (Minutes No. 14 dated November 09th, 2023) and a formal letter of request was sent from the MNREP to UNDP CO on November 10th, 2023. Upon review by UNDP the second extension was approved, and project closure is now scheduled for October 5th, 2024.

2.2 Development context

Belarus joined the SC in 2004. POPs stockpiles inherited by the country from the Soviet Union include OP and PCB containing equipment as well as PCB contaminated soils and liquids in small quantities, and POPs pesticides principally Dichlorodiphenyltrichloroethane (DDT) and Hexachlorocyclohexane (HCH). Belarus is an active participant of the SC and strives to implement its obligations as manifested by its leading positions in this area among post-Soviet countries. Guided by Belarus' obligations under the SC, the Government has put POPs under a separate category of hazardous wastes and is undertaking rigid control of the management of these chemicals at all stages in an effort to prevent their release. Historical OP storage and disposal arrangements have included rural storehouses and a number of controlled burial sites. At the time of the preparation of the ProDoc it was reported there were 88 rural OP storehouses owned by agricultural enterprises and 5 subsurface storage sites established in Soviet times remain. During the project inception phase the latter numbers were revised to, 33 rural OP storehouses and 5 subsurface storage sites.

The country has developed a facility for hazardous waste storage in Chechersk District (raion) of Gomel Oblast. The facility's design and construction provide for the possible establishment of an installation for the destruction of some POPs wastes. There would therefore be some POPs, such as chlorine containing POPs, that could not be processed by the proposed facility and would need to be shipped out of country for destruction.

There are approximately 700 entities owning PCB containing equipment across the country. National legislation requires the owners to ensure environmentally secure storage of equipment removed from service and prohibits any commercial transactions with PCB containing equipment.

At the start of the project, the country had successfully eliminated a significant amount of the historical stockpiles of POPs as well secured remaining stockpiles of PCBs and OPs and maintains a comprehensive inventory of these, along with the remaining in-service PCB equipment. During the period 2009-2013, a GEF/World Bank project eliminated 1,800 tons of POPs pesticide waste and 823 tons of PCB based equipment from priority high risk holders' stockpiles. An additional 14.71 tons of PCB equipment from small holders was eliminated by an innovative NGO "Green Economy" administered program under the framework of a GEF Small Grants Program (SGP) in the 2015-2016 period. Finally, 330 tons of OPs were eliminated in 2016 under a European Union (EU) / Food and Agriculture Organization (FAO) project. 22,5 tons of POP-containing wastes were removed and disposed within the project "Engagement in Environmental Monitoring and Improving Environmental Management at the Local Level ", funded by the European Union and implemented by the United Nations Development Program in the Republic of Belarus in 2021. This elimination was done with involvement of the NGO "Ecological Initiative".

2.3 Problems that the project sought to address

Barriers to the elimination of POPs in Belarus include:

- National financial capacity limitations as a primary barrier;
- A lack of facilities in Belarus for environmentally sound treatment of POPs and associated chemical wastes, POPs elimination requires export for destruction. Belarus is taking steps to create the capacity for POPs treatment at the Chechersk Facility;
- Achievement of sound chemicals management requires upgrading national technical capacity, in particular the skills and tools required to deal with the remaining POPs legacies and broader sound chemicals management requirements; and
- Increasing awareness of stakeholders remains a fundamental challenge to sustaining progress and commitment.

The specific Development Challenge being addressed by this Project relates to the general enhancement of public health and environmental protection in Belarus through sustaining implementation of the country's ambitious long term national program on addressing POPs and related chemical waste legacies with the targeted objective of substantially eliminating such legacies to a level equivalent to that achieved in Organization for Economic Co-operation and Development (OECD) countries. This is consistent with:

i. national development priorities as reflected in the direct integration of the Project in both operational and financial terms with the above referenced National Program framework on the issue and the country's broader environmental policy objectives;

ii. the achievement of Global Environment Benefits (GEB) as reflected in the objectives of the SC and other international chemicals conventions, overall GEF objectives respecting targeted GEB and particularly the specific objectives of the GEF-6 Chemicals and Waste Focal Area; and

iii. Sustainable Development Goals (SDGs) generally and specific SDG targets related to the reduction of deaths from hazardous chemicals and air, water and soil pollution and contamination (SDG Goal 3 – Good Health and Wellbeing), improvement of water quality by reducing pollution and eliminating dumping and minimizing the release of hazardous chemicals (SDG Goal 6 – Clean Water and Sanitation), upgrading infrastructure and retrofit industries with clean and environmentally sound technologies and industrial processes (SGD Goal 9 – Industry, Innovation and Infrastructure), and environmentally sound management of chemicals and waste (SDG Goal 12-Responsible Production and-Consumption).

2.4 Immediate and development objectives of the project

The objective of the GEF-6 Belarus Persistent Organic Pollutants (POPs) Legacy and Sustainable Chemicals Management project is:

Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in Belarus.

The project involves environmentally sound elimination of PCB equipment, as generated in accordance with the nationally mandated PCB equipment stockpiles, repackaging, transport and environmentally sound elimination of rural stored OP obsolete pesticide stores stockpiles in the country. Additionally, the project provides support and capacity strengthening for various aspects of POPs and hazardous waste management infrastructure, environmental monitoring, sound chemical management, gender mainstreaming, enhanced public awareness in the area. The Belarus POPs project received USD $8,400,000 of Global Environment Facility (GEF) financing.

Achievement of the Belarus POPs project objective is supported by the following four Outcomes and their associated Outputs:

Outcome 1: Sustainable Polychlorinated Biphenyls (PCB) Management

> **Output 1.1:** PCB phase out plan implementation for sustainable and accelerated PCB phase out
>
> **Output 1.2:** Sustainable PCB/chemicals waste management infrastructure developed and operational in Belarus
>
> **Output 1.3:** Environmentally sound elimination of present equipment PCB stockpiles and accelerated phased out equipment during the project

Outcome 2: Elimination of Obsolete Pesticide (OP) Legacies

> **Output 2.1:** Environmentally sound elimination of remaining OP storage site stockpiles
>
> **Output 2.2:** OP burial site containment

Outcome 3: Capacity Strengthening and Planning for Sound Chemicals Management

Output 3.1: Legal, institutional and regulatory review of national chemicals management system with updates consistent with current sound chemicals management practice, including EU and Eurasian Customs Union legislation.

Output 3.2: Implementation of gender mainstreaming practices for project activities and sound chemical management initiatives generally

Output 3.3: Expanded national program for monitoring chemicals in the environment developed and implemented

Output 3.4: National Implementation Plan for Implementation of the Stockholm Convention (NIP) Update prepared, endorsed and submitted in accordance with Stockholm Convention on Persistent Organic Pollutants (SC) obligations

Output 3.5: Supporting public and stakeholder awareness and information exchange for measures on POPs and sound chemicals management

Outcome 4: Knowledge Management and M&E

Consistent with UNDP practice the Belarus POPs project design addresses knowledge management and Monitoring and Evaluation (M&E), both of which were prepared during the Project Preparation Grant (PPG) stage. As part of UNDP's supervision activities, the M&E includes safeguard monitoring.

2.5 Expected results

The key expected result of the POPs project is the elimination and secure containment of POPs, particularly PCBs and OPs, that pose a significant threat to people and the environment. The POPs project also contributes to the Republic of Belarus meeting its commitments under the international SC. POPs project environmental benefits defined in the ProDoc include:

- Direct environmentally sound elimination of an estimated 2,370 t of PCB-containing equipment containing approximately 1,025 t of PCBs themselves;
- Provision for removal from service (phase out) and secured consolidated storage to prevent near and medium-term release of PCBs chemicals of an additional 730 t of PCB-containing equipment during the project;
- Provision for future systematic accelerated phase out of remaining in-service PCB-containing equipment (estimated 665 t) consistent with SC obligations;
- Direct environmentally sound destruction of 1,900 t of OPs and development of national capability for future elimination of 3,913.9 t of OPs and associated contaminated soil;
- Provision for secure containment and monitoring of an estimated 3,827.2 t of OPs and contaminated soils in burial sites including detailed site assessment and design of future site remediation work.

The POPs project includes socio-economic benefits arising from capacity development of

government and non-government staff engaged in the management and elimination of PCB contaminated equipment and OP hazardous waste. The POPs project also contributes to the establishment of sustainable public-private partnerships for ongoing POPs and other hazardous waste management. Indirect social benefits are derived through the prevention of environmental contamination by POPs that could potentially translate into serious negative health impacts to the population in the medium to long term.

The POPs project is also intended to enhance the existing knowledge management of hazardous wastes through the creation of a comprehensive, transparent national database supported by a robust legal and policy framework with standard operating procedures for hazardous waste management and increased awareness of the dangers and best management practices by the general public.

2.6 Total resources

The POPs project received a GEF-6 Trust Fund grant of USD $8,400,000. And the ProDoc identified total co-financing of USD $50,807,890, based on the following contributions: UNDP USD $704,880; Government USD $32,423,010; Other partners USD $17,680,000.

Total resources identified in the ProDoc for the POPs project was, USD $59,207,890.

2.7 Main stakeholders – Summary list

The main project stakeholders in the POPs project included the principal government ministries involved in POPs management. The key government ministries are the Ministry of Natural Resources and Environmental Protection (MNREP) which is also the National Executing Agency and the GEF and SC focal Points, the Ministry of Energy which is responsible for coordination of PCB phase out activities with private sector electrical utility companies, the Ministry of Transportation and Communication assisting in the coordination of PCB phase out activities among transportation companies such as Belarusian Railways and the Ministry of Agriculture and Food assisting in the coordination of regional and local agricultural organization in the management and environmental sound destruction of existing OP stored in warehouses and burial sites.

The principal industrial stakeholders include SE “BelEnergo” involved in electrical transmission and distribution with PCB containing equipment, Agricultural Enterprises engaged in OP storage and burial sites, Executive Committees from Vitebsk, Grodno, Brest, Mogilev, and Minsk regions and the Gomel City Executive Committee responsible for the Complex for Processing and Disposal of Toxic Waste.

The following Non-Government Organisations (NGO) stakeholders were engaged given their roles in public awareness raising. They include the NGOs Ecological Initiative, Green Economy, Center for Environmental Solutions, and Ecocenter for children – Ladybug and the institution Surrounding World.

2.8 Key partners involved in the project

The key partners involved in the project and their roles included the following:

- UNDP was responsible for project development and oversight, risk management, MTE

and TE evaluation. UNDP also provided assistance with international procurement;

- MNREP was the National Executing Agency, with the the GEF and SC focal Points. MNREP is also responsible for national policy and project implementation coordination;
- OP and PCB equipment owners participating in the removal and destruction of POPs; and
- NGOs participating in awareness raising on POPs.

2.9 Context of other ongoing and previous evaluations

The TE was conducted as part of the overall monitoring and evaluation plan outlined in the ProDoc. As identified in the ProDoc, two independent evaluations are to be conducted for the POPs project: a MTR following completion of the second PIR (MTR was completed December 2021); and a TE to be conducted three months prior to project closure.

All of the POPs evaluations materials, such as, the inception workshop report, Project Board meeting minutes, PIR, MTR, UNDP site visit Back to Office Reports provide information for the TE.

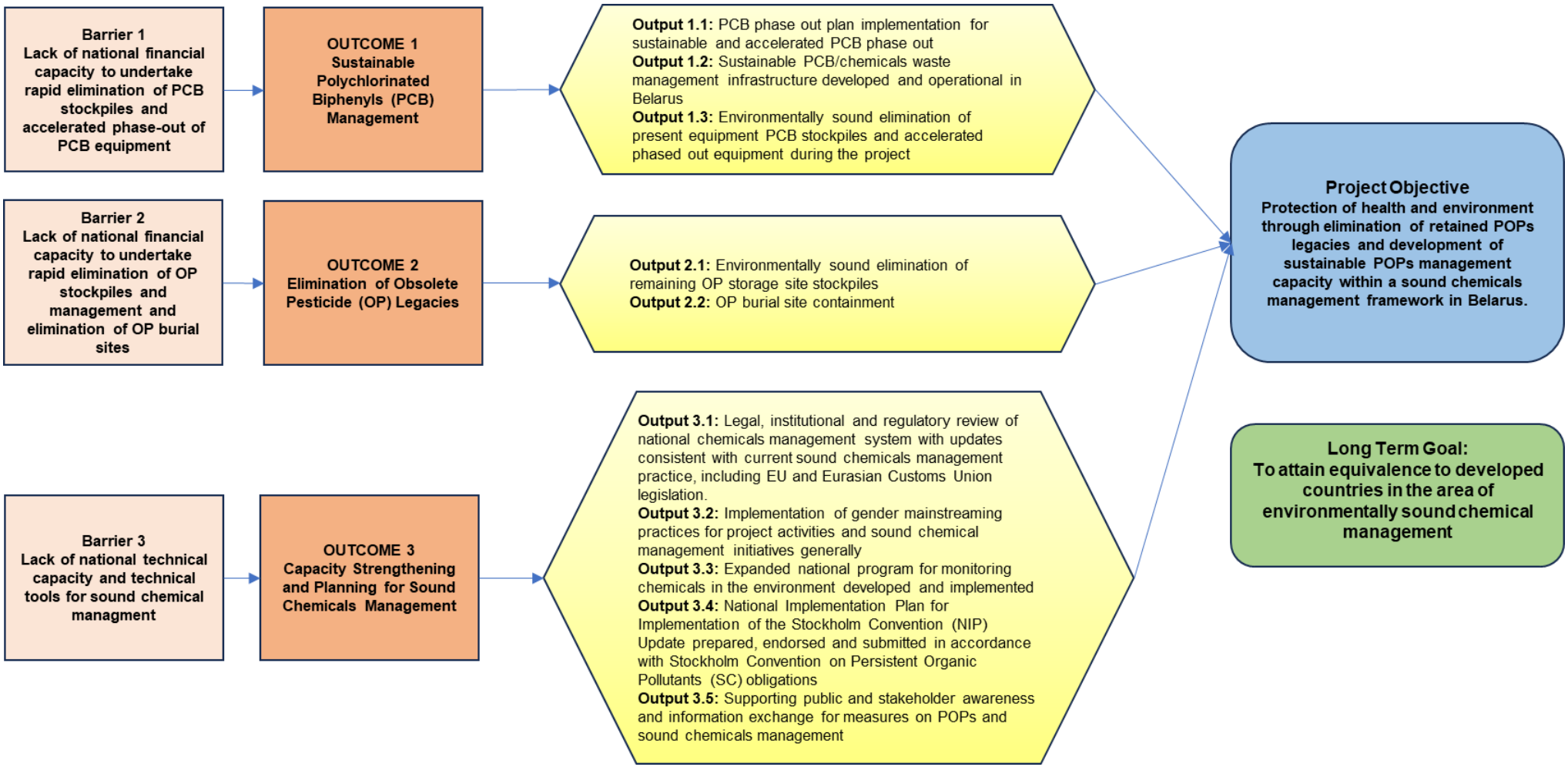
Also available for review by the TE is the Independent Auditor's Report on a Special Purpose Audit Engagement on Statement of Expenses – the Combined Delivery Report (UNDP CDR) completed March, 2023.

2.10 Theory of Change

The ProDoc articulated a logical Theory of Change (ToC) for the POPs project to provide key support and resource inputs to a strongly committed country with a demonstrated track record and significant existing capacity in pursuing the overall objective of addressing its POPs and related chemical waste legacies. The POPs project was intended to allow Belarus to sustain this commitment in both the immediate period and beyond allowing it to attain equivalence to developed countries in this key area of environmental management.

The ToC (**Figure 1**) includes three project Outcomes, with Outcomes 1 and 2 being the main focus with the largest proportion GEF financial investment, which is to address the elimination of PCBs and OPs respectively. Outcomes 1 and 2 will also provide technical capacity development to support ongoing POPs management foreseen necessary after project closure, such as elimination of OP burial sites, completing nation-wide PCB phase out, and establishment of the capacity for ongoing hazardous waste management infrastructure. Outcome 3 is to strengthen the legal, institutional, monitoring and regulatory management to achieve sound chemical management that meets international standards. Outcome 3 also supports increased public and stakeholder awareness and information exchange of sound chemical management.

Figure 1. POPs project Theory of Change



3 Findings

The following is a summary Evaluation Ratings Table based on the narrative evaluation analysis presented in the related sections of report **Section 3 Findings**.

Monitoring and Evaluation	**Ratings***
M&E design at entry	S
M&E Plan Implementation	S
Overall quality of M&E	S
Implementing Agency (IA) & Executing Agency (EA) Execution	
Quality of UNDP Implementation – Implementing Agency	S
Quality of Execution – Executing Agency	S
Overall quality of Implementation / Execution	S
Assessment of Outcomes	
Relevance	HS
Effectiveness	HS
Efficiency	S
Overall Project Outcome Rating	S
Sustainability	
Financial resources	MU
Socio-political	L
Institutional framework and governance	L
Environmental	L
Overall likelihood of sustainability	ML

* For Rating scales see **Annex 6**

3.1 Project Design/Formulation

The POPs project provided a clear objective to address POPs legacy hazardous wastes and development a sound chemicals management framework for the future. The four POPs project Outcomes were broken into four logical categories of, PCB management, OP elimination, capacity development for sound chemical management and robust, transparent knowledge management of hazardous wastes.

Each of the four POPs project Outcomes were supported by feasible outputs that could be completed within the time, budget and capacity of the project. As a signatory to the SC the outputs supported important country priorities supported by the government implementing partners.

The formulation of the POPs strategic results framework remained unchanged during project implementation and has ensured alignment with international and national priorities with contributions to the following:

- UNDP Country Program Document Outcomes: 3.1: Solutions developed at national and subnational levels for the sustainable management of natural resources, ecosystem services, chemicals and waste: 3.2: Legal and regulatory frameworks, policies and institutions able to ensure the conservation and sustainable use of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation; and

- GEF-6 Chemicals and Waste Objectives and the associated Outcome 2.3: All countries have completed their NIP updates under the Stockholm Convention and have established a sustainable mechanism to update them in the future; and Outcome 3.1: Quantifiable and verifiable tonnes of POPs eliminated or reduced.

The POPs project supports broader development impacts by reducing the risk of exposure to hazardous substances that have the potential to impede development. The capacity and knowledge management development of the POPs provide a foundation to build an environmentally sustainable economy. The POPs project also made a significant effort to work towards gender equity and include women in POPs awareness raising directly related to their needs.

3.1.1 Analysis of Results Framework: project logic and strategy, indicators

Analysis of the Theory of Change

Analysis of the ToC was undertaken through an assessment of Impact Drivers (ID) and Assumptions (A) associated with the project objective and outcomes as shown in **Annex 7 Table 7.1**. The validity of ID and A were further assessed based on the status of project achievements and the Intermediate State (IS) achieved (**Annex 7 Table 7.2**). The ToC analysis follows the methods and guidance provided in the UNDP Review of Outcomes to Impacts (RotI) Handbook (2009).

The analysis provided in **Annex 7** shows the POPs project ToC has effective impact drivers that are based on valid assumptions. The sound logic of the ToC is validated in the intermediate states achieved for the project objective and outcomes which demonstrate excellent progress towards achievement of the long-term goal.

The implementation of future POPs projects will require refinement of the current ToC due to the achievements of the current POPs project. A new ToC is necessary to build on the enhanced capacity for POPs management in Belarus, the need to focus on the elimination of OP burial sites, and use of the model established for PCB disposal (characterization, consolidation, repackaging and transport for environmentally sound disposal).

SMART Review of Strategic Results Framework Indicators

The TE reviewed and assessed the 12 SRF indicators and targets using SMART (Specific, Measurable, Achievable, Relevant Time-bound) criteria (see **Annex 8**). The analysis showed the 12 SRF indicators meet SMART ***criteria*** in large measure.

The TE noted, however, that many of the SRF indicators include several (up to 8) end-of-project targets, all of which must be completed for full achievement of the indicator. Including multiple targets for a single indicator makes an evaluation of achievement when some targets are fully achieved, others partially achieved and some not achieved. It is preferrable that each indicator has a single end of project target.

> **Recommendation 1.** Develop Strategic Results Framework indicators to be “specific” by identifying a single end-of-project target.

3.1.2 Assumptions and Risks

While there are significant risks to health and the environment posed by POPs, there are also risks associated with the management, transportation and disposal of POPs that may impact humans and/or the environment.

The POPs Project Identification Form (PIF) made the following important observations in regard to POPs project risks:

- the POPs project will contribute to comprehensive analytical site assessment to better define the location of POPs and prioritize efforts for their environmentally sound disposal;

- capacity development would support MNREP efforts to develop comprehensive risk assessment and knowledge management systems for POPs containment, monitoring and disposal; and

- there are higher risks generally associated with POPs being distributed in the broader environment for women, specifically related to their bioaccumulation and transfer through breast milk.

The PIF identified five risks and provided risk mitigation strategies. All risks were evaluated as ***low risk***. The five PIF risks were carried over to the ProDoc with a sixth risk added (see **Annex 9**). The PIF and ProDoc assumptions regarding risk were considered well-founded and appropriate mitigation strategies were proposed. TE report **Section 3.2.6** provides an analysis of the risks identified in the context of POPs project implementation.

3.1.3 Lessons from other relevant projects incorporated into project design

The POPs project is built on the successful GEF/World Bank POPs elimination project. The current POPs project design used a combination of both proven and where appropriate new and innovative approaches to overcome the remaining barriers to environmentally sound disposal of POPs in Belarus and effective ongoing management of hazardous chemicals that meets international standards.

3.1.4 Planned stakeholder participation

During PIF preparation a wide range of government, private sector and NGO stakeholders were consulted, many of whom were engaged in an earlier GEF-4 project that similarly targeted POPs elimination.

The planned stakeholder participation and their roles in the POPs project included relevant government ministries involved in the environmental regulation, management and disposal of POPs and ministries involved in the historic use, management and current storage of POPs. Planned stakeholder participation also includes industrial users of POPs and NGO advocates for environmentally sound POPs disposal. The planned stakeholder participation includes:

Principal Government / Institutional Stakeholders

- Ministry of Natural Resources and Environmental Protection (MNREP) as the National

Executing Agency and the GEF and SC focal Points. MNREP is also responsible for national policy and project implementation coordination;

- Ministry of Energy is responsible for coordination of PCB phase out activities with private sector electrical utility companies;
- Ministry of Industry assisting in the coordination of PCB phase out activities of industrial enterprises;
- Ministry of Transportation and Communication assisting in the coordination of PCB phase out activities among transportation companies such as Belarusian Railways;
- Ministry of Agriculture and Food assisting in the coordination of regional and local agricultural organization in the management and environmental sound destruction of existing OP stored in warehouses and burial sites;
- Ministry of Emergency Situations Acts is the government agency responsible for regulation of provisions for the transport of dangerous goods. Also, a service provider for hazardous waste cleanup, particular for OP burial sites;
- Ministry of Healthcare provides input and participation related to the development of a national sound chemical management program and associated regulation and monitoring activities;
- State Custom Committee Coordination provides support related to export and import of hazardous waste;
- Ministry of Finance provides confirmation of co-financing commitments during project implementation
- Republican Center for Analytical Control in the Field of Environmental Protection operates the national POPs and chemicals monitoring programs for the POPs project;
- Belarusian Scientific Research Center “Ecology” under the MNREP is the main information and analytical center of the National System for Monitoring the Environment in the Republic of Belarus. Also responsible for maintenance and update of the register of PCB owners and OP storage (electronic POPs database).

Principal Industrial Stakeholders

- SE “BelEnergo” and associated electrical transmission and distribution utilities engaged due to their role in ownership, administration and custody of PCB stockpiles and in-service equipment;
- Belarusian Railways engaged due their role in ownership, administration and custody of PCB stockpiles and in-service equipment;
- Other Industrial PCB holders engaged due to their ownership, administration and custody of PCB stockpiles and in-service equipment;
- Agricultural Enterprises engaged due to their role as OP storage and burial site owners
- Gomel City Executive Committee responsible for the Complex for Processing and Disposal of Toxic Waste of the Gomel Region and a service provider for storage and disposal of OPs and PCBs with support and technical assistance from the POPs project.

- Twenty-two rural storage owners of OPs in Vitebsk and Grodno regions who signed contracts for removing their waste within the framework of the project.

Non-Government Organisations (NGO)

- Green Cross Belarus is an NGO active in public consultation activities related to OPs;
- Ecological Initiative is an NGO active in public awareness activities related to POPs and the Stockholm, Basel and Minamata Conventions;
- Green Economy is an NGO that collaborates PCB owners;
- Other NGOs which may contribute to increasing public awareness of POPs.

The engagement of stakeholders in development of the PIF and ProDoc led to substantial financial co-financing from government, private sector and NGO stakeholders.

3.1.5 Linkages between project and other interventions within the sector

The POPs project builds on the World Bank GEF-4 POPs Stockpile Management Project in Belarus which addressed priority POPs stockpiles and legacies. The current POPs project is intended to bring Belarus in conformity with international standards of hazardous chemical management, thereby moving beyond Soviet era POPs legacies.

The POPs project also worked in close coordination with a UNIDO project in Belarus which was intended to establish high temperature incineration of POPs within the Chechersk facility.

The POPs project participated in the activities of the project "*Public involvement in environmental monitoring and improvement of environmental management at the local level*", funded by the European Union and implemented by the UNDP in Belarus in partnership with the Ministry of Natural Resources and Environmental Protection. The POPS project participated in a seminar and press conference providing results of the POPs project under the title "*Creation of a mechanism for the environmentally sound disposal of hazardous wastes containing persistent organic pollutants* (POPs)".

The POPs project has also coordinated with the Ministry of Health, which is implementing a UNEP project to prepare for the ratification of the Rotterdam Convention by the Republic of Belarus.

3.1.6 Gender responsiveness of project design

The UNDP gender marker for the POPs project is GEN 1, indicating the project makes a limited contribution to gender equality and gender equality is not consistently mainstreamed, nor is it a critical part of project design. Nonetheless the ProDoc, notes the project provides support and capacity strengthening for POPs and hazardous waste management, gender mainstreaming.

The POPs project has been responsive to issues identified in the Gender Impact Assessment (ProDoc Annex 2), which identified direct impacts to women as they face a higher risk of exposure to POPs and there are bioaccumulation concerns related to the transfer of POPs through breast milk that will impact children. Rural populations have a high proportion of older women who also have had a higher risk of exposure to OP in rural storage facilities.

In terms of gender equality and empowerment, the POPs project intends to continue the positive trend reflected in the deliberate policy of ensuring a high level of involvement of highly qualified professional women in the direction and implementation of the project. Including the involvement of women project preparation (50% women), the representation of women stakeholders (65% women) and the woman who is the main champion directing the project at the most senior level, the First Deputy Minister of MNREP, acting as the national and regional GEF political and operational focal point.

In response to the gender issues identified in ProDoc Annex 2 is POPs project Output 3.2 – *Implementation of gender mainstreaming practices for project activities and sound chemical*. which includes the following three activities:

i. increased awareness respecting PCBs in small scale closed applications among households and specifically women;

ii. increased awareness respecting rural OPs among local women; and

iii. achieving gender equity in POPs project employment at a supervisory and technical direction level.

3.1.7 Social and Environmental Safeguards

This POPs project implementation strategy is intended to reduce risks and impacts on public health associated with hazardous waste in the Republic of Belarus. There are, however, social and environmental risks inherent in the environmentally sound elimination of POPs that were considered in the Social and Environmental Screening Process (SESP) conducted during project design, with the results of the SESP provided in the ProDoc Annex F.

The SESP identified five risks with potential impact to both the environment and to human health. The SESP identified the risks of the POPs project as, ***low*** and readily mitigated, however, these risk ratings were based on the POPs project following the risk treatment and management measures that were identified for each risk to reduce the likelihood of escalating risks (**Annex 10**).

The POPs project included the following elements to address risks associated with working with POPs:

- Specification of an Environmental Management Plan (EMP) in project tender documents, binding service providers to specific actions and monitoring when working with POPs;
- PCB and obsolete pesticide materials will be transported by qualified/licensed carriers meeting national and international standards to certified hazardous waste facilities outside the country for treatment/destruction/disposal; and
- Capacity development to ensure national and international standards are and technologies are applied.

3.2 Project Implementation

3.2.1 Adaptive management

The POPs project was developed during 2017-2018. Several people who took part in the development of the ProDoc were interviewed during the field stage of the TE providing information on changes introduced during project implementation to overcome unforeseen challenges. The most important challenges and adaptive management strategies are noted below:

- The POPs project was scheduled to begin in 2019. During 2019 and 2020 implementation was delayed due to changes associated with the implementing agency. Initially, the POPs project was to be implemented by the Research Center "Ecology", however, during 2019 this implementer did not initiate any project activity. As a result, the project was handed over to the MNREP for implementation with the actual start of project implementation begining in 2020.

- Delays and re-structuring of implementation resulted from the Covid-19 epidemic. While there was no official country-wide lockdown associated with Covid-19 in Belarus, measures were taken to limit the spread of coronavirus that affected project implementation. With the project team hired and in place in 2020, there were delays in the implementation of educational activities due to Covid-19, and there was a transition to online tools for state enterprises and departments. Associated with the transition to online tools, there was a need to develop capacity (staff and equipment) and experience in using online tools for meetings and training exercises. Covid-19 also delayed implementation due to difficulties announcing tenders and making procurements, and with the closure of international borders there was uncertainty regarding the scheduling the transportation of POPs for disposal that affected the processing of transport and export documents.

- Late in 2020 the EU introduced sanctions on the Republic of Belarus that increased the time required for border crossing, affecting the transportation of POPs to European countries for environmentally sound disposal.

- In November 2021, a major border crossing between Belarus and Poland (Bruzgi–Kuznica) was closed by a decision of the Polish government. As this border crossing was indicated on permits for the cross-border transportation of dangerous wastes (POPs), and as the permit did not provide for an alternative border crossing for the transport of POPs, it was necessary to obtain new permits, which, delayed the implementation of the POPs transport activities for several months.

- From February 2022 as a result of a regional geopolitical crisis additional challenges arose that impacted the environmentally sound disposal of POPs from Belarus. These included:
    - Ukraine, which provided an alternate route for transporting POPs, had its border with Belarus closed;
    - In April 2022 the EU Council imposed a ban on the entry of trucks from Belarus and Russia into the EU countries, which led to Belarus imposing a ban on the

entry of trucks and trains registered in EU countries. The solution was for trucks to exchange license plates at the border to permit cross-border travel. This resulted in additional delay and an increase in the cost of the transport of POPs being sent out of Belarus for disposal; and

- On June 1, 2023, Poland introduced a ban on the transit of all types of cargo vehicles, including trailers and semi-trailers, registered in Belarus and Russia, across its territory. In response, Belarus introduced symmetrical measures and prohibited the passage of any cargo vehicles, including trailers and semi-trailers, registered in Poland, through the territory of Belarus. To overcome this challenge, the Polish company with whom the POPs project had agreement for OP disposal, offloaded OP cargo from Belarus trailers to Polish trailers at the border to facilitate transport. This measure resulted in additional delay and an increased cost to the transport of OP for disposal.

The main decisions that made it possible to achieve the main goals of the project to the maximum extent possible were:

- The maximum possible savings in budget lines that are not aimed at the preparation and removal of POPs for disposal: transfer of events to an online format, refusal to invite international experts, savings in administrative costs, transportation costs, and even salaries of project employees, etc. All saved funds were used to achieve main goals of the project.

- Prioritization of goals: preparation and removal of pesticides for disposal was chosen as the main priority. The preparation and removal of PCBs was carried out within the allocated funds. The choice of priorities was determined by the fact that the owners of PCBs are operating enterprises, the storage procedure for these POPs is carefully prescribed in legislation and is well controlled. At the same time, the owners of OPs were mostly unprofitable agricultural enterprises, which could not sometimes even provide proper storage conditions and did not have the funds necessary to dispose of POPs. Objectively, from the point of view of the danger of possibility of leakage into the environment, in some cases, OPs posed a much greater danger than PCBs.

- Direct contact with stakeholders - involved in the process of obtaining permits and transportation: Customs Committee, local authorities, management of enterprises - owners of PCBs - through the national modality of project implementation.

- Search for flexible legal solutions: concluding agreements with the Complex for processing and disposal of toxic industrial waste in Chechersk, creating consolidation sites for preparing PCB containing equipment for transportation.

- Adaptive approach to holding events in the context of the Covid epidemic: transferring the maximum possible number of events and seminars to an online format, mixed seminar formats adapted to the circumstances and qualifications of the participants - experts and project staff gathered in one room and sequentially spoke and answered questions, participants joined the event online.

The POPs project has documented the amount, type and location of POPs and developed

methods to consolidate, obtain export permits and transport POPs, enter into contracts with international partners for environmentally sound disposal of POPs. Unforeseen delays from Covid-19 pandemic and the regional geopolitical crisis have created challenges the POPs project has had to overcome, and which justify the two project extensions that will allow sufficient time to utilize the project budget and meet project targets.

The TE has reviewed and commented on the 11 MTR recommendations (**Annex 11**). The TE determined 8 of the MTR recommendations have been fully addressed. Recommendations related to the recruitment of an international POPs waste disposal expert have, for two MTR recommendations reported achievement through consultation with an international expert remotely at no cost. One MTR recommendation related to the need for review of the proposed POPs disposal technologies and qualification/certification processes at the Chechersk facility has not been achieved. Regarding Chechersk, there are other outstanding issues to achieving operationalization of the facility that are beyond the scope of the POPs project, due to the fact Chechersk operationalization is reliant upon a separate UNIDO project.

The difficulty recruiting and international POPs expert, was due in part to the NIM of the POPs project and national government rules and procedures that limit the possibility to contract international experts. Nonetheless the TE noted the engagement of experienced and qualified international experts is essential to achieving international certification for hazardous waste disposal in Belarus.

3.2.2 Actual stakeholder participation and partnership arrangements

The POPs Project Board (PB) composed of representatives from participating government ministries, UNDP and the PMU held 13 meetings between January 2020 to August 2023. The meeting formats included in-person, online and email/vote-in modes to review and discuss project implementation. TE review of PB minutes shows the PB was engaged and provided meaningful input to address the challenges faced in project implementation.

Key governmental agencies engaged in the project and their main roles include:

- The MNREP as the national executing agency took responsibility for the POPs project achieving the indicator targets. The MNREP, which controlled the allocation of the funds, and it carried out supervision of the PMU, provided general management of the project.

- The Ministry of Agriculture and Food, the Ministry of Industry, and the Ministry of Energy had largely informative roles in the POPs project, disseminating relevant information about the project to POPs owners and to local authorities engaged in the project. They also participated in project meetings and, where necessary, provided general supervision of the implementation of the project activities.

- The state agency called the Republican Center of Analytical Control in the Field of Environmental Protection, was a beneficiary in the POPs project, as it received an Adsorbed Organic Halides (AOX) analyzer, complete with auxiliary equipment and operating materials. The analyzer is set up in the Gomel laboratory to support local state monitoring that ensures wastewater from pulp and paper industries does contain AOX.

Several research institutes supported the POPs project by providing technical services as project contractors. Services included the examination of OP burial sites, awareness-raising among POPs owners and the public and development of an economic model for the liquidation of sites used for OP disposal. The research institutes included:

- Republican Research Unitary Enterprise "Bel Research Center Ecology";
- Institute of Environmental Management of the National Academy of Sciences of Belarus, Republican unitary enterprise;
- Central Research Institute for Comprehensive Use of Water Resources (RUE TSNIIKIVR); and
- The Scientific and Practical Center for Hygiene participated in the POPs project as the agency responsible for delivering educational programs targeting women's health and safety.

OP owners participated in the POPs project and were beneficiaries in the context that all financing required from the removal and disposal of OPs and the cleaning of OP storage warehouses was provided by the project. OP owners received information about the project through local authorities who received official communications from the MNREP and the Ministry of Agriculture and Food. OP owners were not required to financially support the disposal OPs as it was recognized they did on have the financial resources for OP disposal.

PCB equipment owners had a more active role in project activities providing both direct financial support and in-kind support in the form of staff and transportation of PCB containing equipment. PCB equipment owners are required to manage PCBs as defined legislation and they have experience in handling the equipment containing PCBs. Under the POPs project the PCB equipment owners signed contracts where they assumed a financial obligation to prepare waste for transboundary movement which amounted to at least 25% of the total cost of environmentally sound destruction of PCB containing equipment. The PCB equipment owners assisted in repackaging and transportation of PCB containing equipment to consolidation centers.

NGOs took part as participants in project events, their role being more formal than actually "participatory" according to feedback received during the TE field mission. Of the five NGOs listed in the ProDoc, the TE obtained evidence of the participation four NGOs. . There has been a decline in NGO activity and the participation of NGOs in decision-making processes. Nonetheless, it would be beneficial to mobilize NGOs to take a more active role in the dissemination of POPs project education materials.

Recommendation 2. Encourage the participation of NGOs in POPs management activities by enhancing their capacity (knowledge, financial support) to disseminate POPs education materials.

3.2.3 Project Finance and Co-finance

The distribution of GEF financing shows the focus of the POPs project on Outcomes 1 and 2 with $4,123,560 (49%) of planned funding directed at the management and elimination of PCBs and $3,051,820 (36%) directed as the elimination of OPs (**Table 1**). The remaining $1,2224,620 (15%) targeted improvement of legislative framework and monitoring of POPs, public education on the risk posed by POPs and project management. The POPs project financing has therefore dedicated 85% of the GEF grant towards the direct elimination of the serious threat of POPs.

The POPs project management planned financing was $399,800 or 5% of the total GEF grant; the actual project management cost was less at, $219,312 (3%), demonstrating an efficient use project funds (**Table 1**).

Table 1. Planned and Actual Expenditure as of 28 February 2024 GEF Financing of POPs Project (Data for planned GEF financing from ProDoc, all figures in USD)

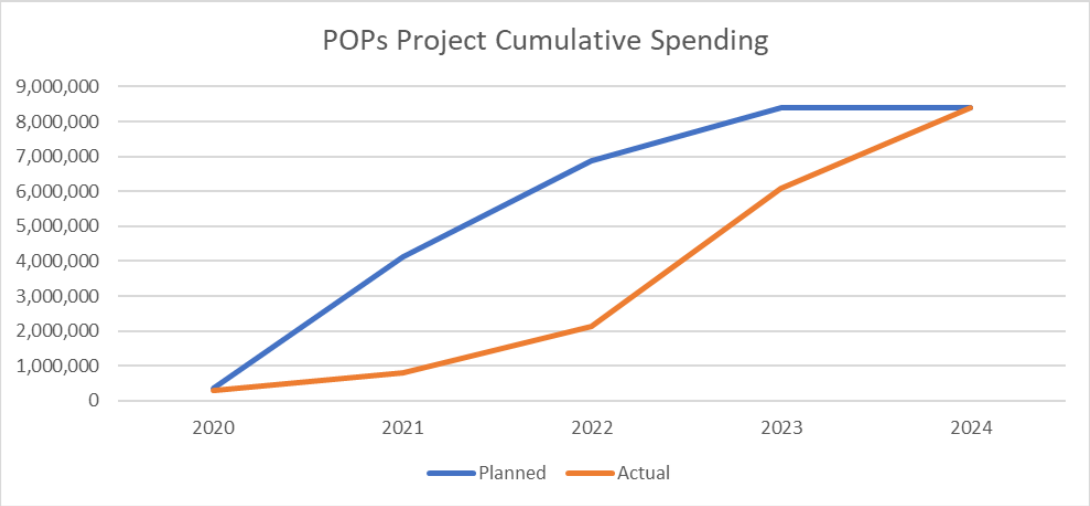
Project Component	2020		2021		2022		2023		2024	Total	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Planned	Actual
Outcome 1	117,150	52,703	1,224,650	54,885	1,707,200	209,132	1,074,560	2,328,619	1,538,174	4,123,560	4,183,514
Outcome 2	69,900	34,353	2,084,730	27,156	684,480	971,253	212,710	1,538,175	729,282	3,051,820	3,543,219
Outcome 3	40,900	99,755	348,800	123,053	217,120	72,900	68,000	46,307	4,300	674,820	346,316
Outcome 4	21,300	12,718	21,000	32,445	47,660	17,954	60,040	19,873	24,650	150,000	107,639
Project Management	114,335	82,070	95,155	51,671	95,155	36,760	95,155	41,545	7,265	399,800	219,312
Totals	**363,585**	**281,598**	**3,774,335**	**532,212**	**2,751,615**	**1,307,998**	**1,510,465**	**3,974,520**	**2,303,671**	**8,400,000**	**8,400,000**

Table 2. Planned and Actual Co-Financing of POPs Project as of 28 February 2024 (Data at CEO Endorsement from ProDoc)

Co-financing (type/source)	UNDP (US$)		Government (US$)		Private Sector (US$)		Donors (US$)		NGOs (US$)		Total (US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	384,880	0	32,383,010	20,358,863	1,190,000	1,493,442	16,480,000	2,728,077	10,000	10,000	50,447,890	24,590,382
Loans/ Concessions												
In-kind support	320,000	0	40,000	40,000							360,000	40,000
Other												
Totals	**704,880**	**0**	**32,423,010**	**20,398,863**	**1,190,000**	**1,493,442**	**16,480,000**	**2,728,077**	**10,000**	**10,000**	**50,807,890**	**24,630,382**

Analysis of cumulative project spending highlights that delayed some of the initial planned spending. One factor was restrictions arising from the Covid-19 pandemic, but more importantly the elimination of POPs requires considerable upfront planning and coordination which is completed at relatively low cost before the high cost expenditures of transport and environmentally sound disposal are incurred (**Figure 2**). Cumulative spending also shows with the extensions provided the POPs project will expend the entire $8.4M GEF grant.

Figure 2. Analysis of POPs Project Cumulative Spending



The POPs ProDoc required the owners of PCB containing wastes provide 25% of the cost of PCB elimination as co-funding to the POPs project. **Table 2** shows $1,493,442 or 126% of the expected co-financing was received. This demonstrates an excellent commitment by PCB equipment owners to the elimination of POPs, with the private sector contributing 27% of Outcome 1 financing (GEF $4,123,560; Private Sector co-finance $1,493,442).

Planned EU and UNDP co-financing was through the EU funded program “Technical Assistance to Support Effective Air Emissions and Radiation Monitoring, and Improved Environmental Management in Belarus (SAQEM-1 Project). Of the planned EU funding of $16,480,000, the actual amount received was $2,728,077 (17% of planned) and planned UNDP co-financing of $704,880 was reduced to $0 due to the regional geopolitical situation and EU sanctions imposed on Belarus.

Government co-financing of $20,398,862, achieved 63% of the target co-financing, highlighting government financial challenges that may also be related to the regional geopolitical situation and EU sanctions imposed on Belarus. A further breakdown of co-financing by government and the private sector is provided in **Table 3**.

Table 3. Sources of Co-Financing (data as of February 28th, 2024)

Sources of Co-Financing	Name of Co- Financer	Type of Co-Financing	Co-Financing confirmed at CEO Endorsement (US$)	Actual Amount Contributed at TE (US$)	Actual Amount Received (%)
GEF Agency	UNDP	Cash	384,880	0	0%
GEF Agency	UNDP	In kind	320,000	0	0%
Republic of Belarus	Ministry of Natural Resources and Environmental Protection	Public Investment	32,423,010	310,455	63%
	Ministry of Natural Resources and Environmental Protection	In-kind		40,000	
	Ministry of Energy	Public Investment		19,345,226	
	Gomel Oblast Administration	Public Investment		543,182	
	Grdno Oblast Administration	Public Investment		160,000	
	Republic of Belarus Sub-total		**32,423,010**	20,398,863	63%
Private Sector	PCB Owners	Cash	1,190,000	1,493,442	126%
Donors	EU funded programs (administered by MNREP)	Cash	16,480,000	2,728,077	17%
Civil Society	Green Economy NGO	Cash	10,000	10,000	100%
Total Co-Financing			**50,807,890**	**24,630,382**	**49%**

An independent audit conducted for the POPs project in 2022 determined the Statement of Expenses, Combined Delivery Report (UNDP CDR) were:

(i) in conformity with the approved project budgets;

(ii) in compliance with the relevant UNDP regulations and rules, policies and procedures;

(iii) used for the approved purposes of the project; and

(iv) supported by supporting documents.

Based on the Independent Audit, the financial risk rating for MNREP was assessed as ***Low***.

3.2.4 Monitoring & Evaluation

The ProDoc includes a Monitoring and Evaluation (M&E) Plan with detailed description of monitoring oversite responsibilities and M&E reporting requirements. Mandatory GEF requirements were documented in a ProDoc table that identified all necessary M&E requirements, responsible parties, budgets and timeframes. The M&E budget utilizes US $150,000 of the US $8.4M GEF, which, at 2%, meets the GEF M&E budget principle of 2 to 5 % of the total grant.

Annex B of the ProDoc provides a comprehensive table outlining a monitoring plan to measure and report on achievement of SRF indicator targets. The table includes: a description of the SRF indicators; data sources and collection methods; frequency for data collection; agency responsible for data collection; means of verification; and assumptions and risks. Annual progress reports prepared by the PMU and MNREP provide detailed information on project activities which may be used to verify the achievement of the POPs project indicators.

As noted in **Section 3.2.2** the PB minutes showed the PB provided monitoring oversite and input to assist in overcoming challenges faced in project implementation.

The TE assessed project indicators (**Section 3.1.1**) and determined the indicators met SMART criteria and baselines were established where necessary. Reporting on the achievement of project indicators was updated annually by UNDP in Project Implementation Reports (PIR). PIR assessment ratings were in line with MTR ratings and are in line with the TE ratings. To assist in the completion the TE assessment of indicator achievement the PMU was able to provide an update on activity achievements that are planned for completion prior to project closure in October 2024.

Monitoring & Evaluation (M&E)	Rating
M&E design at entry	Satisfactory
M&E Plan Implementation	Satisfactory
Overall Quality of M&E	Satisfactory

3.2.5 Project Implementation, Execution, and Coordination

UNDP Implementation and Oversight

UNDP delivered effectively on the development of a comprehensive PIF and ProDoc providing a logical foundation and clear guidance for implementation of the POPs project.

The PMU and MNREP reported the UNDP CO consistently provided good support to POPs project when needed. With the introduction of UNDP's new management procedures using UNDP provided assistance by facilitating large financial payments to international contractors engaged in POPs disposal. UNDP was a regular and active participant in PB meetings as determined from a review of meeting minutes.

The TE acknowledges UNDP is well positioned to implement infrastructural projects based on the presence of a country office that has established relationships with government and non-government institutions and an efficient and transparent project management system, in place. When a project faces challenges UNDP staff in-country can be contacted and provide assistance, including access to international technical advice and procurement through UNDP's regional and global offices. Other agencies that are not present in-country, such as UNIDO, can face difficulties in the implementation of large projects which encounter challenges, and this may result in less effective and unexpected results.

UNDP has provided comprehensive oversite of the POPs project demonstrated in annual PIR that provide detailed documentation of progress towards the achievement of indicators, comprehensive narrative reporting of project progress, challenges and adaptive management, project progress on gender-related issues, updating of project risks, including reclassifying and identifying new risks and reviewing SESP risks, and documenting project-related communications.

UNDP important assistance to the POPs project through payments UNDP made to international contractors related to the transport and permanent disposal of POPs outside Belarus.

Quality of UNDP Implementation/Oversight - Rating: Satisfactory (S)

Implementing Partner Project Execution

The MNREP and PMU have effectively and efficiently implemented project activities leading to the achievement of project indicator targets. The TE noted that meetings were held regularly and all stakeholders received comprehensive information about the progress of the project. The MNREP effectively sought support from relevant ministries and agencies and the TE found support was provided where needed. The MNREP and PMU followed direction provided by the PB when planning implementation of project activities.

MNREP and the PMU have carefully managed the risks associated with POPs disposal, ensuring contractors meet internationals standards for the handling, transport and permanent disposal of POPs. Capacity development and awareness raising activities contribute to an overall reduction of risk of exposure to POPs.

The PMU have contributed to completion of annual PIR, including narrative reporting of project progress, challenges and adaptive management strategies intended to contribute to the

achievement of POPs indicator targets.

The challenges of Covid-19 were overcome by switching to online learning and communication tools, including the provision of laptops where necessary for virtual communications. The changing regional geopolitical situation led to challenges exporting POPs for disposal, and while this has caused delays, effective project execution by the implementing partner has ensured the POPs project will achieve the targets for POPs disposal during the project extension to October 2024.

Two MTR recommendations cited the need to recruit a qualified international expert for the POPs project. UNDP CO and the UNDP RTA acknowledged the need to recruit an international expert for the POPs project as recommended by the MTR. The MNREP management response to the MTR, accepted the recommendations to recruit a qualified international expert. At the time of the TE it was evident recruitment of an international expert was unlikely. The PMU reported virtual consultation with an international expert on POPs issues were undertaken to address the two MTR recommendations.

The quality of implementing partner execution is considered ***satisfactory*** based on the minor shortcomings of delayed POPs project startup (*i.e.*, October 5th, 2018 ProDoc Signature date with active project implementation beginning January 1st, 2020) and the difficulties MNREP encountered with payment of international POPs environmentally sound transportation and disposal contracts and engagement of a qualified international POPs waste management expert.

Quality of Implementing Partner Execution - Rating: Satisfactory (S)

POPS Overall Project Implementation and Execution
There has been good communication, coordination and adaptive management by all project stakeholders resulting in effective implementation and completion of project activities within the two project extensions provided.

Overall quality of Implementation/Oversight and Execution - Rating: Satisfactory (S)

3.2.6 Risk Management

The TE has re-evaluated the risk ratings following UNDP's Enterprise Risk Management (ERM) Risk Evaluation Matrix and concluded the ratings remain low based on their likelihood of occurrence and potential impact should they occur (**Annex 9**).

The POPs project risk management was reviewed and reported on annually in the UNDP PIR 2020 to 2023. Emerging risks that were identified and mitigation measures proposed included:

- managing the impact of Covid-19 by moving to virtual communication tools and to suppling personal protective equipment for project personnel and government and private sector staff engaged in project activities;

- the increasing cost of POPs disposal, which in part was offset by more favorable USD-EU exchange rates, but also led to recommendations to seek additional funding for POPs disposal;

- multiple factors causing delays in the export of POPs for environmentally safe disposal led to recommendations to request two project extensions; and

- the need to recruit a qualified international expert to provide assistance to the Chechersk complex was raised several times, but remained unresolved, in part, due to the UNIDO project's inability to operationalize the high temperature disposal facility.

The TE did not identify any additional risks to those identified in the ProDoc and PIR.

3.2.7 Social and Environmental Standards

SESP risks were evaluated annually in the PIR.

The PIR for 2021 elevated Risk 3 from ***Low*** to ***High*** to ensure close attention to the work of sub-contractors and careful selection of partners with due diligence. PIR 2021 stated:

The significance of the Risk 3 of SESP is proposed to be changed to High as there was a fact of explosion on one of the plants - operator of dangerous waste that is involved in the project implementation.

The PIR (2021) provided the following additional mitigation measures for Risk 3:

1. Request certificates from POPs destruction plants, confirming the compliance of the installation with international safety requirements for the destruction of hazardous waste;

2. In parallel, sign several agreements with different hazardous waste destruction plants in order to have an alternative in case of force majeure and not to go beyond the terms of the project.

The PIR 2023 continued to acknowledge the significant potential SESP risks associated with hazardous waste management procedures The PIR 2023 suggested risks need to be rated as ***substantial*** to ensure risks are properly understood and evaluated and appropriate mitigation measure are identified to minimize the risk of accidents during the handling and disposal processes. Working with reputable international waste management companies such as Tredi and Geocoma ensures quality services are provided following internationally accepted standards.

The PIR 2023 noted there was ongoing review of the Slovak company Rovami, selected for the removal and transboundary movement of 115 tons of PCB equipment and additional support from an international expert was needed to support the project team. Rovami received the necessary permissions for the transboundary movement of PCB equipment.

3.3 Project Results

3.3.1 Progress towards objective and expected outcomes

The POPs project objective has been achieved based on the support provided by the national government, the engagement of PCB equipment owners and the environmentally sound disposal of POPs achieved.

Outcome 1 has been achieved based on the development of fully functional PCB management systems is in place. While the Chechersk facility is not certified for POPS disposal, the facility is being used as an important POPs collection, characterization, repackaging and consolidation hub which is a vital link in the chain of PCB disposal. A summary of Outcome 1 achievements is as follows:

- MNREP resolution No. 62 (June 24, 2008) approved the rules on the decommissioning and consolidation of PCB equipment for removal and disposal developed by the POPs project were distributed among holders of PCB equipment and 84 technical specialists were trained in best practices;

- Environmentally sound destruction of 1,140 t of PCB containing equipment exported outside the Republic of Belarus, with plans for an additional 46 t in 2024 for a total elimination of 1,186 t of PCBs;

- Planning for PCB phase out included in the State programme for implementation 2021-2025 with mandatory co-financing from the holders/ producers of PCBs;

- organizations using cross-contamination screening methodology and170 technical staff trained and equipped with screening capability; and

- PCB reporting, tracking and inventory in upgraded, modernized national Unified POPs Database.

Outcome 2 has been achieved in large measure based on all existing OP storage facilities having been cleared, cleaned and stored OPs having been environmentally disposed. There remains a need to secure funding to implement Action Plans prepared for all OP burial sites. A summary of Outcome 2 achievements is as follows:

- 21 rural storage warehouses cleared with plans for an additional 12 rural storage warehouses to be cleared in 2024, for a total of 33 rural storage warehouses;

- Environmentally sound destruction of 921 t of OPs completed, with plans for an additional 630 t in 2024 for a total of 1,551 t of OPs ;

- site assessments completed**;**

- action plans completed**;** and

- 1 burial site has local budget funds allocated in State programme for 2021- 2025 (Petrikov burial site).

Outcome 3 has been achieved given the legislative and policy framework and technical capacity is in place for sound chemical management in Belarus. Nonetheless, with limited financial resources it is unclear to what extent sound chemical management practices will be implemented. A summary of Outcome 3 achievements is as follows:

- awareness raising and training, including events targeting women, including:
    - 7 online awareness raising seminars with government and non-government

speakers targeting owners of POPs containing waste
    - 3 public consultations regarding POPs legislation attended by 20 representatives of public and private organizations
    - 6 NGOs engaged to make presentations at a project sponsored public awareness raising seminar
    - 11 in-person seminars were held on the impact of household PCBs on urban women's health
    - 8 in-person seminars were held on the impact of OPs on rural women's health
    - 10 in-person seminars were held on chemical management targeting women
    - 3 training programs on the environmental monitoring program completed
    - 16 online events were held to raise awareness of POP-containing waste, especially women of reproductive age and other stakeholders
    - 15 public information products released

- legislative and policy frameworks:
    - Ratification of Rotterdam Convention in progress
    - Draft law on ratification of Minamata Convention developed and ratification process officially started
    - 8 Technical Normative Legal Acts (TNLA) developed and approved to upgrade national environmental monitoring program

- enhanced measurement and reporting on POPs:
    - An Instruction on accounting for the production of wastes (including POPs) that applies to all organizations was developed and approved
    - AOX (adsorbed organic halides) analyzer and auxiliary equipment and materials transferred to the State Institution "Republican Center for Analytical Control in the Field of Environmental Protection".
    - As required by the NIP, an inventory and report of POPs is completed annually, including the original list of POPs from the SC and "newer" POPs as required by SC obligations
    - The POPs project assisted in the preparation and submission of 5th SC National Report due 31st August 2022
    - POPs project website operational and sustained http://soz.minpriroda.gov.by/

- activities targeting gender equality and women's empowerment;
    - POPs Project Board – 11 (69%) women and 5 (31%) men;
    - POPs technical staff – 2 (40%) women and 3 (60%) men (Note: one additional male technical staff was engaged for a short term contract);
    - 8 in-person seminars were held on the impact of OPs on rural women's health;
    - 10 in-person seminars were held on chemical management targeting women;
    - 11 in-person seminars were held on the impact of household PCBs on urban women's health; and
    - 16 online events were held to raise awareness of POP-containing waste especially women of reproductive age and other stakeholders.

The TE assessment of progress is based, in part, on signed contracts that in place to complete the transport and environmentally sound disposal of POPs to meet indicator targets (**Annex 12**) within the approved project extension to October, 2024.

> **Recommendation 3.** All OPs remaining in storage warehouses in the Minsk region should be removed and transported for environmentally sound disposal as quickly as possible and warehouses cleaned. PCB containing equipment should be transported for environmentally sound disposal as soon as possible. And the POPs project should complete the transition of POPs owners to the new Unified POPs Database, ensuring legislative confirmation of the transition.

3.3.2 Relevance

POPs are a clear and present threat in Belarus for it is highly relevant to support programs, such as the POPs project, which are directed at reducing and eliminating the threat of POPs. In reference to POPs the United Nations Environment Program (UNEP) states, s*cientific evidence shows that long-term exposure – to certain compounds under certain conditions – even to low levels of POPs can lead to increased cancer risk, reproductive disorders, alteration of the immune system, neurobehavioral impairment, endocrine disruption, genotoxicity and increased birth defects*.

The POPs project is relevant in the context of building on the World Bank GEF-4 POPs Stockpile Management Project in Belarus which addressed priority POPs stockpiles and legacies.

As signatory to the SC the Republic of Belarus has committed to the objective of the Convention which is *to protect human health and the environment from persistent organic pollutants*. The POPs project is relevant in the context several country plans that show a strong commitment to POPs elimination including:

- National Plans for Implementation of the Obligations of the Republic of Belarus under the Stockholm Convention on Persistent Organic Pollutants (2007-2010, 2011-2015, 2016-2020) that provide budgets for the elimination of POPs;
- State Program for Environmental Protection Sustainable Natural Resource Management (2016-2020);
- National Strategy for Sustainable Development and its companion mid-term document covering socio-economic development which emphasizes the need for the protection of human health and the environment from the impacts of POPs; and
- Program of the Electric Power Development (2016-2030) which refers to phasing out of PCB containing equipment.

While Belarus had made progress towards the elimination of POPs prior to the initiation of the POPs project, the project has significant relevance meeting the ongoing and future needs of

POPs elimination identified in the multiple commitments made by the Republic of Belarus noted above. The POPs project contributes to achievement of these commitments through:

- comprehensive characterization of the location and type of POPs in an updated, transparent, online database which is updated annually;
- the elimination of the serious threat posed by PCB containing capacitors that are more likely to be involved in damage and leakage;
- the characterization and strategy development for the elimination of OP burial sites;
- the elimination of all stored OPs and cleaning of OP storage warehouses; and
- the development of government and private sector capacity and development of a consolidation approach supporting ongoing POPs elimination needs after project closure.

The POPs project is relevant in regard to the engagement of government and private sector stakeholders with direct involvement in POPs management and NGOs working with communities to raise awareness of POPs risk management.

The POPs project is relevant though its support of a UNIDO project which was to upgrade the Cherchersk waste treatment/disposal management facility, including the construction of a High Temperature Incineration (HTI) facility. The POPs project also coordinated with the Ministry of Health, which is implementing a UNEP project to prepare for the ratification of the Rotterdam Convention by the Republic of Belarus.

The POPs project is highly relevant to GEF 6 Chemicals and Waste Strategy Objective 1 *Develop the enabling conditions, tools and environment for the sound management of harmful chemicals and wastes* given the capacity development provided for ongoing sound management of harmful chemicals and wastes and Objective 2 *Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances*, through the direct sound, elimination of PCB and OP waste completed by the project.

The POPs project is relevant to the Belarus United Nations Development Assistance Framework (UNDAF) 2016-2020, Area of Cooperation 3: Environmental Protection and Sustainable Environmental Management Based on the Principles of Green Economy which includes indicators and indicative financing for programs to reduce hazardous waste storage.

The POPS project is relevant in the context of the UNDP Belarus Country Programme Document (CPD) 2016-2020, Output 3.1: Solutions developed at national and subnational levels for the sustainable management of natural resources, ecosystem services, chemicals and waste. The POPs project continues to be relevant in the context of the Belarus CPD 2021-2025, priority area 2, Output 2.1.: Climate change adaptation and mitigation measures and solutions developed and introduced.

Rating: Highly Satisfactory (HS)

3.3.3 Effectiveness

The POPs project has effectively achieved 11 of the 12 project indicators in the ProDoc SRF (see **Annex 12**). Indicator 5, which was not achieved entirely, was dependent on the construction of the Cherchersk waste treatment/disposal management facility, which was managed under a separate UNIDO project. The POPs project completed all possible tasks under Indicator 5, including, OP testing, separation, identification of chemical characteristics, and preparation of a burn menu in preparation for disposal when the Cherchersk facility becomes operational.

The successful completion of activities used to assess SRF indicators is also evidence the POPs project has effectively met the project Objective and expected project Outcomes. With these achievements, the POPs project has also met the national and global goals articulated in report **Section 3.3.2**.

The PMU worked effectively with MNREP, private sector stakeholders and NGOs to develop the capacity, experience and framework needed that will allow them to continue the work required to address the elimination of the remaining PCB containing equipment and the OP burial sites and effectively manage other hazardous wastes in Belarus.

The POPs project implementation has experienced challenges (see report **Section 3.2.1**), and appropriate adaptive management strategies were adopted, however, even with adaptive implementation strategies POPs project activities could not be effectively completed with the original four year time period designated for the project. This has led to two requests for two project extensions intended to provide the time required to achieve the POPs project SRF targets, Outcomes and Objective.

The POPs project has effectively achieved gender equality targets for women's participation in the PB and the PMU, and it has effectively targeted POPs awareness raising for women in urban and rural areas (see report **Section 3.3.7**).

The rating for effectiveness for the POPs project is ***highly satisfactory*** based on the achievement of project targets under the challenging circumstances presented by Covid-19, the regional geopolitical situation which led to EU sanctions and EU countries closing some border crossings, and the constraints posed by the increased cost of POPs disposal.

Rating: Highly Satisfactory (S)

3.3.4 Efficiency

As discussed in **Section 3.2.3 Project Finance** the POPs project has a cost effective allocation of budget, having prioritized the elimination of POPs. Outcome 1 with a focus on PCB elimination utilized 49% ($4,123,560) of planned funding and Outcome 2, with a focus on OP elimination utilized 36% ($3,051,820). The remaining 15% ($1,2224,620) of the planned budget was effectively utilized to improve the legislative framework and monitoring of POPs, and on public education and awareness raising on the risks posed by POPs, with programs targeting the most vulnerable groups, including women and rural populations.

The POPs project management planned financing was $399,800 or 5% of the total GEF grant;

the actual project management cost was much less at, $219,312 (3%), demonstrating a very efficient use project funds (Table 1The POPs project efficiently adapted to changing external circumstances brought on by the Covid-19 pandemic, increasing prices for transport services and environmentally sound destruction of POPs, and the regional geopolitical situation. POPs project finances were efficiently utilized based on consideration of: (1) minimizing project administrative costs and costs for the services of international experts, (2) optimizing costs for educational and public events impacted by Covid-19, (3) increasing the priority of the OP disposal from warehouses, and (4) disposing of the maximum possible volume of the most dangerous PCBs within the allocated budget. The available funds always prioritized POPs disposal and thanks to this approach, the POPs project achieved the key POPs disposal targets.

The POPs project prioritized the disposal of PCB-containing capacitors based on:

- capacitors contain 100% sovol, a PCB-containing liquid, whereas transformers contain 60 to 90% sovol and have less concentrated PCB liquid;

- PCB-containing capacitors have more fragile housings than transformers (e.g., they have ceramic leads that can be damaged by impact, metal housings are thinner and subject to corrosion in case of unfavorable storage or operating conditions), resulting in their safe handling and storage requiring additional precautions;

- the Belarus National Plan for implementation of the Stockholm Convention includes a mandatory indicator on decommissioning of PCB-containing condensers; and

- based on the weight of PCB containing equipment, capacitors have a higher PCB content to weight ratio than transformers and it is therefore efficient to prioritize the disposal of PCB containing capacitors.

> **Recommendation 4.** Develop an action plan that identifies: priorities; methods; and costs; for environmentally sound disposal of the remaining PCB containing equipment in Belarus in support of the State Program of “Environmental Protection and Sustainable Use of Natural Resources for 2021-2025. The action plan may be used as a framework for the preparation of a “State Program for Environmental Protection and Sustainable Use of Natural Resources for the period 2026-2030”.

While difficult to quantify, the POPs project’s investment in the disposal of hazardous POPs waste avoids future costs that can be associated with human health costs due to exposure to POPs, the cost of environmental degradation and clean-up of the environment (water, farmland, natural areas, etc.) that can result from exposure to POPS.

Within the framework of the POPs project, work has been conducted with all owners of PCB-containing equipment, including transformers. Working with transformers that contain PCBs is slower and more costly than working with PCB-containing capacitors. When working with transformers there is a need to open and remove the insulating oil which contains PCBs.

Currently Belarus does not have the technical capacity required for the removal oil and decontamination of the interior of the PCB containing transformer enclosures. As such, the entire transformer containing the PCB insulating oil must be exported for environmentally sound disposal.

The PMU was made up of a team of technical professionals with the needed capacity to efficiently manage the POPs project. The structure of the PMU followed what was outlined in the ProDoc, and included a Project Manager, Administrative/ Financial Assistant and two Field Supervision/Coordination Consultants (one for PCBs, one for OPs) and a Communication Specialist. While the PMU has effectively adapted the management of POPs project activities to achieve project targets, there has been a need for two project extensions required to ensure their completion.

Rating: Satisfactory (S)

3.3.5 Overall Outcome

The development of national strategies for environmentally responsible management of hazardous chemicals, in line with international standards, is highly relevant for the protection of the human well-being and the natural environment of Belarus.

The POPs project was also effective in reducing the potential threat posed by POPs in PCB containing equipment and stored OPs. The five remaining OP burial sites were fully characterized, and action plans are ready to begin environmentally sound disposal pending available funding.

While unforeseen delays have resulted in requests for and approval of two extensions for the POPs project, the project has remained within budget, and is on track to efficiently utilize all project funds to complete project activities.

Rating: Satisfactory (S)

Assessment of Outcomes	Rating
Relevance	Highly Satisfactory
Effectiveness	Highly Satisfactory
Efficiency	Satisfactory
Overall Project Outcome Rating	**Satisfactory**

3.3.6 Country ownership

POPs project country ownership has a strong foundation in Republic of Belarus international commitments to implement the Basel and Stockholm conventions. The POPs project also supports the National Plan for Implementation of the Obligations of the Republic of Belarus under the Stockholm Convention on Persistent Organic Pollutants (2007-2010, 2011-2015, 2016-2020),the State Program for Environmental Protection Sustainable Natural Resource Management (2016-2020), the National Strategy for Sustainable Development, and the Program of the Electric Power Development (2016-2030).

Country ownership is also demonstrated in POPs project outcomes that have supported the Ratification of Rotterdam Convention which is in progress, a Draft law on ratification of Minamata Convention which has been developed and the ratification process has officially started, and the development of eight Technical Normative Legal Acts (TNLA) that have been approved to upgrade national environmental monitoring program.

As a NIM project the government MNREP has shown strong ownership in the development of the POPs project design and leadership in the implementation of the POPs project. Fiscal constraints at a national level resulted in a 37% reduction in planned government co-financing, nonetheless government co-financing was substantial at US $20,398,863. The government, did therefore, provide co-financing that was 2.5 times the GEF grant of US $8.4M.

There was good participation of relevant Belarus government agencies in project implementation particularly the MNREP, but also the Ministry of Agriculture and Food, the Ministry of Industry, and the Ministry of Energy. The Inter-Agency Coordination Council (IACC) also demonstrated excellent country ownership of the POPs project, and the private sector was engaged, as PCB equipment owners demonstrated country ownership by exceeding their required co- financing and providing important in-kind support to project activities.

3.3.7 Gender and women's empowerment

The UNDP gender marker for the POPs project is GEN 1, indicating the project makes *a limited contribution to gender equality and gender equality is not consistently mainstreamed*, nor is it a critical part of project design. Nevertheless, there are some aspects of the POPs project that targeted gender equality and importantly targeted the potential impact of POPs on rural women. The POPs project also consistently collected gender disaggregated data.

The POPs project conducted 16 online events to raise awareness of POPs with participants from different institutions (e.g. hospitals) and government sectors to raise awareness of POPs containing waste, with the workshops highlighting the additional risks to human health for women of reproductive age. Workshops presented to the agricultural sector were very important, given the fact that the majority of agricultural workers who use pesticides are women. Also, it was noted employees who ensure the storage and control of pesticides are predominantly women. Providing awareness for women also ensures the dissemination of information among children and youth, as women take a lead role in raising children.

The POPs project also conducted:

- 11 in-person seminars on the impact of household PCBs on urban women's health;
- 8 in-person seminars on the impact of OPs on rural women's health; and
- 10 in-person seminars were held on chemical management targeting women.

> **Recommendation 6.** Based on the results of the POPs sociological survey continue to deliver training seminars to safeguard women's health and in future conduct a follow-up Knowledge, Attitude, Behavior, and Practice (KAP) survey to determine the efficacy of awareness raising seminars.

The POP's project also achieved its gender target of 40% women in supervisory and technical positions with the Project Board having 11 (69%) women and 5 (31%) men and POPs PMU having technical staff with 2 (40%) women and 3 (60%) men.

The TE considers implementation of the POPs project was gender responsive and that it exceeded targets that addressed POPs gender-related issues.

Rating: Highly Satisfactory (HS)

3.3.8 Cross-cutting Issues

The POPs project targeted rural women considered to be at greater risk of exposure to OPs and potentially disadvantaged in terms of access to knowledge regarding POPs. As noted in report Section 3.3.7 Gender, awareness raising seminars were conducted to address this cross-cutting issue. This element of the POPs project has contributed to a poverty-environment nexus and human-rights base project approach.

The POPs project conducted surveys of the remaining in-ground OP storage sites located in rural areas that have the potential to impact more impoverished communities that lack an understanding of POPs risks and which may impact rural natural environments. The POPs project surveys have provided a better understand the extent and severity of hazardous chemicals at the remaining in-ground burial sites and developed action plans for future OP removal and site decontamination. One of the action plans is currently funded by local budget funds allocated in the State programme for 2021- 2025 (Petrikov burial site).

Overall the POPs project has a positive impact on the environment through the elimination of PCBs and OPs, which are persistent hazardous chemicals with the potential for long-lasting negative environmental and human health impacts.

3.3.9 GEF Additionality

The GEF grant supported POPs project has made a direct contribution to national and global environmental benefits through the elimination of 1,186 tons of PCBs, 1,151 tons of OPs and the decontamination of 33 OP storage warehouses. The POPs project has also put in place new legislation (eight TNLA), monitoring capacity (training, equipment, electronic data management) and strategic plans for continued POPs management, monitoring and elimination programs.

The GEF supported POPs project has provided social benefits through POPS elimination and through awareness raising and training seminars both of which will reduce the risk of POPs exposure. POPs project social benefits have targeted urban and rural women known to be at greater risk of exposure.

With support from GEF the Republic of Belarus has achieved institutional/governance, social and environmental sustainability of POPs management. Financial sustainability is considered moderately unlikely, as the government does not currently have sufficient financial resources to complete the elimination of all PCBs and OPs (see report **Section 3.3.12 Project Sustainability**).

3.3.10 Catalytic/Replication Effect

The GEF supported POPs project has catalyzed significant, measurable government action on government commitments to the SC in terms of government co-financing of US $20,398,863 and key outputs from the POPs project including: TNLA; national plans and programs targeting POPs; OP burial site action plans; awareness raising targeting women; and PCB (1,186 tons) and OP (1,151 tons) elimination.

The POPs project supported TNLA, the National Plan for Implementation of the Obligations of the Republic of Belarus under the Stockholm Convention on Persistent Organic Pollutants, the State Program for Environmental Protection Sustainable Natural Resource Management (2016-2020), the National Strategy for Sustainable Development, and the Program of the Electric Power Development (2016-2030) provide sustainable frameworks for the continued management and elimination of POPs, supported by the Republic of Belarus government budgets (where finances are available) and programs seeking international financial support (grants and loans).

The TE noted the POPs project had a catalytic effect on one State programme (2021-2025) that allocated local budget funds to implement the POPs project Action Plan for the Petrikov OP burial site. In general, however, there is a lack of government financial resources needed to eliminate the remaining PCB containing equipment and implement the Action Plans for the remaining four OP burial sites.

3.3.11 Progress to Impact

The PCB and OP baselines established in the POPS SRF are 3,702 tons of PCBs (1,100 tons stockpiled, 2,602 tons in-service) and 1,900 tons of OPs (located in rural storage sites) The ProDoc also notes there is 4,357.2 tons of OP contaminated soil in five burial sites based on the 2016 inventory.

Based on the achievements of the POPs project, 32% (1,186 tons) of the PCB inventory has been eliminated and 61% (1,151 tons) of the stockpiled OP inventory has been eliminated. A significant amount of PCB containing equipment (2,516 tons), stored OPs (749 tons) and OP contaminated soil (4,357.2 tons) remains to be eliminated.

The POPs project has made a significant positive impact to government through the eight new TNLA and capacity development (training, equipment, database development) which has improved the national environmental monitoring system for hazardous chemicals.

The POPs project has surveyed all five of the OP burial sites, providing essential information to characterize the extent and severity of OP contamination, thus providing awareness of the risks posed by OP burial sites and strategies to avoidance of risks. The survey work has also informed POPs project development of Action Plans and budgets to inform the work required for elimination of OP contaminated soils.

The POPs project has also had an impact on the reduction of public exposure to the risks of POPs, with targeted awareness and training programs that have reached both urban and rural populations, particularly women.

3.3.12 Project Sustainability

Financial Sustainability

POPs project activities that completed the environmentally sound disposal of PCB containing equipment and OPs are financially sustainable, requiring no further financial inputs and in the long term represent a financial gain, given the cost of storage is no longer required.

POPs project activities that established an enhanced unified hazardous chemicals database requires limited financial investment for annual updating by government and is considered financially sustainable.

POPs project activities that characterized and developed actions plans for environmentally sound disposal of the five remaining OP burial sites requires significant investment due to the large volume of material to be treated (ProDoc estimated 4,357.2 tons of contaminated soil). The POPs project has not been able to mobilize core long-term financial resources for containment and clean up. While the Petrikov OP burial site does have local budget funds allocated in the State programme for 2021- 2025, the indications are the full amount required may not be available due to a general lack of government financial resources. Mobilization of the funding for the other four OP burial sites has not been achieved; a concept note to seek funding is currently under development. Given the large financial resources required for OP burial site clean-up, an external international source of funding will be required.

The POPS project eliminated the most serious threat of PCBs present in capacitors, there remain, however, significant quantities of PCB containing equipment (2,526 tons) that are inventoried and in need of phasing out and environmentally sound disposal. There is also an estimated 749 tons of stored OPs and 4,357.2 tons of OP contaminated soil that remains to be eliminated. Limited government financial resources will likely not address this PCB containing equipment within the timeframe outlined in the SC NIP.

> **Recommendation 7.** Develop a Concept Note that comprehensively outlines the remaining actions and finances required for environmentally sound disposal of all PCB containing equipment, stored OPs and OP contaminated soil. Based on the Concept Note seek international funding (grants and/or loans) for implementation.

The Republic of Belarus has secured international funding for POPs disposal in the past, it is conceivable therefore new funding may be secured to complete the environmentally sound disposal of the remaining POPs. However, with no government or international funding secured at the time of the TE, financial sustainability is currently moderately unlikely.

Rating: Moderately Unlikely (MU)

Socio-economic Sustainability

The POPs project provided workshops and seminars, online and in-person, to raise awareness of sound management of hazardous chemicals. The training targeted those involved in activities where there may be exposure to hazardous chemicals and the general public in both rural and urban environments, with attention given to women who may be at higher risk of exposure. The training provided is considered sustainable and is likely to be replicated through ongoing communication of those who attended training sessions, including urban and rural women.

Public awareness raising can also support advocacy for sound hazardous chemical management and socio-economic sustainability supported by government.

The POPs project had good engagement with PCB equipment owners, including the direct co-financing made by these private sector organizations. The owners of OP were engaged, received awareness raising and capacity development training and provided in-kind staff support. Support from the private sector in the POPs project will contribute to ongoing capacity to support socio-economic sustainability of sound hazardous chemical management.

Rating: Likely (L)

Institutional framework and governance Sustainability

The POPs project has established the institutional and governance structures for environmentally sound management of hazardous chemicals through the IACC and assistance provided for the ratification and/or implementation of the SC, the Rotterdam Convention, the Minamata Convention developed and the Basel Convention. The POPs project has facilitated the development of eight Technical Normative Legal Acts (TNLA) that will make it possible to determine the presence of POPs, in soils, water, waste, and electrical products, for which previously there were no methods of determination, thereby greatly improving the national environmental monitoring system.

The POPs project, embedded within the MNREP, has provided staff the opportunity to participate in hands-on PCB and OP hazardous chemical management exercises related to their identification, characterization for disposal, consolidation and repackaging, and export for environmentally sound destruction. There is therefore capacity within institutions to sustain sound hazardous chemical management, including disposal of the remaining PCB containing equipment and OP burial sites.

The POPs project support of PCB reporting, tracking and inventory in an upgraded, modernized national Unified POPs Database with public access to be provided when the Unified POPs Database is launched will provide transparency for POPs management and elimination.

Rating: Likely (L)

Environmental Sustainability

The POPS project makes a direct contribution to environmental sustainability by eliminating the threats posed by PCBs and OPs. Significant progress was made through the environmentally sound disposal of the most potent and hazardous PCBs in the form of capacitors and stored OPs and the cleaning of all OP storage warehouses.

Further contribution to environmental sustainability was made through the characterization of OP burial sites and the development of action plans for their management and long-term disposal. As a result of the POPs project OP burial sites are more secure and with actions plans developed, more likely to secure funding for their disposal.

Rating: Likely (L)

Overall Likelihood of Sustainability

In large measure the POPs project outcomes are sustainable and future sound hazardous chemical management is likely. There remain, however legacy POPs in the form of PCB containing equipment and OP burial sites, which while being carefully catalogued by the POPs project, do not have a government or international source of funding for their environmentally sound disposal. This aspect of sustainability of the POPs project will remain moderately unlikely until such funding is secured, reducing the overall sustainability rating for the project.

Rating: Moderately Likely (ML)

Sustainability	Rating
Financial resources	2 = Moderately Unlikely (MU)
Socio-political	4 = Likely (L)
Institutional framework and governance	4 = Likely (L)
Environmental	4 = Likely (L)
Overall Likelihood of Sustainability	**3 = Moderately Likely (ML)**

4 Main Findings, Conclusions, Recommendations, Lessons Learned

4.1 Main Findings

At the national level the POPs project has assisted in development of capacity, legal instruments, regular data acquisition and reporting, and effective strategies for environmentally responsible management of hazardous chemicals, in line with international standards. Through work completed at the national level the POPs project has made an important, sustainable contribution to the protection of human well-being and the natural environment of Belarus.

The POPs project was also effective in reducing the immediate threat posed by POPs in PCB containing equipment which posed the greatest risk (i.e., capacitors) and the removal and environmental sound destruction of stored OPs, and the cleaning of warehouses storing OPs. The POPs project has characterized the five remaining OP burial sites in Belarus and developed comprehensive action plans that require future funding for implementation to complete environmentally sound cleanup and disposal of burial sites.

Unforeseen circumstances led to delays in implementation of POPs project activities, including, Covid-19 and an emerging regional geopolitical crisis. These delays resulted two requests for project extensions that were approved. Financially, the project remained within budget, efficiently utilizing all project funds to complete project activities.

4.2 Recommendations

The timing for recommendations has two categories; 0-6 months which are intended to be completed as part of project closure, and 6-24 months which are intended as recommendations to be implemented on an ongoing basis after project closure.

Recommendations	Lead Agency	Timing
Recommendation 1 Future development of Strategic Results Framework indicators to be “specific” by identifying a single end-of-project target.	• UNDP CO • MNREP	• 6-24 months
Recommendation 2 Encourage the ongoing participation of NGOs in POPs management activities by further enhancing their capacity (knowledge, financial support) to disseminate POPs education materials.	• MNREP	• 6-24 months
Recommendation 3. All OPs remaining in storage warehouses in the Minsk region should be removed and transported for environmentally sound disposal as quickly as possible and warehouses cleaned. PCB containing equipment should be transported for environmentally sound disposal as soon as possible. And the POPs project should complete the transition of POPs owners to the new Unified POPs Database, ensuring legislative confirmation of the transition.	• PMU • MNREP	• 0-6 months

Recommendations	Lead Agency	Timing
Recommendation 4 Develop an action plan that identifies: priorities; methods; and costs; for environmentally sound disposal of the remaining PCB containing equipment in Belarus in support of the State Program of "Environmental Protection and Sustainable Use of Natural Resources for 2021-2025. The action plan may be used as a framework for the preparation of a State Program for *Environmental Protection and Sustainable Use of Natural Resources* for the period 2026-2030	• PMU • MNREP	• 0-6 months
Recommendation 5 Develop capacity (technical staff and equipment) in Belarus for more efficient, environmentally sound disposal, cleaning and recycling of PCB containing transformers, including the decommissioning of transformers currently in use. (Recommendation 5 may be undertaken as part of the development of a Concept Note in Recommendation 7)	• MNREP	• 6-24 months
Recommendation 6 Based on the results of the POPs sociological survey continue to deliver training seminars to safeguard women's health and in future conduct a follow-up Knowledge, Attitude, Behavior, and Practice (KAP) survey to determine the efficacy of POPs awareness raising seminars	• PMU • MNREP	• 0-6 months
Recommendation 7 Develop a Concept Note that comprehensively outlines the remaining actions and finances required for environmentally sound disposal of all PCB containing equipment, stored OPs and OP contaminated soil. Based on the Concept Note seek international funding (grants and/or loans) for implementation.	• PMU • MNREP • UNDP CO	• 0-6 months

4.3 Conclusions

The POPs project has made a substantial contribution to the protection of human health and the environment through elimination of POPs legacy chemicals, including elimination of 32% of the remaining PCB containing equipment and 61% of the remaining stored OP.

Despite the POPs project having met elimination targets, there remain, substantial quantities of legacy chemicals in the form of in-use PCB containing equipment (2,516 tons), stored OPs (749 tons) and OP contaminated soil (4,357.2 tons). Training, equipment, and experience provided by the POPs project provides relevant government and private sector stakeholders with the capacity needed to undertake the work required. In addition, the POPs project characterized and developed Action Plans, with budgets, to address the specific needs of the five OP burial sites.

The POPs project has also supported government in the development of TNLA and strategies that support monitoring and reporting on POPs and plans for their management and elimination.

The POPs project has demonstrated willingness and capacity of government and the private sector to meet commitments off the SC. There remains a need to secure the financial resources needed to implement the activities required to achieve the elimination POPs legacy chemicals.

Given the ongoing presence of POPs legacy chemicals in the Republic of Belarus, the POPs project work on awareness raising and training, particularly for urban and rural women at risk, stands as an important contribution of the POPs project to reducing risks to human health. The TE has recommended that awareness raising and training continue to be an integral part of the work of managing POPs legacy chemicals given the fact the elimination of the remaining POPs legacy chemicals will not be completed for five to ten years.

4.4 Lessons Learned

1. The implementation and achievement of some POPs project activities were dependent on the successful completion of a second independently management project (see **Annex 12** Indicator # 5). For this type of situation there is a need for the POPs project to assess the likelihood of failure of the second independent project and the implications of this failure to the achievement the POPs project's objective and outcomes.

2. Even under challenging regional geopolitical circumstances and international sanctions UNDP has the capacity to support government, non-government and private sector organizations dedicated to undertaking important environmental protection work. Individuals working in these organizations benefit through participation in UNDP projects, utilizing and developing their skills to make important contributions to human well-being and environmental projection.

3. POPs project stakeholders and beneficiaries noted the private sector project partner (Geokoma) was extremely helpful during the implementation of project activities, providing their knowledge and skills in repackaging, transportation and disposal of POPs. Stakeholders appreciated that the private sector specialists made themselves available at

any time to provide consultation and assist in completing project activities.

4. The TE acknowledges UNDP is well positioned to implement infrastructural projects based on the presence of a country office that has established relationships with government and non-government institutions and an efficient and transparent project management system, in place. When a project faces challenges UNDP staff in-country can be contacted and provide assistance, including access to international technical advice and procurement through UNDP's regional and global offices. Other agencies that are not present in-country, such as UNIDO, can face difficulties in the implementation of large projects which encounter challenges, and this may result in less effective and unexpected results.

5. POPs projects must accept the amount and type of pesticides recorded in the documents may vary significantly from what is actually present when detailed, on the ground field studies are undertaken. The POPs project determined that the actual amount of POPs was up to three times greater than the declared amount and in most cases, the composition of pesticides was unknown. This situation was characterized as common for post-Soviet countries.

6. When developing a project where a significant part of the budget is to be utilized for transport services and/or equipment procurement, the budget should consider the fact that actual procurement during project implementation will likely not occur for several years. Project budgets should therefore be sufficient to include the predicted future costs based on the average annual inflation rates.

7. Implementation as a NIM project meant the POPs project had the following benefits and weaknesses:

    - MNREP as the executing agency was able to adapt to rapidly changing situations and resolve controversial issues through effective communication between ministries and departments.

    - The PMU reported to MNREP and UNDP, resulting in additional work due to the requirement for the POPs project to meet the financial and reporting standards required for each agency;

    - As a NIM project the PMU was required to meet substantial requirements in regard to Ministry approval of decision-making procedures, including applications, official letters, obtaining signatures of responsible persons;

    - As a NIM project, in-kind contributions of government provided important co-financing support for administrative costs (office, transportation costs, office supplies, etc.). However, working conditions for the PMU were not considered ideally suited for the large responsibility and stressful circumstances associated project implementation

    - As a NIM project there was no access to the procurement of goods and services in international markets that require payment in international currencies. Given the need for international transport and disposal of POPs there was a need for UNDP to secure and make payment for these services

- As a NIM project for some of the budget tranches transferred from UNDP to MNREP for project implementation there was a need for the tranche to be registered in the Ministry of Economy as international technical assistance, prior to the funds being released to MNREP and used to support project activities. As the registration process can take several months, the registration process caused delays in the implementation of some project activities.

Annex 1: Terms of Reference for Terminal Evaluation

Terminal Evaluation Terms of Reference

International Consultant – Team Leader

1. INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the full-sized project titled *"GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project" (PIMS #5532)* implemented through the Ministry of Natural Resources and Environmental Protection of Belarus (Ministry of Environment). The project was officially signed on 05 October 2018, officially registered in line with national procedures on 18.12.2018, and is in its fifth year of implementation. The TE process must follow the guidance outlined in the document 'Guidance For Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects' http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf

2. PROJECT BACKGROUND AND CONTEXT

The objective of the project is protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in Belarus. This objective is achieved through 3 components: 1) Sustainable PCB management; 2) Elimination of obsolete pesticide legacies; 3) Capacity strengthening and planning for sound chemicals management. The project involves environmentally sound elimination of PCB equipment, as generated in accordance with the nationally mandated PCB equipment stockpiles, repackaging, transport and environmentally sound elimination of rural stored OP obsolete pesticide stores stockpiles in the country. Additionally, the project provides support and capacity strengthening for various aspects of POPs and hazardous waste management infrastructure, environmental monitoring, sound chemical management, gender mainstreaming, enhanced public awareness in the area.

The total budget of the Project is 8,400,000 USD.

3. TE PURPOSE

The TE report will assess the achievement of project results against what was expected to be achieved, and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency, and assesses the extent of project accomplishments.

The **purpose** of the evaluation is to provide an independent external view of the progress of the project at its completion, and to provide feedback and recommendations to UNDP and project stakeholders.

The **objectives** of the Terminal Evaluation are to:

- Identify potential project design issues;
- Assess progress toward achievement of expected project objective and outcomes;
- Identify and document lessons that can both improve the sustainability of benefits from this project and aid in overall enhancement of UNDP and GEF programming in the region;
- Make recommendations necessary to help consolidate and support sustainability of the project results.

The Terminal Evaluation should also provide recommendations for follow-up activities, which require a management response prepared by the project team, which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

COVID-19 and social-economic crises impacted the projects' outputs, causing delays in activities and the need to refocus some of them.

4. TE APPROACH & METHODOLOGY

The TE must provide evidence-based information that is credible, reliable and useful.

The consultant will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Environmental & Social

Safeguard Policy, the Project Document, project reports including Annual Project Review/PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based review). The IC will review the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement.

The IC is expected to follow a collaborative and participatory approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office, UNDP-GEF Regional Technical Advisers, and other key stakeholders.

This TE is initiated by UNDP CO in Belarus as the Implementing Agency of the Project. For the effectiveness of common TE and in accordance with the project document requirements, the UNDP CO in Belarus is hiring a National Consultant for Terminal Evaluation. He/she will assist the team leader of TE in the performance of TE in the country.

Engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to; senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc. Additionally, the national consultant is expected to conduct three field missions to Slutsk, Novogrudok and Chechersk project sites.

The specific design and methodology for the TE should emerge from consultations between the TE team and the above-mentioned parties regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The TE team must, however, use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the TE report.

The final methodological approach including interview schedule, field visits and data to be used in the evaluation must be clearly outlined in the TE Inception Report and be fully discussed and agreed between UNDP, stakeholders and the TE team.

The final report must describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

5. DETAILED SCOPE OF THE TE

The TE will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see ToR Annex A). The TE will assess results according to

the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf. The Findings section of the TE report will cover the topics listed below.

A full outline of the TE report's content is provided in ToR Annex C.

The asterisk "(*)" indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country drivenness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Safeguards
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g. same focal area) incorporated into project design
- Planned stakeholder participation
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Actual stakeholder participation and partnership arrangements
- Project Finance and Co-finance
- Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)
- Implementing Agency (UNDP) (*) and Executing Agency (*), overall

project oversight/implementation and execution (*)

- Risk Management, including Social and Environmental Standards

iii. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements
- Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
- Sustainability: financial (*), socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)
- Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)
- GEF Additionality
- Catalytic Role / Replication Effect
- Progress to impact

Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE team leader will prepare a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the

identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.

- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation. It is advised to keep the number of recommendations up to six.

- The TE report should also include lessons that can be taken from the evaluation, including best and worst practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation. Lessons learned section may be combined with conclusions.

- It is important for the conclusions, recommendations and lessons learned of the TE report to include results related to gender equality and empowerment of women. The TE report will include an Evaluation Ratings Table, as shown below.

Evaluation Ratings Table for the project "Capacity building for Emission Trading and Strengthened of Measurement, Reporting and Verification in the Republic of Belarus" (PIMS #6161)

Monitoring & Evaluation (M&E)	Rating1
M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	
Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	
Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
Assessment of Outcomes	Rating
Relevance	
Effectiveness	
Efficiency	
Overall Project Outcome Rating	
Sustainability	Rating
Financial resources	
Socio-political/economic	
Institutional framework and governance	
Environmental	
Overall Likelihood of Sustainability	

6. TIMEFRAME

The total duration of the TE will be 26 days over a time period of 12 weeks as soon as assignment starts. The tentative TE timeframe is as follows:

Timeframe	Activity
By 20 October 2023	Application and selection of TE team
23 October 2023	Team leader contract start date
30 October 2023	Preparation period for TE team (handover of documentation)
(4 days) 03 November 2023	Document review and preparation of TE Inception Report
(1 day) By 10 November 2023	Finalization and Validation of TE Inception Report; latest start of TE mission

[1] Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

(10 working days) By 24 November	Stakeholder meetings, interviews, etc. (virtually, as the project pilot areas included only sites for performing calculations)
30 November	Mission wrap-up meeting & presentation of initial findings
(10 working days) By 14 December 2023	Preparation of draft TE report
By 20 December 2023	Circulation of draft TE report for comments and their incorporation
04 January 2024	Preparation and Issuance of Management Response and TE completion

7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report (Deliverable 1)	Team leader clarifies objectives, methodology and timing of the TE. Evaluation team prepares initial findings	No later than 2 weeks before the interviews with stakeholders: 03 November 2023	Team leader submits Inception Report to UNDP Belarus CO and project management
2	Draft TE Report (Deliverable 2)	Full report (using guidelines on content outlined in ToR Annex C) with annexes	Within 2 weeks at the end of interviews: 14 December 2023	Team Leader submits draft TE report to UNDP Belarus CO; reviewed by RTA, Project Coordinating Unit, GEF OFP
3	Final TE Report* + Audit Trail (Deliverable 3)	Revised final report and TE Audit trail in which the TE details how all received comments have (andhave not) been addressed in the final TE report (*see template in ToR* Annex H)	Within 1 week of receiving comments on draft report: 20 December 2023	Team Leader submits both documents to the UNDP Belarus Country Office. Documents must be cleared by the Program officer and M&E Officer.

*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines[2].

8. TE ARRANGEMENTS

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is UNDP Country Office in Belarus. The Commissioning Unit will hire a team for conducting TE. The team will consist of Team Leader

[2] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

(internationally hired) and National Evaluator (locally hired). The Commissioning Unit will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the TE team. The Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

9. TE TEAM COMPOSITION

A team of two independent evaluators will conduct the TE - one team leader (with experience and exposure to projects and evaluations in other regions globally, International Evaluator) and one team expert from Belarus (National Evaluator). The terminal evaluation is planned remotely with three missions to pilot project areas only by the national evaluator. The International Evaluator is designated as the team leader and will be responsible for preparation of the entire TE review and respective TE deliverables mentioned above in line with this ToR, with inputs from the project. The National Evaluator will provide assistance to the International Evaluator in line with a separate ToR focusing on collection of the baseline data, organizing and participation in the interviews, survey, review of data etc., providing relevant information about Belarus (economic, social, environmental, legal, etc.), data collection and summarizing of the main points from the project's reports, interviews and monitoring data of the implemented pilots, originally existing in Russian. The evaluator(s) cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project documents), must not have conducted this project's Mid-Term Review and should not have a conflict of interest with the project's related activities. The selection of consultants will be aimed at maximizing the overall "team" qualities.

Team Leader (International Consultant)

Education

- Master's degree in natural resource and environmental management, social science, development studies, economics, or other closely related field *(10 points)*;

Experience

- Relevant experience with results-based management evaluation methodologies *(10 points)*;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios *(10 points)*;
- Competence in adaptive management, as applied to Chemicals and Waste focal area (10 points)
- Experience in evaluating projects, confirmed by at least 3 examples of evaluated projects *(10 points)*;
- Minimum 10 years of proven professional experience in the area of Chemicals and Waste management (10 points)

- Experience working in the Eastern Europe countries or CIS region in the past 10 years *(5 points)*;
- Experience in relevant technical areas for at least 10 years *(10 points);*
- Demonstrated understanding of issues related to gender and waste and chemicals management, confirmed by CV and evaluation reports *(5 points)*;
- Excellent communication and analytical skills, confirmed by CV and evaluation reports *(5 points)*;
- Project evaluation/review experience within United Nations system will be considered an asset *(5 points*);
- Experience with implementing evaluations remotely will be considered an asset *(5 points)*.

Language

- Fluency in written and spoken English, with excellent writing skills in English *(5 points)*.

10. EVALUATOR ETHICS

The TE team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluator must safeguard the rights and confidentiality of information providers, interviewees and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluator must also ensure security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

11. PAYMENT SCHEDULE

- 20% payment upon satisfactory delivery of the final TE Inception Report (Deliverable 1) and approval by the Commissioning Unit
- 20% payment upon satisfactory delivery of the draft TE report (Deliverable 2) to the Commissioning Unit
- 60% payment upon satisfactory delivery of the final TE report (Deliverable 3) and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

Criteria for issuing the final payment of 60%:

- The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance.
- The final TE report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other TE reports).
- The Audit Trail includes responses to and justification for each comment listed.

Each of the installments shall be paid within 30 days after approval of corresponding deliverables according to the payment schedule.

12. APPLICATION PROCESS[3]

Recommended Presentation of Proposal:

a) **Letter of Confirmation of Interest and Availability** using the template[4] provided by UNDP;

b) **CV** and a **Personal History Form** (P11 form[5]);

c) Brief description **of approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)

d) **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

The vetted corporate roster will be used to select the Team Leader. All the documentation provided by the individual contractors through the roster platform will be screened against

[3] Engagement of evaluators should be done in line with guidelines for hiring consultants in the POPP https://popp.undp.org/SitePages/POPPRoot.aspx

[4] https://intranet.undp.org/unit/bom/pso/Support%20documents%20on%20IC%20Guidelines/Template%20for%20Confirmation%20of%20Interest%20and%20Submission%20of%20Financial%20Proposal.docx

[5] http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc

required qualifications.

Criteria for Evaluation of Proposal: Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

13. TOR ANNEXES

- ToR Annex A: Project Logical/Results Framework
- ToR Annex B: Project Information Package to be reviewed by TE team
- ToR Annex C: Content of the TE report
- ToR Annex D: Evaluation Criteria Matrix template
- ToR Annex E: UNEG Code of Conduct for Evaluators
- ToR Annex F: TE Rating Scales
- ToR Annex G: TE Report Clearance Form
- ToR Annex H: TE Audit Trail

Annex 2. Evaluation Matrix

The table below provides questions that provide direction when hosting stakeholder Key Informant Interviews (KII) and Group Discussions (GD). Stakeholder consultations will follow ethical guidelines to ensure safe, non-discriminatory, respectful engagement of stakeholders following UNEG 'Ethical Guidelines for Evaluations.

Evaluation Category and Questions	Indicators	Data Sources	Methodology
RELEVANCE:			
1. To what extent was the project in line with national development priorities	• contribution of project outcomes to national priorities	• Belarus National Strategy of Sustainable Development – 2035 • Socioeconomic Development Program for the Republic of Belarus 2016-2020 • State Programme 2021-2025 • program of the Electric Power Development 2016-2020 • National Plan of Implementation of the Obligations of the Republic of Belarus under the Stockholm Convention on Persistent Organic Pollutants • Environmental Protection and Sustainable Natural Resource Management 2016-2020	• document review
2. Does the project's objective align with the priorities of the sub-national governments?	• contribution of project outcomes to sub-national priorities	• sub-national development and environmental protection plans	• document review
3. To what extent was the method of delivery appropriate to the development context?	• effectiveness of project output achievement	• PMU staff • Government and private Sector stakeholders • PIRs	• KII • document review

Evaluation Category and Questions	Indicators	Data Sources	Methodology
4. To what extent does the project contribute to Outcomes of the UNDP UNDAF and CPD?	• contribution of project outcomes to UNDP country and regional priorities	• UNDP staff • UNDAF 2016-2020 • UNSDCF 2021-2025 • CPD 2016-2020 and CPD 2021-2025	• KII • document review
5. To what extent has the project been appropriately responsive to political, legal, economic, institutional, etc., changes in the country?	• adaptation of project management and activities during implementation	• UNDP staff • PMU staff • PIR reports	• KII • document review
6. How does the project relate to the main objectives of the GEF Focal area	• alignment of project outcomes with GEF 6 Focal Area and Strategic Objective	• GEF-6 Programming Directions • GEF-6 Chemicals and Waste Focal Area Strategy	• document review
COHERENCE			
7. To what extent does the design of this project enable optimal use of resources and cooperation with other development initiatives	• evidence of cooperation and coordination of Belarus POPs project activities with agencies engaged in POPs management	• Belarus POPs ProDoc • Other development projects being implemented in Belarus • UNDP staff • Government stakeholders	• document review • KII
8. To what extent did the Belarus POPs project have synergy with other related projects and/or agencies resulting in collaboration, efficiency, increased value for money, and/or scale-up/expansion of project activities?	• evidence of cooperation and coordination of Belarus POPs project activities with other similar POPs management initiatives • value-added outputs occurring as a result of collaboration	• Belarus POPs ProDoc • Other development projects being implemented in Belarus • UNDP staff • Government stakeholders • PMU staff	• document review • KII
EFFECTIVENESS			
9. To what extent has progress been made toward outcome achievement? Are the expected outcomes likely to be met?	• achievement of outcome indicators	• UNDP staff • Government stakeholders • PMU staff • PIR	• document review • KII

Evaluation Category and Questions	Indicators	Data Sources	Methodology
10. To what extent have the MTR recommendations been implemented	• Implementation of MTR recommendations	• UNDP staff • Government stakeholders • PMU staff • MTR report • PIR	• document review • KII
11. Considering that the project was implemented during COVID-19 restrictions, to what extent was the project able to adapt to the changing priorities?	• adaptive management strategies	• UNDP staff • Government stakeholders • PMU staff • PIR	• document review • KII
12. To what extent has the project been able to establish close cooperation and partnership with different stakeholders and target groups at the national and state levels?	• evidence of strong support to Belarus POPs project by government partners • effective achievement of output indicators by national and state partners and private sector partners	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
13. How do the beneficiaries and stakeholders value the results/outputs of the project?	• qualitative assessment	• Government stakeholders • Private sector stakeholders • PMU staff	• KII
14. What are the key factors contributing to project success or underachievement	• project management arrangements • project implementation strategy	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • ProDoc	• document review • KII
15. In which areas does the project have the greatest achievements? Why and what have been the supporting factors?	• strategic results framework Indicators	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII

Evaluation Category and Questions	Indicators	Data Sources	Methodology
16. In which areas does the project have the fewest achievements? What have been the constraining factors and why?	• strategic results framework Indicators	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
17. Which project outputs/activities are the most relevant and strategic for UNDP and/or the Republic of Belarus to scale-up or consider going forward?	• Belarus POPs project activities identified by government and non-government stakeholders	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff	• KII
EFFICIENCY			
18. To what extent did the Belarus POPs Project engage or coordinate with implementing partners, other UN agencies, and national counterparts to achieve project outcome-level results?	• evidence of stakeholder engagement	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
19. To what extent was the project management structure efficient in generating the expected results?	• strategic results framework Indicators • project management arrangements • project implementation strategy	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • ProDoc • PIR	• document review • KII
20. Is the project cost-effective?	• Quality and adequacy of financial management procedures • Financial delivery rate vs. expected rate • Management costs as a percentage of total costs	• project financial data • UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff	• document review • KII

Evaluation Category and Questions	Indicators	Data Sources	Methodology
21. How have delays in project implementation affected cost-effectiveness?	• Project milestone achievements • Planned results affected by delays • Required project adaptive management measures related to delays	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • ProDoc • AWP • PIR	• document review • KII
22. To what extent do the Monitoring and Evaluation (M&E) systems utilized by UNDP and the PMU ensure effective and efficient project management?	• adaptive management strategies based on M&E	• UNDP staff • PMU staff • M&E Stategy • PIR	• document review • KII
SUSTAINABILITY			
23. To what extent is the existing government and private sector capacity able to sustain the project outcomes?	• Project implementation strategy • Project exit strategy / sustainability strategy • Capacity of government and non-government stakeholders	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • Project exit strategy / sustainability strategy	• document review • KII
24. To what extent are financial and economic resources available to sustain, replicate and scale-up as necessary the benefits achieved by the project?	• future government and non-government stakeholder commitments in annual work plans and budgets	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • government and non-government work plans and budgets	• document review • KII
25. To what extent are policy and regulatory frameworks in place that will support the continuation of benefits?	• government and non-government policies and regulatory frameworks support ongoing POPs management	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • government and non-government policies and regulatory frameworks.	• document review • KII

Evaluation Category and Questions	Indicators	Data Sources	Methodology
26. To what extent are the project results dependent on socio-political factors? What are the potential social or political risks?	• government and non-government stakeholder support of project outputs	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff	• KII
27. To what extent do stakeholders support the project's long-term objectives?	• government and non-government stakeholder commitment to project outputs	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff	• KII
28. To what extent are lessons documented by the project team on a continual basis shared with appropriate parties who could learn from the project?	• adaptive management strategies • documented lessons learned	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
29. Is there evidence of replication and/or scaling-up of project activities?	• replication or scaling-up of project activities	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
30. Has the environmental impact and sustainability of project activities been considered?	• environmental risk assessment • environmental risk mitigation strategies	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
CROSS-CUTTING ISSUES – HUMAN RIGHTS			
31. Have project activities considered the human rights of poor, indigenous, and physically challenged, women, men, and other disadvantaged and marginalized groups?	• human rights considerations in ProDoc • project data disaggregation	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
CROSS-CUTTING ISSUES – GENDER EQUALITY			

Evaluation Category and Questions	Indicators	Data Sources	Methodology
32. To what extent have gender equality and the empowerment of women been addressed in the design, implementation, and monitoring of the project?	• GESI considerations in ProDoc • implementation of project activities informed by gender responsive implementation • sex-disaggregated data collected	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
33. To what extent has the Belarus POPs project promoted positive changes regarding gender equality and the empowerment of women? Were there any unintended negative effects for women, men, youth, or vulnerable groups as a result of the project?	• capacity of implementing partners to address gender issues • level participation of women in project activities • reports of unintended negative impacts	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII
34. To what extent do mechanisms, procedures, and policies exist that will allow and encourage government stakeholders to carry forward the results attained in regard to gender equality, social inclusion, the empowerment of women, human rights, and human development?	• capacity of stakeholders to address gender issues • inclusion of gender issues in policies developed	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR • government policies and procedures	• document review • KII
35. Was sex-disaggregated data collected and analyzed?	• gender disaggregated project information and M&E data	• PIR • other project reporting documents	• document review
IMPACT			
36. Are there indications that the project has contributed to, or enabled progress toward reduced environmental stress and/or improved ecological status?	• reduction of current or likely future impact of POP	• UNDP staff • Government stakeholders • Private sector stakeholders • PMU staff • PIR	• document review • KII

Annex 3. List of Documents Reviewed

- Gender Action Plan 2023-05.23
- ПЕРЕЧЕНЬ СЕМИНАРОВ-20.12.2023.xlsx / list of seminars at the 20.12.2023
- Социологический опрос презентация БелНИЦ (1).docx / Report of the sociologic survey implemented by the Scientific research center Ecology
- 2021 Городокское_захоронение_непригодных_пестицидов (итоговый от.doc / Report of the examination of Gorodok obsolete pesticides burial
- 2021 Петриковское_захоронение этап 2 окончат ред.doc / Report of the examination of Petrikov obsolete pesticides burial, stage 2
- 2021_Поставское_захоронение_непригодных_пестицидов (итоговый отчет)-1.pdf / / Report of the examination of Postavy obsolete pesticides burial
- Отчет этап 1 Дрибинское захоронение.docx / Report of the examination of Dribin obsolete pesticides burial
- Отчет этап 2 Дрибинское захоронение ЗАКЛЮЧИТЕЛЬНЫЙ.doc (с приложениями А-Е) / Report of the examination of Dribin obsolete pesticides burial, final version with annexes
- Отчет_ Этап 2_Верхнедвинское 2022_итог правка.docx / Report of the examination of Verchnedvinskoye obsolete pesticides burial, final version
- Отчет_этап_1_Верхнедвинское_(БГУ).docx / Report of the examination of Verchnedvinskoye obsolete pesticides burial, stage 1
- ГОСУДАРСТВЕННАЯ ПРОГРАММА «Охрана окружающей среды и устойчивое использование природных ресурсов» на 2021–2025 годы (источник - https://www.minpriroda.gov.by/uploads/files/Gosudarstvennaja-programma-2021-2025.pdf) / State program “Environmental protection and sustainable use of natural resources” for 2021–2025
- GEF-6 Project Identification Form (PIF) December 30th, 2014
- Project Document for GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management October 5th, 2018
- Memorandum on the amendments to the international GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management for project extension to April 5th, 2024 dated September 27th 2022
- Project Board Minutes January 2020 to April 2024
- Annual Project Implementation Reports 2020, 2021, 2022, 2023
- Annual Work Plans 2020, 2021, 2022, 2023
- Independent Auditor’s Report on a Special Purpose Audit Engagement on Statement of Expenses - the Combined Delivery Report (UNDP CDR), Statement of Assets and Equipment and Statement of Cash Position March 2023
- Office of Financial Management Summary of Significant Issues and Action Plan (May 2023)
- The National Plan of the Republic of Belarus for the Implementation of its Obligations under the Stockholm Convention on Persistent Organic Pollutants for the period of 2007–2010 and until 2028
- National Plan of Implementation of the Obligations of the Republic of Belarus under the Stockholm Convention on Persistent Organic Pollutants in 2011-2015
- Online Inception Workshop Minutes (19 November, 2020)

- Letter of Agreement between the UNDP and the MNREP of the Republic of Belarus to carry out activities within the project “GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management”
- LPAC Meeting Minutes – November 23rd, 2017
- Monitoring and Evaluation Framework
- Output Verification - Gomel Monitoring Visit March 23-24, 2023
- Belarus POPs Legacy and Sustainable Chemicals Management Mid-Term Review Report (December 2021)
- UNDP MTR Management Response January 31st, 2022

Annex 4. Field Mission Schedule

#	Date/ Time	Organization / position	Name	Phone	email	interview method
5th December						
1	10:00	POPs Project manager	Kovalenko Denis	375-29-956-9039	denkov30@yahoo.com	In-person meeting
2	12:00	Belarus POPs Project National Expert on PCBs	Volkova Olga	375-29-339-2496	volkova_olya@mail.ru	In-person meeting
3	14:00	Belarus POPs Project National Expert on OPs	Kulik Yuri	375-33-600-0385	sendpost@tut.by	In-person meeting
4	16:00	Geocoma company	Belavus Marina	375-29-649-7137	maryna.belavus@gmail.com	zoom
6th December						
5	10:00	Housing and communal services in Polotsk, environmental engineer	Melnik Dmitry,	375-29-512-3188	jkh@vitebsk.by	phone
6	11:30	JSC "Zabashevichi"	Dolgopolik Dmitry Ivanovich	375-29-310-9085	profdm@tut.by	phone
7	12:00	Belarus POPs Project Financial and Administration Assistant	Ushkova Larisa	375-29-65-77359	afa.pops.gef6@gmail.com	zoom
8	14:00	UNIDO representative in Belarus	Pinigin Andrey Viktorovich	375-29-632-4505	A.pinihin@unido.org	zoom
7th December						
9	10:00	Institute of Nature Management of the National Academy of Sciences of Belarus	Kuharchik Tamara Iosifovna	375-29-619-5883		phone
10	14:00	NGO Environmental Initiative	Baeva Alexandra	375-29-745-5622	alexandra.baeva1@gmail.com	zoom
11	17:00	Ministry of Energy	Maltseva Natalia Mikhailovna	375-17-2182162		phone
8th December						
12	9:30	RUE "Central research institute for complex use of water resources" (ЦНИИКИВР)	Muzykin Viktor Pavlovich	375-29-753-7631	2634843@mail.ru	phone

#	Date/ Time	Organization / position	Name	Phone	email	interview method
13	11:00	BelNIITs Ecology, Director	Mikhalevich Ruslan Vasilyevich	Minsk, Yakubova str. 76		In-person meeting
14	14:00	Gomel Casting and Normal Plant	Semchenko Tatyana Ilyinichna	375-44-728-3409		phone
15	16:00	UNDP Belarus Programme Analyst	Chabrouskaya Volha		Volha.chabrouskaya@undp.org	zoom
11th December						
16	10:00	Head of the Laboratory of Ecology and Landscapes of BSU	Kuzmin Saveliy Ignatievich	375-29-363-0635		phone
17	12:30	Head of Laboratory Control Department of the Department veterinary and food supervision of the Ministry of Agriculture and Food	Lizun Ruslana Pavlovna	375-29-617-6076		phone
18	13:30	RUE Minskenergo	Letskevich Elena Nikolaevna	375-29-654-3954		phone
19	14:30	Head of the hygiene department of the state institution “Republican Hygiene Center” epidemiology and public health"	Shukevich Viya Anatolevna	375-17-215-0815		phone
20	16:00	UNDP Belarus RBM and M&E Analyst	Kulik Katerina		katerina.kulik@undp.org	zoom
12th December						
21	10:00	Head of the Waste Management Control Department of the Grodno Regional Environmental Protection Committee (for the Grodnooblselkhoztechnika = Grodno Regional Agricultural Equipment)	Putro Valentina Ivanovna	375-29-589-1461		phone
22	15:00	UNDP Istanbul Regional Hub team	De Bruyne Charlotte (Regional Technical Advisor) Oymen Yeliz (Programme Associate)		charlotte.de.bruyne@undp.org yeliz.oymen@undp.org	

#	Date/ Time	Organization / position	Name	Phone	email	interview method
23	15:00	Chief of the head department for regulation of waste management, biological and landscape diversity	Sazonova Olga Vladimirovna	375-17-200-4776		phone
14th December - Slutsk travel						
24	09:00-14:00	Head of the Slutsk inspectorate of the Environmental Protection Agency	Tsybulko Sergei Aleksandrovich	375-29-870-7089	slprioos@mail.belpak.by	field visit, In-person meeting
25		The Geocoma company, specialist	Porubin Diana	375-29-984-1552	pdianamd@yahoo.com	field visit, In-person meeting
18-19th December - Gomel and Chechersk travel						
26	10:00:00-16:00	Gomel Regional Analytical Control Laboratory, Head of the laboratory	Severin Anastasia Nikolaevna	Gomel, Zharkovskogo 24		field visit, In-person meeting
27		Municipal unitary enterprise Complex for the processing and disposal of toxic industrial waste in the Gomel region, Director	Borovoy Sergey Nikolaevich,	1.5 km west of the village Dubrovka, Chechersky district		field visit, In-person meeting
20th December						
28	10:00-11:00	National project coordinator, First Deputy Minister of the MNREP	Korbut Alexander Nikolaevich,		the contact through the project manager	In-person meeting
21th December - Novogrudok travel						
29	10:00:00-16:00	OJSC "Management Company of the Holding "GrodnoOblselkhoztekhnika"	Tkachev Yakov Viktorivich	375-29- 787-3951	oblsxthim@mail.ru	field visit In-person meeting

Annex 5. Pledge of Ethical Conduct in Evaluation

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

Evaluation Consultant Agreement Form

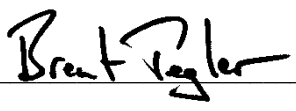
Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: **Brent Tegler**

Name of Consultancy Organization (where relevant):

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____**Fergus, Canada**_____ *(Place) on* _____**31st October, 2023**_____ *(Date)*

Signature: _____  _____

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
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4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated.

Terminal Evaluation Consultant Agreement Form

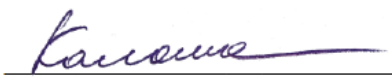
Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: **Viktoryia Kalosha**

Name of Consultancy Organization (where relevant):

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at ___*Minsk, Belarus*___ *(Place) on* _____**13th November, 2023**_____ *(Date)*

Signature: 

Annex 6. Terminal Evaluation Rating Scales

Monitoring & Evaluation Ratings Scale	
Rating	**Description**
6 = Highly Satisfactory (HS	There were no short comings; quality of M&E design/implementation exceeded expectations
5 = Satisfactory (S)	There were minor shortcomings; quality of M&E design/implementation met expectations
4 = Moderately Satisfactory (MS)	There were moderate shortcomings; quality of M&E design/implementation more or less met expectations
3 = Moderately Unsatisfactory (MU)	There were significant shortcomings; quality of M&E design/implementation was somewhat lower than expected
2 = Unsatisfactory (U)	There were major shortcomings; quality of M&E design/implementation was substantially lower than expected
1 = Highly Unsatisfactory (HU)	There were severe shortcomings in M&E design/implementation
Unable to Assess (UA)	The available information does not allow an assessment of the quality of M&E design/implementation.

Implementation/Oversight and Execution Ratings Scale	
Rating	**Description**
6 = Highly Satisfactory (HS)	There were no shortcomings; quality of implementation/execution exceeded expectations
5 = Satisfactory (S)	There were no or minor shortcomings; quality of implementation/execution met expectations.
4 = Moderately Satisfactory (MS)	There were some shortcomings; quality of implementation/execution more or less met expectations.
3 = Moderately Unsatisfactory (MU)	There were significant shortcomings; quality of implementation/execution was somewhat lower than expected
2 = Unsatisfactory (U)	There were major shortcomings; quality of implementation/execution was substantially lower than expected
1 = Highly Unsatisfactory (HU)	There were severe shortcomings in quality of implementation/execution
Unable to Assess (UA)	The available information does not allow an assessment of the quality of implementation and execution

Sustainability Ratings Scale	
Ratings	**Description**
4 = Likely (L)	There are negligible risks to sustainability
3 = Moderately Likely (ML)	There are moderate risks to sustainability
2 = Moderately Unlikely (MU)	There are significant risks to sustainability
1 = Unlikely (U)	There are severe risks to sustainability
Unable to Assess (UA)	Unable to assess the expected incidence and magnitude of risks to sustainability

Outcome Ratings Scale - Relevance, Effectiveness, Efficiency	
Ratings	**Description**
6 = Highly Satisfactory (HS)	Level of outcomes achieved clearly exceeds expectations and/or there were no shortcomings
5 = Satisfactory (S)	Level of outcomes achieved was as expected and/or there were no or minor shortcomings
4 = Moderately Satisfactory (MS)	Level of outcomes achieved more or less as expected and/or there were moderate shortcomings.
3 = Moderately Unsatisfactory (MU)	Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings
2 = Unsatisfactory (U)	Level of outcomes achieved substantially lower than expected and/or there were major shortcomings.
1 = Highly Unsatisfactory (HU)	Only a negligible level of outcomes achieved and/or there were severe shortcomings
Unable to Assess (UA)	The available information does not allow an assessment of the level of outcome achievements

Annex 7. Theory of Change Analysis Tables

Table 7-1: Theory of Change Impact Drivers, Assumptions, Intermediate States and Impact

Objective/ Outcomes Impacts	Impact Drivers & Assumptions	Intermediate States	Impact
OBJECTIVE: Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in the Republic of Belarus	***ID:*** Obtain support for POPs project from the Inter-Agency Coordination Council (IACC) Establishment of partnership agreements with PCB equipment owners on PCB management Establishment of financial agreements on PCB disposal Environmental sound destruction of PCBs Environmental sound destruction of OPs ***A:*** The IACC has the authority to provide the support needed by the POPs project Legislation in place that requires PCB equipment owners to enter partnership agreements Financial resources are available to support agreements on PCB rural storage	***IS:*** The national government is providing support to POPs management; PCB equipment owners are engaged through partnership agreements and the environmental sound storage and disposal of PCBs and OPs is well underway	**Long Term Goal:** Belarus is fully capable of managing POPs and related waste legacies in-line with international standards and agreements
OUTCOME 1 Sustainable PCB Management	***ID:*** Best practices established, embedded in national technical standards and adopted by major PCB holders Staff technically trained to use best practices PCB inventory maintained and reported PCB phase-out planned Disposal capacity at Chechersk operational Environmentally sound destruction of PCBs is well underway	***IS:*** A fully functional PCB management system is in place to completely phase-out PCBs	

Table 7-1: Theory of Change Impact Drivers, Assumptions, Intermediate States and Impact

Objective/ Outcomes Impacts	Impact Drivers & Assumptions	Intermediate States	Impact
	A: Capacity to develop, embed and train staff on best practices occurs within project period Knowledge available to inform inventory and phase-out planning of PCBs Chechersk has the capacity to be operational Facilities are available to receive PCBs for environmentally sound destruction		
OUTCOME 2 Elimination of Obsolete Pesticide Legacies	***ID:*** Rural OP storage facilities are assessed and brought up to national standards Environmentally sound disposal of OPs from rural storage facilities completed Inground OP disposal sites assessed, cleanup action plans developed and long-term financial resources required for containment and cleanup secured	***IS:*** The existing OPs in rural storage facilities are environmentally disposed of and there is a long-term plan, with financing, to contain and cleanup inground OP disposal sites	**Long Term Goal:** Belarus is fully capable of managing POPs and related waste legacies in-line with international standards and agreements
	A: The capacity (staff, technical skills, financing) necessary to bring all rural OP storage facilities up to national standards is available Facilities are available to receive OPs for environmentally sound destruction The location of all inground OP disposal sites is known The capacity (staff, technical skills, equipment, financing) is available to characterize inground OP disposal sites The required amount of long-term financing required to contain and cleanup inground OP disposal sites is available		

Table 7-1: Theory of Change Impact Drivers, Assumptions, Intermediate States and Impact

Objective/ Outcomes Impacts	Impact Drivers & Assumptions	Intermediate States	Impact
OUTCOME 3 Capacity Strengthening and Planning for Sound Chemicals	***ID:*** Comprehensive interagency and public input to a national policy and framework for sound chemical management Chemical management practices meet EU standards and regional trade agreements Staff training completed and upgraded monitoring equipment and program implemented ***A:*** Interagency cooperation and public input will contribute to a national policy and framework that meets EU standards The capacity (staff, technical skills, equipment, financing) exists to sustain a national monitoring program The public, including targeted inclusion of women, are able to participate in awareness raising events	***IS:*** A national policy and framework for sound chemical framework is approved, implemented and validated through interagency cooperation and a national monitoring program	**Long Term Goal:** Belarus is fully capable of managing POPs and related waste legacies in-line with international standards and agreements

Table 7-2: Impact Assessment of the Theory of Change (see ROtI rating scale at end of table)

Theory of Change Component	Qualitative Analysis	Rating
Objective: Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in the Republic of Belarus		
ID: Obtain support for POPs project from the Inter-Agency Coordination Council (IACC) Establishment of partnership agreements with PCB equipment owners on PCB management Establishment of financial agreements on PCB disposal Environmental sound destruction of PCBs Environmental sound destruction of OPs	• Inter-agency coordination and the establishment of partnership and financial agreements with PCB equipment owners has been achieved • environmentally sound destruction of PSBs and OPs has been achieved	**3**
A: The IACC has the authority to provide the support needed by the POPs project Legislation in place that requires PCB equipment owners to enter partnership agreements Financial resources are available to support agreements on PCB disposal	• The IACC has provided the support needed for the engagement and participation of relevant stakeholders • Engagement of PCB equipment owners has not encountered any issues and financial contributions have exceeded what was planned	**3**
IS: The national government is providing support to POPs management, PCB equipment owners are engaged through partnership agreements and the environmental sound storage and disposal of PCBs and OPs is well underway	• The POPs project objective has been achieved based on the support provided by the national government, the engagement of PCB equipment owners and the environmentally sound disposal of POPs achieved.	**3**

Table 7-2: Impact Assessment of the Theory of Change (see ROtI rating scale at end of table)

Theory of Change Component	Qualitative Analysis	Rating
Outcome 1: Sustainable PCB Management		
ID: Best practices established, embedded in national technical standards and adopted by major PCB holders Staff technically trained to use best practices PCB inventory maintained and reported PCB phase-out planned Disposal capacity at Chechersk operational Environmentally sound destruction of PCBs is well underway	• The POPs project has completed capacity development for staff engaged in PCB management • The national Unified POPs database has been upgraded and is updated annually • Planning for PCB phase out included in the State programme for implementation 2021-2025 with mandatory co-financing from the holders/ producers of PCBs • Cherchersk facility commissioning has not been completed due to challenges faced by the separate UNIDO project tasked with construction of the treatment/disposal facility • The POPs project has meet targets for environmentally sound destruction of PCBs	**2**
A: Capacity to develop, embed and train staff on best practices occurs within project period Knowledge available to inform inventory and phase-out planning of PCBs Chechersk has the capacity to be operational Facilities are available to receive PCBs for environmentally sound destruction	• With assistance from the POPs project technical staff in Belarus have been engaged and they have the knowledge and experience from participation in the project to support ongoing PCB inventory and phase-out • Reliance on the UNIDO project to operationalize the Chechersk facility has resulted in the inability of the POPs project to fully achieve all targets for SRF Indicator 5 • Despite challenges in contracting facilities and transport for environmentally sound destruction of PCBs outside Belarus the POPs project has been successful	**2**
IS: A fully functional PCB management system is in place to completely phase-out PCBs	• A fully functional PCB management systems is in place. While the Chechersk facility is not certified for POPS disposal, the facility is being used as an important POPs collection, characterization, repackaging and consolidation hub which is a vital link in the chain of PCB disposal.	**3**

Table 7-2: Impact Assessment of the Theory of Change (see ROtI rating scale at end of table)

Theory of Change Component	Qualitative Analysis	Rating
Outcome 2: Elimination of Obsolete Pesticide Legacies		
ID: Rural OP storage facilities are assessed and brought up to national standards Environmentally sound disposal of OPs from rural storage facilities completed Inground OP disposal sites assessed, cleanup action plans developed and long-term financial resources required for containment and cleanup secured	• Environmentally sound disposal of OPs from all rural storage facilities has been completed • All inground OP disposal sites have been fully assessed (reconnaissance survey; soil sampling; aerial photography to determine the area of pollution) and action plans (including steps required and cost) have been prepared. • One burial site has local budget funds allocated in State programme for 2021-2025 (Petrikov burial site) • UNDP has developed a Concept Note seeking external funding for the remaining burial sites. Funding has not yet been secured.	**2**
A: The capacity (staff, technical skills, financing) necessary to bring all rural OP storage facilities up to national standards is available Facilities are available to receive OPs for environmentally sound destruction The location of all inground OP disposal sites is known The capacity (staff, technical skills, equipment, financing) is available to characterize inground OP disposal sites The required amount of long-term financing required to contain and cleanup inground OP disposal sites is available	• Facilities in Belarus (Chechersk Facility) are not available to receive Ops for environmentally sound destruction. The POPs project has used facilities outside Belarus for environmentally sound disposal of OPs. • There were no issues locating OP disposal sites and the POPs project provided capacity development (training, equipment) to characterize OP disposal sites and develop action plans for their elimination • The POPs project has identified the substantial costs for elimination of OP disposal sites, however, it was not able to secure the amount of funding required to initiate all OP disposal site Action Plans.	**2**
IS: The existing OPs in rural storage facilities are environmentally disposed of and there is a long-term plan, with financing, to contain and cleanup inground OP disposal sites	• Existing OP storage facilities have been cleared, cleaned and OPs have been environmentally disposed • There remains a need to secure funding to implement Action Plans prepared for all OP burial sites	**2**

Table 7-2: Impact Assessment of the Theory of Change (see ROtI rating scale at end of table)

Theory of Change Component	Qualitative Analysis	Rating
Outcome 3: Capacity Strengthening and Planning for Sound Chemicals		
ID: Comprehensive interagency and public input to a national policy and framework for sound chemical management Chemical management practices meet EU standards and regional trade agreements Staff training completed and upgraded monitoring equipment and program implemented	• The Inter-Agency Coordination Council (IACC) has recommended fulfillment of the SC; Ratification of Rotterdam Convention in progress; a draft law on ratification of Minamata Convention has been developed and the ratification process officially started; and the Basel Convention has been in force since 2000. All factors that demonstrate Belarus is committed to meeting EU chemical management standards. • The POPs project has conducted extensive capacity development and provided essential monitoring equipment	**3**
A: Interagency cooperation and public input will contribute to a national policy and framework that meets EU standards The capacity (staff, technical skills, equipment, financing) exists to sustain a national monitoring program The public, including targeted inclusion of women, are able to participate in awareness raising events	• Technical staff have been trained, provided equipment and participated in all aspects of the POPS project providing them with the capacity to sustain a national chemical management program • Awareness raising has been provided, and has targeted included a gender lens to target the unique risks POPs pose for women. There have been no follow-up surveys to assess the level of knowledge of those who participated in training sessions	**3**
IS: A national policy and framework for sound chemical framework is approved, implemented and validated through interagency cooperation and a national monitoring program	• The legislative and policy framework and technical capacity is in place for sound chemical management. Nonetheless, with limited financial resources it is unclear to what extent sound chemical management practices will be implemented.	**3**
Overall project summary findings: The POPs project Theory of Change has effective impact drivers that are based on valid assumptions. The sound logic of the ToC is validated in the intermediate states achieved for the project objective and outcomes which demonstrate excellent progress towards achievement of the long-term goal.		**3**

Review of Outcomes to Impacts (ROtI) Handbook (2009) rating scale used in Table-2-2

Not achieved (0) the ToC component was not explicitly or implicitly identified by the project, and/or very little progress has been made towards achieving the interim target of the ToC component, and the conditions for future progress are not in place.

Poorly achieved (1) very little progress has been made towards achieving the interim target of ToC component, but the conditions are in place for future progress should support be provided to complete this component.

Partially achieved (2) the ToC component is explicitly recognized and the mechanisms set out to achieve it are appropriate but insufficient to ensure successful completion and sustainability upon project closure and meaningful progress towards achievement of the long-term goal.

Fully achieved (3) the ToC component is explicitly recognized and appropriate activities are underway with interim targets achieved. Mechanisms are in place that show progress towards achievement of the ToC component and there is assurance of substantial contribution towards achievement of the long-term goal.

Annex 8. SMART Review of Project Indicators

Table 8.1 SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) Review of Project Indicators (The indicator analysis used a three point colour rating system, with green for “compliant”, orange for “questionably compliant”, and red for “not compliant” when assessed against “SMART” criteria)

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Project Objective: Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in the Republic of Belarus							
Mandatory Indicator 1 (Indicator 1.3.1 of IRFF the 2014-2017.) Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level , disaggregated by partnership type	• Inter-Agency Coordination Council (IACC) on implementation of Basel, Stockholm, Rotterdam, Minamata conventions act provide inter-conventions support for the project on the country level • At least 300 finance partnership agreements on PCBs management between PCB based equipment owners and the project conducted and implemented 77 finance partnership agreements on PCBs management between rural storages owners and the project conducted						• Indicator meets all SMART criteria • The three end of project targets provide a cumulative assessment of progress towards achievement of the indicator • Unclear if IACC support must be include financial support to project • The POPs project 2021 inventory determined 34 rural storage owners remain in Belarus. The target can be adjusted accordingly.

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Mandatory indicator 2. # of direct project beneficiaries	• At least 300 PCB based equipment owners taken part in the project as partners • 77 rural storages owners taken part in the project as partners • 59 Institutional Stakeholders taken part into the project decision making						• First two end of project targets repeat measures # 1 & 2 listed in Mandatory Indicator 1 above • Indicator includes three measures as identified by the of project targets
Indicator 3. Amounts of legacy of PCB and obsolete pesticides	• Environmentally sound destruction of 63% of total country legacy of PCB (2,370 t) • Environmentally sound cleaning of all 88 rural storages and destruction of 1,990 t of OPs stored there						• Indicator includes two measures as identified by the end of project targets 1. Destruction of PCB 2. Destruction of OPs • End of project target may not be achieved for both measures • Each measure is related to a unique set of project activities

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Outcome 1. Sustainable PCB Management							
Indicator 4. Technical procedures and practice manuals for PCB equipment holders covering registration, labelling, reporting, handling and tracking of PCB equipment in-service and as stockpiled pending elimination and as applicable to screening for cross contamination during maintenance developed and applied	• Best practice technical procedures adopted by all major holders and imbedded in relevant nation technical standards. • 60 technical staff operationally applying best practices. • Planning for next mandated PCB phase out scheduling beyond 2020 in place • Cross contamination screening embedded in operations of at least 4 major holder transformer maintenance practice. • 60 Technical staff trained and equipped with screening capability National PCB inventory and tracking fully integrated into national POPs inventory system. • PCB inventory and its reporting maintained. • Public data access maintained						• Indicator meets all SMART criteria • The seven end of project targets provide a cumulative assessment of progress towards achievement of the indicator
Indicator 5. Development of qualified capability to treat and dispose of Hazardous Waste (HW) at the Chechersk facility in Gomel Oblast and for national capability for environmentally sound management of PCB equipment.	• Treatment/Disposal capability commissioned at Chechersk. • GEF funded qualification/ demonstration testing completed and documented. • Development and business planning completed to have resulted in the selection and implementation of required PCB equipment management options.						• Indicator meets all SMART criteria • The three end of project targets provide a cumulative assessment of progress towards achievement of the indicator

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Indicator 6. Amount of currently stockpiled PCB equipment/waste and newly phased out PCB equipment shipped and eliminated.	• Environmentally sound destruction of 1,270 t of PCB equipment phased out over the project for total PCB elimination over project of 2,340 t						• indicator meets all SMART criteria • unclear why Indicator 3 refers to 2,370 t of PCB, whereas Indicator 6 refers to 2,340 t of PCB • wording of end of project target confusing, referring to two amounts of PCB destruction: 1. 1,270 t of PCB from equipment phased out during project; and 2. 2,340 t of PCB total which presumably includes 1,070 t of stockpiled PCB plus 1,270 t of newly phased out PCB
Outcome 2. Elimination of Obsolete Pesticide Legacies							
Indicator 7. Amount of OP removed from rural OP storage sites and number of rural storehouses where OPs are eliminated and sites restored	• 100% of rural storehouse sites assessed and cleaned up in accordance with national standards.						• indicator meets all SMART criteria

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Indicator 8. Number of site assessment reports and containment/cleanup action plans with financial commitments identified for containment and clean up	• 5 basic site assessments completed • 5 preliminary containment/cleanup action plans completed • Core long term financial resources for containment and clean up mobilized						• indicator meets all SMART criteria • the three end of project targets provide a cumulative assessment of progress towards achievement of the indicator
Outcome 3 Capacity Strengthening and Planning for Sound Chemicals Management							
Indicator 9. Legal, institutional and regulatory review of national chemicals management system with updates consistent with current sound chemicals management practice including EU legislation and regional trade agreements completed	• 5 interagency workshops/training events • At least 2 public consultation events. • National policy on and framework for sound chemicals management adopted and initiation initiated on a coordinated interagency basis. • Ratification of Rotterdam and Minamata Conventions • Upgraded national environmental monitoring program implemented • 2 training programs completed • GEF financed sampling and analytical equipment operational						• indicator meets all SMART criteria • the seven end of project targets provide a cumulative assessment of progress towards achievement of the indicator

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Indicator 10. Current POPs inventories (old and new POPs) updated and updated National Implementation Plan for the Stockholm Convention (NIP) prepared and submitted per country obligations	• Stockholm Convention (SC) reporting on POPs current						• indicator meets all SMART criteria • SC national reporting must be completed every four years • Fifth SC reporting cycle was 31st August 2022 • Fourth SC reporting cycle was 31st August 2018
Indicator 11. Number of public awareness events, information products (including web accessible) produced on POPs and sound chemicals management, as implemented through active NGO/Civil society partnerships.	• 16 public awareness events undertaken • 20 public information products released for dissemination • Web based platform operational and sustained • 3 NGO/civil society organizations directly engaged in project activities • 5 awareness events related to household exposure to PCBs targeting urban women • 5 awareness events related OP exposure targeting rural women • 2 awareness events on chemicals management targeting women • 40% of supervisory and technical directions in project activities held by women						• indicator meets all SMART criteria • the eight end of project targets provide a cumulative assessment of progress towards achievement of the indicator

Project Objective/ Outcome Indicators	End of Project target	TE Review					TE Review Comments
		S	M	A	R	T	
Outcome 4 Knowledge Management and M&E Management							
Indicator 12. Knowledge management applied to project in response to needs and opportunities including mid-term and final evaluation findings with lessons learned extracted.	• Knowledge management results reported • Final evaluation report ready in the end of project						• indicator meets all SMART criteria • the two end of project targets provide a cumulative assessment of progress towards achievement of the indicator

Annex 9: Terminal Evaluation Risk Ratings

Table 10-1 TE Analysis of Risk Ratings and Risk Treatment and Management Measures from ProDoc The TE analysis provides a colour-coded risk rating of High (red), Substantial (orange), Moderate (yellow) or Low (green) using the UNDP Enterprise Risk Management (ERM) Evaluation Matrix)

Risks Identified in ProDoc	Pro-Doc	TE	ProDoc Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk Category: Political				
Risk 1: Government policy and financial commitment is not sustained for the project life **P=1; I=2**	**Low**	**Moderate**	The Government of Belarus has a proven track record of a strong and proactive commitment to dealing with environmental issues particularly those associated with man-made releases and legacies, noting the country's particular history related to a global scale industrial accident in the 1980s. Specific to the POPs issue their early preparation of an NIP and sustained implementation of state-funded and periodically renewed National Programs on the issue are evidence of this. Building on the positive experience of the previous GEF/WB project, this project's design is specifically tailored to matching and facilitating the National Program implementation inclusive of direct integration of the substantial state budget resources to be dedicated to it.	***Likelihood (4)****:Highly Likely* – while there is strong political commitment there are ongoing fiscal constraints in government as demonstrated by the inability to provide 63% of the proposed POPs project co-financing. ***Impact (3):*** *Intermediate* – based on the level of POPs co-financing, the impact on future POPs management efforts may be reduced by 20-30% without additional external financing. ***Mitigation Measures***: Develop a realistic POPs management schedule for the ongoing environmentally sound disposal of POPs. Seek additional external financing (loans and grants) to support a POPs management schedule inline with commitments under the SC

Risks Identified in ProDoc	Pro-Doc	TE	ProDoc Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk Category: Organizational				
Risk 2: Institutional risks associated with poor coordination among institutional stakeholders at the national and international level **P= 1; I= 2**	**Low**	**Low**	A well developed and stable institutional structure in the government with well-defined responsibilities and working relationships was put in place under the National Program for Implementation of the SC and utilized in a similar GEF-4 project between 2009 and 2014. Within the main executing agency (MNREP), there is policy supervision provided by the First Deputy Minister, interagency oversight is provided by the Coordination Council on Implementation of the SC, and operational day to day involvement will be with a project's focal point in the Waste Management Department experienced in working with a resident PMU structure and international organizations on such projects. Similarly, virtually all the major stakeholders come with direct experience on international projects of this type and have good working relationships with all principle stakeholders. At the international level the project involves a GEF Agency with a long successful track record of GEF and other project implementation in the country, a strong portfolio of like projects in the region and globally and good working relationships with other IAs undertaking related activities in the immediate region and major bilateral donors, particularly the European Union.	***Likelihood (2):*** *Low Likelihood* – the TE not observed good coordination among institutional stakeholders at the national ***Impact (1):*** *Negligable* – there is no impact considered ***Mitigation Measures:*** Maintain communication and coordination mechanisms among government, private sector and NGO stakeholders engaged in POPs management

Risks Identified in ProDoc	Pro-Doc	TE	ProDoc Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk 3: Level of capacity (technical, institutional) is underestimated **P= 1; I= 2**	Low	Low	Belarus has demonstrated solid technical capacity developed over the last decade dealing with POPs issues and this depth along with the directed training and capacity strengthening measures designed in to project should substantively mitigate this risk.	***Likelihood (2):*** *Low Likelihood* – the TE observed good technical capacity among participating government and private sector stakeholders. In addition, capacity and experience was developed through the POPs project. There remains a need to develop the technical capacity for in-country disposal of POPs. ***Impact (2):*** *Minor* – the impact is considered minor, based on the ability to utilize POPs disposal facilities located outside Belarus ***Mitigation Measures:*** Continue to maintain the robust in-country capacity of POPs management through environmentally sound transportation and storage, and work with companies that meet international standards for environmentally sound transport and disposal for permanent disposal of POPs.

Risks Identified in ProDoc	Pro-Doc	TE	ProDoc Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk Category: Financial				
Risk 4: Cost risks associated with POPs legacy elimination **P= 1; I= 3**	**Low**	**Low**	There are always some uncertainties associated with the cost of eliminating POPs stockpiles, being subject to free market pricing for disposal and specific to this region at this time's exchange rate variability. However, the well-defined inventories already established, the use of current market pricing in cost estimating and contracting in hard currencies in bulk over the project period will all serve to mitigate these risks.	***Likelihood (2):*** *Low Likelihood* – through efficient project management the POPs project was able to targets despite higher transport and disposal costs ***Impact (2):*** *Minor* – the POPs project has demonstrated an ability to continue to function despite uncertainties created by a variable exchange rate and changes in market pricing ***Mitigation Measures:*** continue to utilize efficient management practices and adjust activities as appropriate in response to changing exchange rates and market pricing
Risk Category: Operational				
Risk 5: Industrial sector commitment to the project in terms of technical support and co-financing. **P= 2; I= 2**	**Low**	**Low**	The principle risk in this area relates to the inevitable potential that fiscal constraints will prevent major holders of PCBs from being able to undertake the anticipated accelerated replacement programs associated with the project. At this point, positive and proactive action including having a mandated national PCB phase out plan in place along with the required forward and financial planning serves to mitigate this risk.	***Likelihood (1):*** *Not Likely* – the private sector was strongly committed to participating in environmentally sound POPs management providing USD $1,493,442 co-financing. ***Impact (3):*** *Intermediate* – commitment from the private sector is essential to successful implementation of POPs management ***Mitigation Measures:*** – continue to engage the private sector in POPs management

Risks Identified in ProDoc	Pro-Doc	TE	ProDoc Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk Category: Environmental				
Risk 6: Climate risks associated with extreme events impacting project activities associated with burial sites and storehouses **P= 1; I= 2**	**Low**	**Moderate**	The location of current storehouse, PCB stockpile, and OP burial sites have no identified unique exposure to extreme climate events but activities undertaken at these sites, including planning for potential excavation activities in the future will take the possibility into consideration in determining the containment/remediation design approach.	***Likelihood (3):*** *Moderately Likely* – there were no climate change related impacts experienced by the POPs project. ***Impact (3):*** *Intermediate* – should climate related natural disasters occur at OP disposal sites this may lead to greater risk of exposure to POPs ***Mitigation Measures:*** future excavation and disposal of in-ground OP burial sites should evaluate potential climate change impacts prior to implementation activities.

Annex 10. Terminal Evaluation of Social and Environmental Screening Procedure (SESP) Risk Ratings

Table 10-1 TE Analysis of ProDoc SESP Risk Ratings and Risk Treatment and Management Measures (ProDoc ratings are provided for impact / probability; The TE analysis provides a colour-coded risk rating of High (red), Substantial (orange), Moderate (yellow) or Low (green) using the ERM Risk Evaluation Matrix)

Risks Identified in SESP	Pro Doc	T E	ProDoc SESP Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk Category: Social and Environmental Risks (as documented in ProDoc)				
Risk 1: The Project may potentially cause adverse impacts to habitats (for example, modified, natural or critical habitats, environmentally sensitive areas including legally protected areas (e.g., natural reserves, national parks), areas proposed for protection or recognized as such by authoritative sources) and /or ecosystems and ecosystem services. Impact – 2 Propability – 1	Low	Low	• The potential scale of a spillage and physical extent of any impact is minimized by the limited scale possible for the event, the nature of the materials involved, and practices applied. Virtually all OPs are in solid granular form with a risk of minor is fugitive particular release exists during source handling and packaging although it would be substantially mitigated by transfer practices. PCB oil will be in a heavy liquid form that has low vapor pressure. All transfers are undertaken using a closed pumping system. In both cases ground protection and spill containment is applied to these operations facilitating immediate cleanup of any accidental spillage. • Likewise internationally standardized dangerous goods/hazardous waste containers are specified. Liquid transport and sealed PCB equipment is done in similar containers with on-board spill containment. • This low risk concern is acknowledged in relation to a limited short duration potential for road transportation to occur in such areas given their prevalence in the country. The main mitigation for this risk will through the requirement that transport beyond an immediate rural location with be via pre-defined routing assessed and qualified for dangerous goods traffic generally, noting the normal volumes of which is far higher and of greater risk in terms of impact than that involved in the project activities, Additionally, strict application of national and international requirements for transport in terms of containment, vehicle licensing, driver training, communication capability and emergency response capability will be applied. • Facilities receiving these shipments no matter where located are designed for secure storage and containment and undergone strict regulatory siting approvals. Overall risk of significant habitat impacts are low, particularly in comparison to other normal accepted activities occurring at greater frequency and scale. Finally, any operation on waste handling up to the point of final disposal will be handled by experienced and fully permitted waste management companies operating under proper accident insurance coverage applied under UNDP procurement practice.	**Likelihood**: Not Likely (1) **Impact:** Intermediate (3) ***Mitigation Measures***: The POPs project follws international hazardous waste handling proceedures. In addition, the POPs project has improved the capacity to handle hazardous waste through staff training and the introduction of standard operating proceedures

Risks Identified in SESP	Pro Doc	T E	ProDoc SESP Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk 2: The Project poses potential risks to community health and safety due to the transport, storage and/or disposal of hazardous materials (POPs containing wastes to he managed through the Project activities). Impact – 2 Probability – 1	Low	Low	• The direct handling, transportation, treatment and destruction of hazardous waste with toxic (albeit chronic as opposed to acute) properties presents inherent risks, primarily to workers directly involved and to a much lesser degree to communities in proximity of these activities. However, direct exposure risks are mitigated and effectively eliminated by proven OHS practices and PPE protocols specified and enforced in specifications in contract documents and enforced. • Transportation risks leading to release and exposure are mitigated by specification and enforcement: of accepted international standards for containment, vehicles, qualification and emergency response. Likewise treatment ; and destruction is done to international environmental performance and release standards in countries with robust environmental and OHS regulations and enforcements • Noting that all operations are routinely and widely undertaken without issues arising, the	**Likelihood**: Not Likely (1) **Impact:** Intermediate (3) ***Mitigation Measures***: The POPs project follws international hazardous waste handling proceedures. In addition, the POPs project has improved the capacity to handle hazardous waste through staff training and the introduction of standard operating proceedures
Risk 3: The Project poses potential risks related to occupational safety due to chemical hazards during the Project implementation. Impact – 3 Probability – 1	Low	Low	• Comments above address this issue and will be formalized by adopted of contractually enforced service provide OHS plans during implementation	**Likelihood**: Not Likely (1) **Impact:** Intermediate (3) ***Mitigation Measures***: The POPs project follws international hazardous waste handling proceedures. In addition, the POPs project has improved the capacity to handle hazardous waste through staff training and the introduction of standard operating proceedures

Risk 4: The Project may potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts. Impact – 2 Probability – 2	Low	Low	• As described above the environmental release risks are low and scale of such events is limited and readily mitigated. In addition to the comprehensive specification of practices, international standards and environmental performance requirements, a key tool for management of this risk is the specification of an environmental management plan (EMP) binding service providers to specific actions and their monitoring as provided in the PD. • Where required, an environmental assessment (EA) and environmental management plan (EMP), based on sub¬contracted arrangements with a qualified waste manager, will be designed in the project document for all expected • HW management operations. Such comprehensively damage-insured sub-contracts will cover the design of PCB equipment draining procedures, needed infrastructure and the sequencing of local works at PCB and OP storage locations. • Pure PCB and obsolete pesticide materials will be transported through a tender for processing to certified hazardous waste facilities outside the country, likely located in Western Europe, and work will be undertaken by experienced and qualified service providers contracted by UNDP using specifications requiring current level of international standards and with substantive due diligence independent oversight and supervision by UNDP. All operations, once the project is approved by the GEF, will be undertaken using rigorous but well established and documented international hazardous waste and dangerous goods management practices and procedures and standards, including those set out by Basel and SC convention and GEF STAP guidelines, and internationally referenced OHS, procedures for on-site workers. No direct social impacts are , associated with this operation and public consultation in the local community will be provided for during future projects- implementation. • For all components, capacity building and training , programmes will ensure the provision of internationally available expertise and advisory support, and specifically to local personnel involved in direct work on project sites. • GEF STAP guidance on international standards and technologies provided at the time of the PIF approval, and reflected in the project documentation, will thoroughly be applied during the project implementation.	**Likelihood**: Not Likely (1) **Impact:** Intermediate (3) ***Mitigation Measures***: The POPs project follws international hazardous waste handling proceedures. In addition, the POPs project has improved the capacity to handle hazardous waste through staff training and the introduction of standard operating proceedures

Risks Identified in SESP	Pro Doc	T E	ProDoc SESP Risk Treatment and Management Measures	Terminal Evaluation Comments
Risk 5: The Project may potentially result in the generation of waste (both hazardous and non-hazardous) Impact – 2 Probability – 1	Low	Low	• Consumable waste such as spillage residuals and PPE are treated as hazardous waste and included in materials directed to environmental sound disposal. • Residuals from treatment and destruction processes (typically incineration bottom ash and air pollution control residuals) are tested as to hazard level, then either returned for incineration or if qualified disposed of in an engineered hazardous waste landfill. • Things such as decontaminated transformer shells, and shredded capacitor parts will be recycled as scrap metal	**Likelihood:** Moderately Likely (3) When repackaging OP it is moderately likely additional waste products will be generated from OP waste management containers, these materials will be added to hazardous waste for environmentally sound destruction **Impact:** Negligible (1) ***Mitigation Measures:*** The POPs project follws international hazardous waste handling proceedures. In addition, the POPs project has improved the capacity to handle hazardous waste through staff training and the introduction of standard operating proceedures

Annex 11. Terminal Evaluation of MTR Recommendations

MTR Recommendations and Management Response and Actions	TE Comments
Evaluation Recommendation 1: UNDP CO should request extension of the project by 12 months. Together with the automatic COVID-19 extension of 6 months the total extension period will be 18 months.	
Management Response: Accepted **Actions:** 1.1. Submission of documents for project extension to UNDP	A first extension request was made and granted for a six month extension (05/04/24) A second extension request was made and granted for a six month extension (05/10/24)
Evaluation Recommendation 2: UNDP and MNREP should conduct revision of the original PCB and OP waste disposal targets under Outcomes 1 and 2 and the Project Objective, and adjust them towards amounts of PCB and OP waste that can be realistically disposed of directly within the timeframe of the project (even assuming that the project extension is granted)	
Management Response: Accepted **Actions:** 2.1. Submission of adjusted Core Indicators	PCB and OP waste disposal targets were not revised, nonetheless, the waste disposal targets will be achieved by end of project
Evaluation Recommendation 3: The PMU/MNREP should ensure that the project continues to focus on disposal of the remaining PCB capacitors in the country.	
Management Response: Accepted **Actions:** 3.1. Selection of the Service Provider for the environmentally sound disposal of PCB-containing capacitors. 3.2. Conclusion of an agreement with the Service Provider for the environmentally sound disposal of PCB-containing capacitors. 3.3. Provision of the environmentally sound disposal of PCB-containing capacitors.	PCB disposal has focused on the disposal of the more fragile and leak-prone PCB containing capacitors
Evaluation Recommendation 4: The PMU/MNREP should consider recruitment of international expert for determination of feasible options of in-country pre-treatment of PCB-contaminated transformers in line with the national legislation	
Management Response: Accepted **Actions:** 4.1. Selection of an international expert who will prepare an analysis of the possibility of pre-treatment of transformers contaminated with PCBs in Belarus, taking into account the best international practices, the requirements of the Stockholm and Basel conventions and national legislation. 4.2. An international expert will prepare a report including an analysis of the possibility of pre-treatment of transformers contaminated with PCBs in Belarus, taking into account the best international practices, the requirements of the Stockholm and Basel conventions and national legislation.	The POPs project was unable to recruit an international expert. Consultations were held with an international expert on POPs issues related to pre-treatment of PCB-contaminated transformers

MTR Recommendations and Management Response and Actions	TE Comments
Evaluation Recommendation 5: The PMU/MNREP should ensure that the screening method for evaluation of possible PCB cross-contamination in non-PCB equipment is recommended as a standard practice by major operators of such equipment for determination of PCB concentration during equipment maintenance.	
Management Response: Accepted **Actions:** 5.1. Sending a recommendation to use the methodology for PCB cross-contamination screening of equipment that does not contain PCBs to the organizations of the Ministry of Energy, the Ministry of Industry that provide services of electrical equipment, in order to use it as a standard practice.	A PCB cross-contamination screening methodology was developed and tested by four organizations. A total of 500 express tests were conducted on electrical equipment with test results showing no cross-contamination of PCBs.
Evaluation Recommendation 6: MNREP should consider support for development of technical and normative base for determination of PCB concentration in transformer oil, in particular for approval of a relevant national standard and for accreditation of a national laboratory.	
Management Response: Rejected (It is proposed to determine the concentration of PCBs in transformer oil as part of the PCB cross-contamination screening procedure)	The POPs project developed eight Technical Normative Legal Acts (TNLA). The TNLA make it possible to measure POPs, in soil, water, waste, and electrical products, greatly improving the national monitoring system
Evaluation Recommendation 7: The PMU should accelerate implementation of the component on technical support for commissioning, demonstration testing and certification of the Chechersk HTI facility for ultimate disposal of Ops	
Management Response: Accepted **Actions:** 7.1. Preparation of Terms of reference for test incineration at the facility based on the Complex in Chechersk. 7.2. Selection of the Contractor for test incineration at the facility based on the Complex in Chechersk. 7.3. Carrying out test incineration at the facility based on the Complex in Chechersk. 7.4. Selection of the Contractor for certification of the Complex for compliance with ISO 9001, ISO 14001, ISO 45001 7.5. Obtaining certificates of conformity ISO 9001, ISO 14001, ISO 45001	The POPs project was unable to recruit an international expert. As such there remains a recommendation to recruit a qualified international expert to assist in the review of the proposed POPs disposal technologies and qualification/certification processes at the Chechersk facility.
Evaluation Recommendation 8: MNREP should consider extension of the project assistance towards assessment of feasibility of liquid PCB wastes destruction at the HTI in Chechersk	
Management Response: Accepted **Actions:** 8.1. In the course of conducting test incineration at the Chechersk facility and preparing a waste loading menu, the possibility of destroying liquid PCB wastes will be considered.	The POPs project has completed the preparation of an OP burn menu in preparation for disposal when the Cherchersk facility becomes operational. Information obtained during TE KII indicated liquid PCB waste destruction at the HTI Chechersk facility will not be feasible.

MTR Recommendations and Management Response and Actions	TE Comments
Evaluation Recommendation 9: MNREP should use of the next round of repackaging, transportation, and storehouse clean-up for practical training in order to develop capability of local service providers for such work and use in management of OP legacy stockpiles beyond the duration of the GEF project	
Management Response: Partially accepted (In the process of environmentally sound destruction of obsolete pesticides, including in terms of preparing waste for transboundary movement, local companies are involved as much as possible, which undergo preliminary training and thereby increase their experience in this area.) **Actions:** 9.1. Selecting a Contractor and signing a contract for the provision of services for the environmentally sound destruction of obsolete pesticides in the Minsk region 9.2. The provider of services for the environmentally sound destruction of obsolete pesticides in the Minsk region in the process of providing services will attract local companies that will be trained and increase their experience in this area	The POPs project has involved local private sector companies in OP repackaging, transportation, and storehouse clean-up, providing practical training for capacity development to allow local service providers to assist in future work on OP legacy stockpiles.
Evaluation Recommendation 10: MNREP should consider appointment of a qualified international expert to bring relevant international expertise on management, transport and ultimate disposal of hazardous waste.	
Management Response: Accepted (The Ministry of Natural Resources, as part of the implementation of recommendation 4, will involve an international expert who will prepare a report with international experience in the field of hazardous waste management) **Actions:** 10.1. An international expert will prepare a report with international experience in the field of hazardous waste management	The POPs project was unable to recruit an international expert. Consultations were held with an international expert on management, transport and disposal of hazardous waste at no cost. The PIR 2023 noted, additional review processes are needed to work with Rovami company and their selected disposal technology for PCB wastes, and international expertise is needed to support efforts in this area.
Evaluation Recommendation 11: The PMU/MNREP should follow the GEF guidelines on co-financing and systematically collect at least on a bi-annual basis information on the actual co-financing contributions to the project that support the achievement of its objectives, and report this information at least on a biannual basis.	
Management Response: Accepted **Actions:** 11.1. In the process of providing services for the environmentally sound destruction of PCB equipment, information on co-financing from the owners of PCB equipment will be collected in order to include this information in the relevant reports on the Project implementation.	The TE received the required information on POPs project co-financing contributions

Annex 12. Terminal Evaluation of Strategic Results Framework Indicator Target Achievement

Table 11.1. Terminal Evaluation of Strategic Results Framework Indicator Target Achievement (TE Indicator Achievement Ratings: Green = Full achievement; Orange = Partial Achievement; Red = No or little achievement)

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Project Objective: Protection of health and environment through elimination of retained POPs legacies and development of sustainable POPs management capacity within a sound chemicals management framework in the Republic of Belarus						
Mandatory Indicator 1 (Indicator 1.3.1 of IRFF the 2014-2017.) Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level , disaggregated by partnership type	• Institutional partnership – Inter-Agency Coordination Council (IACC) on implementation of Basel, Stockholm, Rotterdam, Minamata conventions established in 2017 and operates. Engaged 26 representatives of governmental bodies, CSOs, scientific • No finance partnerships on management of PCBs and Ops	• Institutional partnership - IACC on implementation of Basel, Stockholm, Rotterdam, • Minamata conventions act provide inter-convention support for the project on the country level • 150 finance partnership agreements on • PCBs management between PCB based equipment owners and the project conducted • 77 finance partnership agreements on • PCBs management between rural storages owners and the project conducted	• IACC on implementation of Basel, Stockholm, Rotterdam, Minamata conventions act provide inter-conventions support for the project on the country level • At least 300 finance partnership agreements on PCBs management between PCB based equipment owners and the project conducted and implemented 77 finance partnership agreements on PCBs management between rural storages owners and the project conducted	• IACC recommends fulfillment of SC • Ratification of Rotterdam Convention in progress • Draft law on ratification of Minamata Convention developed and ratification process officially started • Basel Convention in force since 2000 • 299 holders of PCB equipment participate in disposal agreements • all (34) rural OP storage owners in Belarus signed contracts for to provide services for environmentally sound destruction of OPs		• Efforts of the Belarus government to ratify conventions demonstrates support for the POPs project at the country level • All PCB equipment owners and all OP storage owners participated in the POPs project

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Mandatory indicator 2. # of direct project beneficiaries	• 700 PCB based equipment owners • 77 rural storages owners • 59 institutional stakeholders (22 ministries \ governmental entities and 37 regional entities) • 5 CSOs	• 150 PCB based equipment owners participated in the project as partners • 77 rural storages owners participate in the project as partners • 59 Institutional Stakeholders engaged to the project decision making • 5 CSOs involved in the project activities	• At least 300 PCB based. equipment owners taken part in the project as partners	• 299 holders of PCB equipment participate in disposal agreements		• PCB equipment holders assumed a financial obligation to prepare waste for transboundary movement; these obligations amounted to at least 25% of the total cost of environmentally sound destruction. • Financial obligations were not required for holders of OPs • All relevant institutional stakeholders were engaged
			• 77 rural storages owners taken part in the project as partners	• all (34) rural OP storage owners in Belarus signed contracts for to provide services for environmentally sound destruction of OPs		
			• 59 Institutional Stakeholders taken part into the project decision making	• 44 Institutional Stakeholders were engaged in the project decision making processes		
			• 5 CSOs involved in the project activities	• 6 CSOs were involved in the project activities		
Indicator 3. Amounts of legacy of PCB and obsolete pesticides	• 3,752.8t of PCB based equipment 10,174 t of OPs remaining in Belarus	• Environmentally sound destruction of 1,100 t of currently stockpiled PCB equipment and waste. • 1,900 t of OPs packaged, transported and disposed of in an	• Environmentally sound destruction of 63% of total country legacy of PCB containing equipment (2,370 t)	• Environmentally sound destruction 1,140 t of PCB containing equipment exported outside the Republic of Belarus with plans for an additional 46 t in 2024 for a total of 1,186 t of PCB		• Plans are in place to export an additional 46 t of PCB containing equipment in 2024 • ProDoc states total PCB containing equipment is 3,752.8 t (63% = 2,364.3 t) • During the initial stage of project implementation, the

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
		environmentally sound manner	• Environmentally sound cleaning of all 88 rural storages and destruction of 1,990 t of OPs stored there	• 21 rural storage warehouses cleared with plans for an additional 12 rural storage warehouses to be cleared in 2024, for a total of 33 rural storage warehouses • •Environmentally sound destruction of 921 t of OPs completed, with plans for an additional 630 t in 2024 for a total of 1,551 t of Ops		National Executive Organization (MNREP) in consultation with the PMU made a decision on priority removal and destruction of PCB-containing capacitors as the most hazardous type of PCB-containing waste. Thus, PCB-containing transformers, (1,490 tons in the country), were excluded from the assessment of this indicator. • Increased cost of PCB destruction meant the POPs project had insufficient funds to achieve the PCB destruction target of 2,370 t • ProDoc stated 88 rural OP storage facilities. • Actual number of rural OP storage facilities determined by POPs project is 33 with an estimated 1,470 t of OPs • Plans in place to clear all 33 rural storage warehouses before end of project • Plans are in place to remove an additional 630 t of OPs from Minsk region in 2024 • OP destruction target will be met before end of project

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Outcome 1. Sustainable PCB Management.						
Indicator 4. Technical procedures and practice manuals for PCB equipment holders covering registration, labelling, reporting, handling and tracking of PCB equipment in-service and as stockpiled pending elimination and as applicable to screening for cross contamination during maintenance developed and applied	• PCB holders identified and general initial technical assistance provided during previous GEF/WB project • Generally good awareness of PCB issues exists with major PCB holders within formal sectors under government oversight (large majority of holders). • Limited awareness among peripheral industrial holders. • Within the national POPs inventory reporting system, annual reporting of PCBs by sector, regional and major holder in place. • International reporting current and web accessible • Survey of extent of cross contamination undertaken in GEF/WB project.	• Best practice guidance manuals developed and distributed to all major PCB holders. • 3 workshop training events completed Compliance with mandated PCB phase out targets for current mandated program Technical procedure documentation on cross contamination and screening developed and disseminated • Expanded reporting at the holder level developed. • PCB inventory and its reporting maintained. • Public data access maintained	• Best practice technical procedures adopted by all major holders and imbedded in relevant nation technical standards.	• MNREP resolution No. 62 (June 24, 2008) approving the rules on the decommissioning and consolidation of PCB equipment for removal and disposal developed by the POPs project were distributed among holders of PCB equipment		• Seminar for holders of PCB-containing equipment, to train specialists in best practices for screening for PCB cross-contamination.
			• 60 technical staff operationally applying best practices.	• 84 technical specialists trained in best practices		
			• Planning for next mandated PCB phase out scheduling beyond 2020 in place	• Planning for PCB phase out included in the State programme for implementation 2021-2025 with mandatory co-financing from the holders/ producers of PCBs		
			• Cross contamination screening embedded in operations of at least 4 major holder transformer maintenance practice.	• 4 organizations using cross-contamination screening methodology		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
			• 60 Technical staff trained and equipped with screening capability	• 170 technical staff trained and equipped with screening capability		
			• National PCB inventory and tracking fully integrated into national POPs inventory system.	• PCB reporting, tracking and inventory in upgraded, modernized national Unified POPs Database		
			• PCB inventory and its reporting maintained.	• PCB reporting, tracking and inventory in upgraded, modernized national Unified POPs Database		
			• Public data access maintained	• Public access will be provided when Unified POPs Database launched		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Indicator 5. Development of qualified capability to treat and dispose of HW at the at Chechersk facility in Gomel Oblast and for national capability for environmentally sound management of PCB equipment.	• Chechersk facility provides basic infrastructure to host HW treatment/disposal capability • Core capital financial funding dedicated by Gomel Oblast Feasibility studies on technology selection initiated • With the exception of secure storage at holder sites and the Chechersk facility national PCB management does not exist.	• Selection of treatment/disposal • Technology completed/procured • GEF supported technical assistance for this process delivered • Completion of a need and option assessment related to PCB equipment management capability requirements	• Treatment/Disposal capability commissioned at Chechersk.	• Treatment/Disposal capability has not yet been commissioned at Chechersk.		• Cherchersk facility commissioning not completed due to challenges faced by the separate UNIDO project tasked with construction of the treatment/disposal facility • The GEF funded POPs project has prepared 1,000 barrels of OP for disposal when Cherchersk facility is commissioned
			• GEF funded qualification/ demonstration testing completed and documented.	• GEF funded OP testing, separation, chemical characteristics, burn menu completed, Qualification/ demonstration testing can not be completed and documented until the Chechersk facility is commissioned.		
			• Development and business planning completed to have resulted in the selection and implementation of required PCB equipment management options.	• The POPs project has developed an innovative mechanism for POPs management, whereby the Cherchersk facility tests, repackages, obtains export permits and arranges transport for environmentally sound destruction of PCB and OP hazardous waste		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Indicator 6. Amount of currently stockpiled PCB equipment/waste and newly phased out PCB equipment shipped and eliminated.	• 1,100 t of currently stockpiled equipment immediately available for shipping and environmentally sound disposal. • 2,602 t of PCB based equipment remaining in service • Removal of 1,937 t of PCB based equipment and waste mandated under National Program from service	• Environmentally sound destruction of 1,100 t of currently stockpiled PCB equipment and waste.	• Environmentally sound destruction of 1,270 t of PCB equipment phased out over the project for total PCB elimination over project of 2,340 t	• Environmentally sound destruction 1,140 t of PCB containing equipment exported outside the Republic of Belarus, with plans for an additional 46 t in 2024 for a total of 1,186 t of PCB		• Plans are in place to export an additional 46 t of PCB containing equipment in 2024 • ProDoc states total PCB containing equipment is 3,752.8 t (63% = 2,364.3 t) • During the initial stage of project implementation, the National Executive Organization (MNREP) in consultation with the PMU made a decision on priority removal and destruction of PCB-containing capacitors as the most hazardous type of PCB-containing waste. Thus, PCB-containing transformers, (1,490 tons in the country), were excluded from the assessment of this indicator. • Increased cost of PCB destruction meant the POPs project had insufficient funds to achieve the PCB destruction target of 2,370 t

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Outcome 2. Elimination of Obsolete Pesticide Legacies						
Indicator 7. Amount of OP removed from rural OP storage sites and number of rural storehouses where OPs are eliminated and sites restored	• 1,900 t of OPs stored in 88 rural stockpile sites. • Environmental conditions on the sites are largely unassessed	• 1.900 t of OP packaged. transported and disposed of in an environmentally sound manner in accordance with international standards. • 50% of sites assessed and required clean up completed in accordance with national standards.	• 100% of rural storehouse sites assessed and cleaned up in accordance with national standards.	• 21 rural storage warehouses cleared with plans for an additional 12 rural storage warehouses to be cleared in 2024, for a total of 33 rural storage warehouses • Environmentally sound destruction of 921 t of OPs completed, with plans for an additional 630 t in 2024 for a total of 1,551 t of OPs		• Plans are in place to remove an additional 630 t of OPs from Minsk region • ProDoc stated 88 rural OP storage facilities. • Actual number of rural OP storage facilities determined by POPs project is 33 with an estimated 1,470 t of OPs • According to OP disposal contracts, warehouse cleaning is carried out and completed after the pesticides are loaded onto the vehicle s for transport to an environmentally sound destruction facility.
Indicator 8. Number of site assessment reports and containment/cleanup action plans with financial commitments identified for containment and clean up	• 5 remaining burial sites nominally monitored • Periodic excavation of Petrikov site ongoing • No new financial commitments to address remaining sites	• 3 basic site assessments completed • 2 preliminary containment/cleanup action plans completed	• 5 basic site assessments completed	• 5 site assessments completed		• assessment included:- reconnaissance survey; soil sampling; aerial photography to determine the area of pollution • action plans include implementation timing and cost • due the high cost of OP burial clean-up a Concept Note has been prepared to secure external funding
			• 5 preliminary containment/cleanup action plans complete	• 5 action plans completed		
			• Core long term financial resources for containment and clean up mobilized	1 burial site has local budget funds allocated in State programme for 2021- 2025 (Petrikov burial site)		
Outcome 3 Capacity Strengthening and Planning for Sound Chemicals Management						

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Indicator 9. Legal. institutional and regulatory review of national chemicals management system with updates consistent with current sound chemicals management practice including EU legislation and regional trade agreements completed	• Fragmented and dated regulatory regime for chemicals management exists across multiple institutional agencies. • No current direct policy. legislative and regulatory initiatives in place. • Negative trade and economic implications in relation to regional trade developments. Outstanding ratification of chemicals related conventions • Basic national environmental monitoring system in place and operation. • Aging sampling and analytical capability limiting effectiveness	• Active interagency facilitation on sound chemicals management established. • At least 2 interagency workshops/training events • Legislative/ regulatory gap analysis respecting general sound chemicals management completed. • At least 1 public consultation event Assessment of environmental monitoring program completed • One training program for staff completed. Identification and procurement of sampling and analytical equipment initiated • EU program finalized	• 5 interagency workshops/training events	• 7 online awareness raising seminars with government and non-government speakers targeting owners of POPs containing waste		• Technical Normative Legal Acts (TNLA) will make it possible to determine the presence of POPs, in soils, water, waste, and electrical products, for which previously there were no methods of determination, this will greatly improve the national environmental monitoring system • AOX analyzer to be used for local state monitoring of wastewater from pulp and paper industry to enforce laws that do not allow the presence of AOX in wastewater
			• At least 2 public consultation events.	• 3 public consultations regarding POPs legislation attended by 20 representatives of public and private organizations		
			• National policy on and framework for sound chemicals management adopted and initiation initiated on a coordinated interagency basis.	• An Instruction on accounting for the production of wastes (including POPs) that applies to all organizations was developed and approved		
			• Ratification of Rotterdam and Minamata Conventions	• Ratification of Rotterdam Convention in progress • Draft law on ratification of Minamata Convention developed and ratification process officially started		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
		and under implementation	• Upgraded national environmental monitoring program implemented	• 8 Technical Normative Legal Acts (TNLA) developed and approved to upgrade national environmental monitoring program		
			• 2 training programs completed	• 3 training programs on the environmental monitoring program completed		
			• GEF financed sampling and analytical equipment operational	• AOX (adsorbed organic halides) analyzer and auxiliary equipment and materials transferred to the State Institution "Republican Center for Analytical Control in the Field of Environmental Protection".		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Indicator 10. Current POPs inventories (old and new POPs) updated and updated National Implementation Plan (NIP) for SC prepared and submitted per country obligations	• Parallel national program on • POPs in place • Inventories of “old” POPs current • Inventories on “new” POPs initiated.	• All inventories completed • NIP prepared, endorsed and submitted	• SC reporting on POPs current	• As required by the NIP, an inventory and report of POPs is completed annually, including the original list of POPs from the SC and "newer" POPs as required by SC obligations • The POPs project assisted in the preparation and submission of 5th SC National Report due 31st August 2022		• The POPs project assisted in the development of a new national plan for implementation of the SC on POPs for 2021-2025. • The POPs project assisted in the development of a Modernized Unified POPs Database to enable automated collection and processing of POPs data that will support preparation of the 6th SC National Report due 31st August 2026.
Indicator 11. Number of public awareness events, information products (including web accessible) produced on POPs and sound chemicals management, as implemented through active NGO/Civil society partnerships.	• Regular but limited public information and awareness undertaken by MNREP • Maintained Web site on POPs in place • No directed public information/awareness on broader sound chemicals management issues. • Active engagement of a robust NGO/civil society community in MNREP activities.	• 16 public awareness events undertaken • 50 public information products released for dissemination • Upgraded web based platform operational • 2 NGO/civil society organizations directly engaged in project activities • 5 awareness events related to household exposure to PCBs	• 16 public awareness events undertaken	• 16 online events were held to raise awareness of POP-containing waste, especially women of reproductive age and other stakeholders		• Project website currently hosted on government website. MNREP will determine the agency responsible to sustain the project website
			• 20 public information products released for dissemination	• 15 public information products released		
			• Web based platform operational and sustained	• POPs project website operational and sustained http://soz.minpriroda.gov.by/		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
	• Currently no gender specific policies in effect associated with POPs management and chemicals management	targeting urban women • 5 awareness events related OP exposure targeting rural women • 2 awareness events on chemicals management targeting women • 40% of supervisory and technical directions in project activities held by women	• 3 NGO/civil society organizations directly engaged in project activities	• 6 NGOs engaged to make presentations at a project sponsored public awareness raising seminar		
			• 5 awareness events related to household exposure to PCBs targeting urban women	• 11 in-person seminars were held on the impact of household PCBs on urban women's health		
			• 5 awareness events related OP exposure targeting rural women	• 8 in-person seminars were held on the impact of OPs on rural women's health		
			• 2 awareness events on chemicals management targeting women	• 10 in-person seminars were held on chemical management targeting women		
			• 40% of supervisory and technical directions in project activities held by women	• POPs Project Board – 11 (69%) women and 5 (31%) men • POPs technical staff – 2 (40%) women and 3 (60%) men (Note: one additional male technical staff was engaged for a short term contract)		

Project Objective/ Outcome Indicators	Baseline Level	Midterm Target	End of Project Targets	TE Assessment	Rating	Justification for Rating
Outcome 4 Knowledge Management and M&E.						
Indicator 12. Knowledge management applied to project in response to needs and opportunities including mid-term and final evaluation findings with lessons learned extracted.	• Knowledge management not part of project baseline situation • Limited M&E applied to project issues and baseline activities	• Knowledge development integrated into project activities • M&E plan adopted and implemented Mid-term-evaluation of project outputs and outcomes conducted with lessons learnt at 30 months of implementation.	• Knowledge management results reported • Final evaluation report ready in the end of project	• Knowledge management results reported effectively • Final evaluation report ready at end of project		• Knowledge management results reporting included: - MNREP Annual Reports - Annual PIR - MTR - PB Minutes - POPs database updated to improve functionality - POPs website updated regularly - 8 TNLA developed

Annex 13. Terminal Evaluation Clearance Form

TE Report Clearance Form

Terminal Evaluation Report for *GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project (GEF PIMS #5532)*

Reviewed and Cleared By:

Commissioning Unit (M&E Focal Point: RBM and M&E Analyst)

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Date: 13 May 2024

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Annex 14. TE Audit Trail *(annexed in a separate file)*

Annex 15. GEF Core Indicators and Tracking Tools

MANAGEMENT AND DISPOSAL OF POPs

Project title	GEF-6 Belarus POPs Legacy and Sustainable Chemicals Management Project
Country	Belarus
GEF Agency	UNDP
GEF PMIS #	8017

New tools and regulatory, and economic approaches

Indicators	Number	Qualitative comments from the project team or the GEF Agency
Indicator 1.1.1: Number of demonstrated tools for new POPs and waste issues	0	
Indicator 1.1.2: Prioritized list of actions for reducing/eliminating POPs and waste	1	The National Action Plan for the implementation of the Stockholm Convention for 2021-2025 has been developed and is being implemented, including activities to eliminate stockpiles of obsolete pesticides and PCBs.
Indicator 1.2: Number of technologies demonstrated, deployed and transferred	0	

Enabling Activity

Indicators	Number	Qualitative comments
Indicator 2.3.1: Number of NIP updates completed	1	A dedicated project output involves updating the national NIP
Indicator 2.3.2: Number of countries that have integrated the NIP updated process into their own budget[.2]	1	NIP has been developed and during its formulation national level consultations have been held on national budgetary aspects to support the implementation of the updated NIP.
Indicator 2.4: Number of baseline monitoring stations established and number of laboratories strengthened.	2	National environmental laboratory upgraded and expanded monitoring capability to be developed

Progress in update of NIPs

Implementation Status	Yes = 1 No = 0	Qualitative comments from the project team or the GEF Agency
NIP coordinating mechanism in place	1	
Inventories undertaken	1	Held annually
Draft updated NIP prepared	1	Planned during project implementation
Updated NIP submitted to the Stockholm Convention	1	Planned during project implementation

POPs elimination or reduction

Indicators	Quantity (tons)		Cost[1] ($ per ton)	Qualitative comments[2,3] from the project team or the GEF Agency
	Project target	Achieved to date		
Indicator 3.1: Amount and type of POPs eliminated or reduced PCB obsolete pesticides, including POPs pesticides	2,370 1,900	1,140 970	2,365 2,450 3,956	The number of obsolete pesticides decreased from 1900 tons to 1520 tons due to the fact that before the start of the Project, part of the waste was sent for long-term storage to the Complex for Processing and Disposal of Toxic Waste of the Gomel Region. 100 tons of obsolete pesticides destroyed at the time of mid-term assessment. 970 tons of obsolete pesticides destroyed at the time of final assessment. Due to the increase of the cost of energy resources and the cost of freight transportation, the cost of 920 tons (the first stage of export) amounted to 2270 EUR per ton and 600 tons (the second stage of export) amounted to 3663 EUR per ton; procurement procedures were carried out in the format of open

				tenders and proposals with the lowest price were selected. 0 tons of PCB-containing equipment destroyed at the time of mid-term assessment. 1140 tons of PCB-containing equipment destroyed at the time of final assessment. For the same reasons, the cost of PCB-containing equipment disposal increased to $2,365 per 1 ton. The volumes of PCB removal and elimination were adjusted to take into account the elimination of all agricultural stores of obsolete pesticides.
Details				
Disposal of PCB concentrated oils	NA			
Disposal of PCB contaminated oils	NA			PCB cross-contamination screening indicated the absence of PCB-contaminated transformers oils
Disposal of PCB capacitors	1,815	1,140	2,365	0 tons of PCB-containing equipment destroyed at the time of mid-term assessment. 1140 tons of PCB-containing equipment destroyed at the time of final assessment. Since the start of the project, the cost of disposing of PCB-containing equipment has risen to $2,365 per ton, which has caused a decrease in the amount of waste disposed of. Procurement procedures were

				carried out in the format of open tenders and proposals with the lowest price were selected.
Disposal of PCB contaminated equipment and wastes	555	0	0	PCB cross-contamination screening indicated the absence of PCB-contaminated equipment. The inventory results also confirm that there is only PCB-containing equipment in the country (not contaminated).
Reduction of annual use of DDT	NA			
Reduction or avoidance of UP-POP through BAT/BEP application	NA			
Disposal of obsolete pesticides, including POPs pesticides	1,900	970	2,450 3,956	The number of obsolete pesticides decreased from 1900 tons to 1520 tons due to the fact that before the start of the Project, part of the waste was sent for long-term storage to the Complex for Processing and Disposal of Toxic Waste of the Gomel Region. 100 tons of obsolete pesticides destroyed at the time of mid-term assessment. 970 tons of obsolete pesticides destroyed at the time of final assessment. Due to the increase of the cost of energy resources and the cost of freight transportation, the cost of 920 tons (the first stage of export) amounted to 2270 EUR per ton and 600 tons (the second stage of export) amounted to 3663 EUR per ton; procurement procedures were carried out in the format of open tenders and proposals with the lowest price were selected.
Safeguard of obsolete pesticides,				

including POPs pesticides	NA			
Eliination or restriction of the production and use of newly listed POPs		0	NA	

Regional approaches in LDCs and SIDS

Indicators	Number	Qualitative comments[1] from the project team or the GEF Agency
Indicator 6.1: The extent to which countries have successfully mainstreamed chemical priorities into national budgets.	NA	
Indicator 6.2: Number of regional/sub-regional level plans developed that account for chemicals and waste issues	0	

Annex 16. Confirmed Sources of Co-financing table

confirmed sources of Co-financing for the project by name and by type

Please include evidence for co-financing for the project with this form (please add rows as necessary)

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Investment Mobilized	Amount ($)
Recipient Country Government	Ministry of Environment	Public Investment	Investment mobilized	310,455
Recipient Country Government	Ministry of Energy	Public Investment	Investment mobilized	19,345,226
Recipient Country Government	Ministry of Environment	In-kind	Recurrent expenditures	40,000
Recipient Country Government	Gomel Oblast Administration	Public Investment	Investment mobilized	543,182
Recipient Country Government	Grodno Oblast Administration	Public Investment	Investment mobilized	160,000
Beneficiaries	PCB holders	Other	Investment mobilized	1,493,442
Donor Agency	EU Aid	Grant	Investment mobilized	2,728,077.37
Civil Society Organization	Green Economy NGO	Other	Recurrent expenditures	10,000
Total Co-financing				24,630,381.37

Annex 17. Management Response Table *(annexed in a separate file)*