Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides

Terminal Evaluation Report

Final draft version, June 5, 2015

Terminal evaluation of the project

Georgia

Mission date: March 7 to 13, 2015
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Authors: Alexandre Borde & Kate Skhireli

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Georgia – Terminal evaluation report
Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides

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Project implementing partner:	Ministry of Environment and Natural resources Protection of Georgia
Project implementing beneficiary:	Government and communities of Georgia
Evaluation team member:	Alexandre Borde and Kate Skhireli

Original project title	***Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides***

Date of approval of the concept/PDF B (equivalent to the PIF)	2009-10-06
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Funding	*At project approval (USD million)*	*At project closure (USD million)*
[1] GEF funding : [1]	1.000	1.000
[2] UNDP funding:	1.348	
[3] Government :		
[4] Other partners :		
[5] Total cofinancing [2 + 3+ 4]:	2.348	
TOTAL COST OF PROJECT [1 + 5]	3.141	

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	**Sustainability ratings:**	**Relevance ratings:**
6: **Highly Satisfactory (HS):** The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency **5: Satisfactory (S):** There were only minor shortcomings 4: **Moderately Satisfactory (MS):** there were moderate shortcomings 3. **Moderately Unsatisfactory (MU):** the project had significant shortcomings 2. **Unsatisfactory (U):** there were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency 1. **Highly Unsatisfactory (HU):** The project had severe shortcomings	4. **Likely (L):** negligible risks to sustainability 3. **Moderately Likely (ML):** moderate risks 2. **Moderately Unlikely (MU):** significant risks 1. **Unlikely (U):** severe risks	2. **Relevant (R)** 1. **Not relevant (NR)** **Impact Ratings:** 3. **Significant (S)** 2. **Minimal (M)** 1. **Negligible (N)**
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A		

[1] PDF/PPG = $; GEF Grant = $; Total Grant (PDF/PPG + GEF Grant) = $.

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Executive summary

Brief description of the project

As a result of the former planned economy system, Georgia has experienced an oversupply of pesticides and, as from the early 1970s, has been facing the major issue of accumulation of persistent organic pollutants (POPs) pesticides, mainly DDT. Given the instability regarding pesticides legislation that has occurred over the last decades in the country, the issue has remained difficult to tackle. However, especially being party of the Stockholm Convention, Georgia has defined obsolete pesticides wastes management as one of the highest priority environmental challenges in the country.

In particular, a sizeable quantity of obsolete pesticides has been collected from 1976 till 1985 into a hazardous waste dumpsite in a remote area at the Iagluja Mountain, in Marneuli district of eastern Georgia. Until recently, this dumpsite was consequently in very bad conditions. These circumstances justify intervening in this vulnerable region of Georgia, as a basis for the **project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia".**

This report focuses on the final evaluation of the project and presents the results of the assessment mission. As mentioned before, the overall project has been led in the Iagluja Mountain to tackle the special issue of POPs accumulation in this place. The project has three principal objectives:

- Strengthening legal and administrative capacity;
- Minimizing of releases from obsolete pesticide dumps;
- Establishing project monitoring, accumulation and dissemination of lessons learnt

The final evaluation team reviewed all project activities, including field activities, according to the evaluation criteria of the Global Environment Facility (GEF). The table below shows the results of the evaluation.

Evaluation rating table

The overall project is rated **Highly Satisfactory (HS)**.

Criterion	Rating	Comment
Monitoring and evaluation		
Overall quality of monitoring and evaluation	S	The overall quality of monitoring and evaluation is satisfactory
Monitoring and evaluation design at pipeline entry	S	Monitoring and evaluation have been properly planned according to the criteria of UNDP and the GEF. The project document included a satisfactory schedule and budget for monitoring and evaluation.
Monitoring and evaluation Plan Implementation	S	The monitoring and evaluation carried out are satisfactory and have enabled the objectives to be met.

Criterion	Rating	Comment
IA & EA Execution		
Quality of UNDP implementation	S	The project implementation has not raised any particular problem.
Quality of Execution by MoENRP	HS	The project execution has been effectively led and is hence highly satisfactory.
Overall quality of implementation and execution	HS	The partnership between UNDP and the Ministry of Environment and Natural Resource Protection of Georgia has led to highly satisfactory results, therefore the overall quality of implementation and execution is highly satisfactory.
Assessment of Outcomes		
Overall project outcome rating	HS	Virtually all the primary objectives figuring in the project document have been achieved; the field work has proved to be highly effective. Therefore, the overall project outcome is highly satisfactory.
Relevance	R	Given the current situation of obsolete POPs in Georgia, there was a real need for improvements in pesticides management and for cleaning up such a hazardous dumpsite.
Effectiveness	HS	Despite the delay for the project document's signature due to the new governmental clearance procedure, there has been no delay observed for the beginning of the project as well as for the end.
Efficiency	S	Financial and human resources involved in the project have been used in an efficient manner.
Sustainability		
Financial resources	ML	Financial resources have been sufficient to successfully carry out the main activities but additional fund would have been useful to take up an unexpected amount of non-soil mixed pesticides, for instance. Given the success of this project, it is likely that other financing may be dedicated to take up related activities
Socioeconomic	ML	The socioeconomic context has been moderately satisfactory; it has participated marginally to reach the objectives and should be favorable after the end of the project.
Institutional framework and governance	L	The institutional framework has fostered the implementation of the activities and should foster the sustainability of this project.
Environmental	L	The project has taken into account the expected pesticides management for the future so as to limit cases like Iagluja dumpsite; therefore, the environmental sustainability is high and the risk that this sustainability is not preserved is low.
Overall likelihood of sustainability	L	The sustainability of the project is satisfactory since the outcomes allow a sound management of pesticides wastes, and the project may be pursued in the future.

Summary of conclusions, recommendations and lessons learned from the project

The **main results** of the evaluation of the project are:

1) The project has been led quite efficiently, since for instance 230 tons of pesticides wastes have been extracted from Iagluja dumpsite to be exported to Europe where they have been soundly destroyed. In addition, hazardous pools containing pesticides have been filled and the remaining wastes have been buried in 10 sarcophagi.
2) Substantial improvements have been put in place regarding legal aspects and the project has enabled a better understanding of general pesticides wastes management in Georgian institutions.
3) Noticeable economies of scale have made possible by the project through synergies with the Multilateral Fund for the Implementation of pilot demonstration ODS Destruction project Disposal of 1,5 tons of ODS has been made possible, since it was done at the same time than POPs disposal.

Lessons	Recommendations
Pesticides wastes management is a high priority in Georgia. Despite the lack of comprehensive preparatory studies on what could be in the dumpsite, the first assessment made by NEA has revealed an important amount of hazardous chemical products that pose a serious threat to local population and, given the issue replicates in other dumpsites of the country, at a wider scale to Georgian population. Therefore, undertaking efficient measures and legal reforms to improve hazardous chemicals products management is of the essence.	One should recommend for this type of projects in the future to have preparatory sub-projects related to overall studies on the sites. It will enables having proper cost estimates on how much it would cost to address them fully with pesticides extraction and solid decontamination, which represents the larger volume and amount of work.
It is essential that the positive results of the project are disseminated and shared effectively. This project has focused on a particular dumpsite on Iagluja Mountain, but the problem concerns actually the entire country and countries of the same region such as Armenia for instance.	Therefore, as it is mentioned below, tackling the issue through regional projects will be essential as well. Furthermore, given the new objectives of the GEF, the expertise used for this project can now be expanded through several similar projects.
Risks management remains a priority for UNDP. The focus regarding risks is on safety aspects, since this kind of project encompasses direct risks (on health for instance) and indirect risks (image…). Safety is ensured through the experience and quality of experts, the quality of consulting companies doing studies on such sites and the quality of waste management companies.	This project can serve as an example for following activities within the same project or projects related to pesticides waste management. As mentioned in the lessons learned, safety can be ensured through the involvement of different skills.

In the wake of this final evaluation, a second phase may be designed and implemented to pursue the objectives of the project that would be funded by the GEF 6th cycle and co-financing. MoENRP has reviewed the results of the consultation done by the company Tauw with the support of the project. Indeed, the project has resulted in significant savings from the component on disposal of POPs. Therefore it has been able not only to develop a site

remediation action plan, but also go further with the detailed three dimensions assessment, and costing for all possible scenarios. And Implementation of the quick start measures on Iagluja, like coverage of the sarcophaguses and tranches. 4 scenarios for the next years of Iagluja dumpsite management are considered:

- **Scenario A**: a hazardous waste storage will be built on the dumpsite to store POP pesticides from other parts of the country and from the Iagluja dumpsite. These POP pesticides will be stored temporarily awaiting final destruction.
- **Scenario B:** the site is transformed into a treatment center for the POP pesticides; other agrochemicals and the contaminated soil annex hazardous waste storage. The POP pesticides and agrochemicals will be immobilized on-site, limiting further spreading. The contaminated soils will be treated with a variety of in-situ and on-site ex-situ techniques. In this scenario the site is also used for the storage of hazardous waste to store POP pesticides from other parts of the country.
- **Scenario C:** a hazardous waste storage will be built on the dumpsite to store only POP pesticides from other parts of the country. These POP pesticides will be stored temporarily awaiting final destruction. The POP pesticides and agrochemicals present at the dumpsite will be excavated, sorted and transferred to a new to be constructed landfill on the site itself. This should ensure a long lasting containment of the contaminants.
- **Scenario D:** (new scenario) Iagluja dumpsite is transformed into a soil treatment center annex hazardous waste storage and landfill site. The idea is that parts of slightly to moderately POP pesticides contaminated soil (1,500 – 2,000 m3) will be remediated with a variety of in-situ and/or on-site, ex-situ soil remediation techniques. The remaining contaminated soil and the soil mixed with POP pesticides and agrochemicals will be excavated, sorted and transferred to a new to be constructed on-site landfill. It is noteworthy that this scenario has not been planned by the project but it would serve as a good example of rational use of project savings.

The expertise deployed during this project can now be applied elsewhere in a practical manner with GEF's new objectives. The case of this project in Georgia may be considered, given the remaining needs, as only the beginning of GEF funded projects dealing with dumpsite management and such studies and actions might now be fostered.

Abbreviations

AWP: Annual Work Plan

CENN: Caucasus Environmental NGO Network

DDT: DichloroDiphenylTrichloroethane

EU: European Union

GDP: Gross Domestic Product

GEF: Global Environment Facility

LEPL: Legal Entity of Public Law

MoENRP: Ministry of Environment and Natural Resources Protection

NEA: National Environmental Agency

NFA: National Food Agency

NGO: Non Governmental Organization

NIP: National Implementation Plan

ODS: Ozone Depleting Substances

PCB: PolyChlorinated Biphenyl

PEB: Project Executive Board

PIR: Project Implementation Review

PM: Project Manager

PMU: Project Management Unit

POPs: Persistent Organic Pollutants

PPP: Purchasing Power Parity

REC: Regional Environmental Center of Caucasus

RECETOX: Research Center for Toxic Compounds in the Environment

TRAC: Target for Resource Assignment from the Core

UNDP: United Nations Development Program

UNEP: United Nations Environment Program

USD: United States dollar

WHO: World Health Organization

1. Introduction

The table below describes the evaluation criteria as required by the UNDP procedure to conduct the project terminal evaluation:

1. Relevance
▪ The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time. ▪ the extent to which the project is in line with the GEF Operational Programs or the strategic priorities under which the project was funded. ▪ Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances.
2. Effectiveness
▪ The extent to which an obejctive has been achieved or how likely it is to be achieved.
3. Efficiency
▪ The extent to which results have been delivered with the least costly resources possible; also called cost effectiness or efficacy.
4. Results
▪ The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. ▪ In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer term impact including global environmental benefits, replication effects and other local effects.
5. Sustainability
▪ The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. ▪ Projects need to be environmentally, as well as financially and socially sustainble.

1.1. Background and Rationale: Reminder of the context in Georgia and aspects related to the use of pesticides

General presentation of the country

Located on the Asian-European boundary in the Caucasus region, Georgia is a country with an area of 67,900 km² populated by about 4.5 million inhabitants. The country has an overall mountain relief; in particular its Northern boundary is part of the Greater Caucasus Mountain Range.

With a GDP of 16.13 USD billion and GDP growth of 5.6%, Georgia's economy is among the best in the former Soviet satellites, especially by distinguishing itself as a leading economic reformer. Indeed, the country has managed to significantly reduce regulations, taxes and corruption that, even is still having some weaknesses, has allowed opening up the economy and made Georgia being among the 30 freest economies in 2015. These sizeable improvements have been made through a series of new policies in addition to tariff cuts and free trade agreements.

The agricultural sector is the driving force of Georgia's economy regarding production, employment and exchange figures. Its climate affected by both subtropical and Mediterranean influences has enhanced local agricultural production, but the erosion of soils and some governance issues such as the lack of modernization in agricultural devices have considerably weakened this pillar sector on which the country relies on. A part of the inhabitants remains hit by high poverty: in 2010, it has been estimated that 9.2% of Georgia's population lived under the poverty line (that is, with less than $1.25 a day (PPP)).

Pesticides in Georgia

Due to the former planned economy system, POPs have been oversupplied during early 1970s. The case of obsolete chemical pesticides has been highlighted, among others in Georgia, over the last decades but irregularly controlled: with a series of shifts in the law on

toxic chemicals, obsolete pesticides have been successively legally and illegally imported in the country. Consequently, Georgia has accumulated an important amount of POPs that will not be used and needs to be disposed of. The country has often had recourse to the use of temporary storage and dump facilities: in 2007, 370 tons of pesticides were collected in scattered storage centers and 2,700 tons collected in landfills.

In the same time, the Stockholm Convention was made to address the challenges implied by the worldwide use of POPs, especially through their major impact on human health, and was adopted on 22 May 2001. Georgia has ratified the Stockholm Convention the 4 October 2006.

1.2. Objectives of the evaluation

Reminder of the calendar and main stakeholders of the project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides"

Supported by the Ministry of Agriculture, the Ministry of Environment and Natural resources Protection of Georgia is the principal stakeholder of this project. More generally, with assistance of UNDP/GEF, the government of Georgia has developed a National Implementation Plan (NIP) for Persistent Organic Pollutant for 2006-2018 which mainly aims in the collection and elimination of obsolete pesticides waste. Therefore, the objectives of the present project are consistent with the NIP.

The project officially started in February, 2012 for a period of 3 years, in partnership with the United Nations Development Programme (UNDP). The project has benefited from the advice and supervision of the Ministry of Environment and Natural resources Protection of Georgia. The project team began to be established in September 2011, prior to the signature of project document by the Government of Georgia and UNDP, i.e. February 2, 2012. This delayed signature by both parties was due to the newly introduced clearance procedure by the Government. While UNDP was waiting for this formal clearance, it ensured the project team to be on board and start project inception phase with TRAC resources. This accelerated the inception phase and the ability to immediately start implementing the project at the beginning of 2012.

Through the 3 major outcomes that consists in improving the legal base, the institutional and systemic capacity of POPs pesticide management and the technical capacity for the future, the project has enabled in a first time physical re-packaging of obsolete POPs wastes and their sound destruction via export to a qualified disposal plant primarily in European Union, given its proximity to Georgia.

The final evaluation field mission took place from 7 to 13 March 2015, in order to analyze the strengths and weaknesses of the project, to assess the overall and activity level of achievement from the UNDP evaluation criteria grid, and to appreciate the dynamics and importance of the project benefits.

Recommendations to all stakeholders in the project are made in this final evaluation report.

Reminder of the Terms of Reference and the methodology proposed by the consultant for the evaluation mission

The UNDP office in Georgia has recruited two individual consultants in the context of the project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia", in order to carry out its evaluation. The purpose of this assessment mission is to specify to what extent the objectives have been achieved, to identify factors that helped or hindered the program and to identify the lessons learned from the program.

During the evaluation mission of the project, the tasks of the consultants were as follows:

- Step 1. Establishment of the inception note and intervention schedule
- Step 2. Literature Review
- Step 3. Final Evaluation Field mission: interviews with stakeholders
- Step 4. Final Evaluation Field Mission: presentation of the first results
- Step 5. Completion of the report: writing and dissemination of the draft version
- Step 6. Completion of the report: integration of comments and distribution of the final version

The documents and deliverables of this mission are:

- The methodological note and the planning
- The compilation of the first results of field consultations
- The presentation of preliminary findings
- The draft report
- The final report after receiving comments

The consultants attach to this report an executive summary and appendices (Terms of Reference of the evaluation, the list of documents reviewed, the list of stakeholders met and summaries of meetings, the list of sites visited, a summary of the comments of the parties involved in the presentation and reading of the draft report, etc.).

For this evaluation mission of 20 working days between 25th of January and 16th of March, 2015, the schedule was as follows:

- Home-based literature review and preparation of the mission from February 23 to March 7, 2015
- Field mission, interviews with key stakeholders, from March 7 to 13. The agenda of this field mission is detailed in the following section.
- Writing the first draft report at home, from March 10 to 18
- Feedback from stakeholders on this first version from March 18 to 23
- Completion of the evaluation report from March 24 to 30.

1.3. Methodology and scope of the evaluation

1.3.1. Preparation of the mission (steps 1 and 2)

These steps consisted of collecting information, documents and necessary data (documents and methodological considerations listed in the terms of reference), in preparing the meetings with the key players, and more generally, in understanding the issues of Georgia with regard to issues of POPs waste management and local governance.

This included in particular the collection and literature review of available documents. This phase, with a total of 3 days, leads to start the consultation phase and field evaluation.

1.3.2. Field mission: consultations and analysis of first results of the final evaluation (steps 3 and 4)

Based on the established action plan and following preparation steps of the mission, the steps on the field serve to consult all stakeholders in the project and to integrate the various elements useful in the formulation of recommendations as to assistance and development needs in the area of the evaluated project. This phase thus involves:

- Meeting with the PMU and UNDP
- Interviewing the project stakeholders
- Debriefing the PMU and UNDP

Once all the elements are gathered and analyzed, begins the completion phase of the final evaluation report.

1.3.3. Completion of report (steps 5 and 6)

Report completion steps were finalized in two stages: i) the presentation of the first results of the evaluation in a draft document, including the results based on the usual evaluation criteria, and ii) after taking into account comments / notes, etc., transmission of the final report.

The final evaluation was conducted in accordance with the guidelines, rules and procedures established by the UNDP and the GEF as indicated by UNDP evaluation guidelines for projects financed by the GEF[2]. The report contents comply with the terms of reference indicated in annex 5.4.

[2] http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf

2. Project description and development context

2.1. Project inception and planned duration

As mentioned above, the project was planned to start as from September 2011. However, given that the signature of the project document by the Government of Georgia and UNDP has been delayed because of a newly introduced clearance procedure, the GEF financing has only been accessible as from February 2012 (that is, when the agreement was signed). Meanwhile, the UNDP has been able to start the first implementations of the project on time (by designating the PM, for instance) under TRAC funds. This temporary delay has not been an obstacle for the project to start on time and to continue efficiently when the prodoc was signed.

Eventually, the planned duration of 3 years has been respected since the last measures taken in the fields took place in the end of 2014.

2.2. Problems the project sought to address

Tackling the issue of POPs accumulation by destructing them soundly in a first time and improve the legal and technical management of them in a second time will help serving several purposes from the Georgian government and the UNDP. POPs pesticides elimination will sizably reduce human and ecosystems exposure to hazardous chemicals products, resulting in an improved health and biodiversity. At a larger scale, it will improve the global quality of environment and given that sustainable environment is considered as one of the major disaster risk reduction factors, such an implementation will help reducing disaster risks, especially focusing on natural resources.

2.3. Short and long term objectives of the project

The objectives of the project can be grouped into two categories: first, the concrete objectives that are immediately resulting from the implementation of project activities in targeted areas; second, longer-term goals representing the desired overall benefits for the development of Georgia, and reinforced by the project actions and impacts. These objectives were:

On the short term:

- Developing and implementing an integrated legislative framework and institutional system to prevent POPs impact on human health and environment;
- Ensuring reduction of POPs pollution and clean-up of POPs polluted sites;
- Preventing of formation of new POPs sources.

On the long term:

- Protecting the global health level of Georgian population
- Ensure sustainable development and biodiversity

2.4. Baseline indicators established

Project Objective: To minimize releases of POPs from obsolete pesticide stockpiles in Georgia and create capacity in management of the POPs pesticide stockpile

- Obsolete pesticide dumpsite at Iagluja containing approximately 400 tons of non-soil mixed obsolete pesticides disposed to the site from Soviet period: 230 tons packed and labeled obsolete pesticides, part of which are about 180-190 tons of pesticides, and 1,700 tons soil-mixed obsolete pesticides

Outcome 1: Legal and administrative capacity strengthened

- No specific hazardous waste legislation exists;
- Absence of technical guidelines and by laws;
- Government institutions and staff remain untrained

Outcome 2: Minimization of releases from obsolete pesticide dumps

- No site remediation plan exists, no detailed information on pesticide stockpile (especially at Iagluja dumpsite) is available;
- Non-soil mixed part of stockpile left in the dumpsite;
- No access to control measures exists or is in place;
- Non-soil mixed POPs pesticides left at the dumpsite

Outcome 3: To establish project monitoring, accumulation and dissemination of lessons learnt

- No monitoring and Evaluation system;
- No evaluation of project outputs and outcomes

2.5. Main stakeholders

The project is funded by the **GEF and UNDP**. **UNDP** is the GEF Implementing Agency.

2.5.1. Review of the key stakeholders

The project document gives very general picture of the possible stakeholders that could be involved in the project. It identifies national and local agencies (MENRP, MOA and Marneuli Local Municipality) as the main partners/beneficiaries. Other stakeholders are just listed in groups, categorized as: Academia, NGOs, private local and international companies dealing with hazardous wastes and general public. The detailed stakeholder analysis is absent. However, during project implementation phase, project management unit made a mapping of the sister projects and all the possible interested actors dealing with hazardous waste. PMU identified additional governmental agencies as stakeholders of the project, which includes: 1. National Environmental Agency, 2. Ministry of Economy and Sustainable Development of Georgia, 3. Ministry of Health, Labour and Social Affairs of Georgia, 4, Ministry of Internal Affairs of Georgia/Emergency Management Department, 5. Ministry of Finance of Georgia/Customs Department, 6. Ministry of Regional Development and Infrastructure of Georgia/ Solid Waste Management Company of Georgia, 7. Tbilisi City Hall/LTD Service for Waste Management. It seems that besides governmental agencies, stakeholders dealing with management of the hazardous waste is not very broad and is limited to several NGOs (Green's Movement, CENN, REC Caucasus), one research institution, Institute of Labor Medicine and Ecology, (which apparently was quiet strong back in soviet times, but currently it operates in the almost ruined building with limited human or material resources. However, it

possess very good expertise and strong institutional memory), and other ongoing initiatives (FAO project on pesticides, Twinning project on waste, etc).

Below there are the main stakeholders engaged in the project.

The **Ministry of Environment and Natural Resources Protection of Georgia** is a central project implementation institution being both the project coordinating and implementing/executing agency. It includes the Waste and Chemical Substance Management Division and the LEPL National Environment Agency.

Marneuli municipality is the principal project partner and is directly involved in the project. It undertakes activities related to obsolete pesticide extraction and implementation of low-cost site protection measures.

The **Ministry of Agriculture of Georgia** brings its contribution to development of POPs pesticides legal basis and technical guidelines by bringing in experience from government's effort in safe pesticides use and capacity building projects. Within the Ministry, the key focal point is the National Food Authority (NFA).

Technical advice is provided by **academic institutions** on issues related to development of long-term management plan for Iagluja dumpsite.

NGOs help to maintain the link between Ministry of Environment and Natural Resources Protection as a project implementing agency and general public. The main involved NGOs were the Caucasus Environmental NGO Network (CENN)[3] and the Greens Movement[4].

2.5.2. Results from the consultation of the stakeholders through interviews

The PMU managed to engage all identified stakeholders during the planning and implementation of the project. All the interviewed actors stated that the process was fully transparent, participatory, inclusive and effective. The TE process confirmed that the PMU managed to mobilize and cooperate with all the stakeholders dealing with hazardous waste management. A positive and productive partnership has been established among the Government, NGOs, PEB members, contractors, and donors. This has been concretized in terms of willingness to actively participate in planning the project activities, provide expertise and timely feedback on project deliverables, monitoring field works, etc.

A very positive partnership was established with the local municipality of Marneuli. According to interviews and the observations from the TE, the local municipality was very actively engaged in both planning and implementation of the project. The territory of the Iagluja dumpsite (4 ha) was fenced, warning signs installed, access control secured and drainage ditches restored. All works were carried out through successful cooperation with the Marneuli Municipality (through co-financing), and under the supervision of UNDP personnel, and sub-contracted civil engineers to ensure the compliance of the achievements with original plans.

The evaluation observed that very mindful and effective synergies were made with the EU Twinning project (see below for more information about this project). The latest was engaged in the development of the framework law on waste in Georgia. This project based its work on the gap analysis of the environmental legislation related to chemicals and hazardous waste

[3] http://w3.cenn.org/wssl/
[4] http://www.greens.ge/

management done by the GEF project (delivered by REC Caucasus). The EU was the main co-financing partner for the overall initiative and this co-financing is increasingly required for any future GEF funded project[5]. The recommendations and technical guidelines on POPs were embedded into the framework regulatory system on waste management in Georgia.

Collaboration with other concerned Ministries/Departments (e.g. Ministry of Health, Ministry of Regional Development and Infrastructure, NEA, Emergency Department, etc.) was not limited to simple consultations but took the form of intensive trainings on hazardous waste management, and awareness raising campaigns, training and media coverage that targeted a broader public (local communities, general public). Stakeholders noted that those activities prove to have positive influence on the broader public. However all of them recognized that more awareness raising campaigns and discussions with local communities are needed.

Overall, the evaluation concludes that all the stakeholders were adequately involved in the project, including governmental institutions, state-owned and private companies, local municipalities, and NGOs.

Additionally, the detailed stakeholders' mapping done for the remediation at Iagluja Mountain dumpsite[6] is a significant added value from the project. It contributes to the sustainability of the project results and supports the Government in its efforts to improve the quality of environment.

2.6. Expected results

The expected project outcomes are grouped into three main components which have been detailed in Section 2.4. above and are summarized as follows:

- Legal and administrative capacity strengthened;
- Minimization of releases from obsolete pesticide dumps;
- Established project monitoring, accumulation and dissemination of lessons learnt.

The detail of project outcomes and results is presented in the project logical framework in annex 5.3 of this document.

[5] https://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.C.46.09_Co-Financing_Policy_May_6_2014.pdf
[6] This deliverable was produced out of the scope of the projects, based on the savings made by the PMU.

3. Findings

3.1. Project design and formulation

3.1.1. Analysis of logical framework and results

The logical framework of the project and its results is presented in annex 5.3 of this document.

The structure defined by the project document is reliable, since it is based on a logical division between a technical component (component 1), a political component (component 2) and a capacity building component (component 3), with a fourth transverse component dedicated to the management and the effective implementation of the project.

This project has led to very positive results, since the prior objectives defined at the beginning have been met. In particular, given the threat laguja dumpsite was posing to human health and to the environment, there was an urgent need to dispose of the POPs accumulated in the dumpsite. Therefore, technical and financial means have been deployed to efficiently achieve this goal, by eliminating in an environmentally friendly way a significant part of non-soil mixed obsolete pesticides (230 tons).

3.1.2. Stakeholder participation planning

The **Ministry of Environment and Natural Resources Protection of Georgia** has been the central project implementation institution being both the project coordinating and implementing/executing agency.

NEA[7] has led the first overall assessment of the state of lagluja dumpsite. After having collected the data required in the field, their proposal consisted in transferring all wastes to a better engineered landfill on the same slope. Despite the Ministry of Environment first agreement, this proposal has not been implemented given the limited budget and the Stockholm Convention objectives to limit POPs waste spread in the environment by destroying them rather than collecting them. NEA was selected through a competitive process, and contracted to undertake a technical study at the beginning of the project.

RECETOX[8] is an independent department that carries out studies in the field of environmental contamination. Experts from this research center have been sub-contracted by NEA to do the first assessment of lagluja dumpsite.

Tauw, an environment consulting company, has been a key stakeholder regarding the other assessments that have been made during the global duration of the project, as well as essential recommendations and plans submitted for the different stages of the project and the next years. It has carried out a comprehensive assessment of the dumpsite that should lay out the directions of any future project. As for NEA, Tauw was selected through a competitive process. The deliverable led to the formulation of 4 scenarios for a second phase after project completion.

REC has virtually tackled the overall first outcome of the project, which consists in dealing with legal components of pesticides wastes management. REC was also selected through a competitive process.

The NGOs **CENN** and **Greens Movement** have enabled the link between the public and the implementing stakeholders, especially by providing public awareness activities. They have

[7] http://www.nea.org
[8] http://www.recetox.muni.cz/index-en.php

actively participated in the PEB: they have been invited by the PEB at the inception phase and have been part of PEB by among others participating to all the meetings.

Polyeco, a waste management and valorization industry has achieved a major part of the field technical work that consisted in re-packaging the wastes and exporting them to French and Belgium appropriate waste treatment plants, and filling the pools. Polyeco was selected through a competitive process.

3.1.3. Replication approach

Replication potential of this project is substantial not only regionally (Caucasus region in particular, also other former republics of the Soviet Union), where countries are currently seeking to implement similar measures and the replication effect could be most significant, but actually in any country where obsolete pesticide stockpiles have been identified and are to be eliminated in environmentally sound manner. So lessons learned from the project implementation potentially could be of good value to many countries.

Moreover, as mentioned before, a second part for this project may be undertaken at Iagluja dumpsite and will very probably involve other dumpsites. Apart from this aspect that may foster the replicability at national level, it is noteworthy that the project design does not provide for replication in regions outside Georgia.

3.1.4. Links between the project and other interventions in the region

The three following projects have objectives strongly related to the present project. The two first projects are not specifically linked to it, despite having several common objectives. Nevertheless, the third project is considered as a twinning project: it has specific common objectives and contributes to a part of this project financing.

Demonstrating and Scaling Up Sustainable Alternatives to DDT for the Control of Vector-borne Diseases in Southern Caucasus and Central Asia (GEF ID 3614)[9]

This project led in three countries (Georgia, Tajikistan and Kyrgyzstan) is actually part of a worldwide project, the Global DSSA Programme (Demonstrating and Scaling-up of Sustainable Alternatives to DDT in Vector Management Global Programme), which consists of 10 projects implemented as from 2003 in different regions of the world. The Global Programme aims at the protection of human health and the environment through the reduction of emission of DDT into the global environment by means of decreasing the use of DDT through introduction, demonstration and scaling-up of sustainable alternatives to DDT in disease vector management.

This Global Programme has been headed across several regions of the world by the WHO/UNEP Inter-Agency Partnership. In total, they have co-funded 45.9 million USD, with a contribution from GEF to the Programme estimated at about 32.4 million USD.

For the particular case of Georgia, Tajikistan and Kyrgyzstan before the project, it had been reported an accumulated illegal DDT application in both health and agricultural sector and potential of DDT use in vector control; an aggregate yearly DDT use average for the three countries had been estimated at 150 ton/year. At the end of the project (2014), there were no DDT application in vector management and no risk of reverting to DDT application in all project countries through consolidation of IVM approach and through the selected safeguarding of currently unmanaged DDT stockpiles. Therefore, the expected DDT application reduction was of 150 ton/year.

[9] http://www.thegef.org/gef/project_detail?projID=3614

Improved Pesticides and Chemicals Management in the Former Soviet Union (EU/FAO)

For now two years, this project has aimed to foster the development capacity linked to the improved management of obsolete pesticides and hazardous waste and to help countries in question to improve by themselves the management of new pesticides by providing them technical and policy supports. FAO and EU had teamed up to lead this project across the former Soviet Union countries, in particular in Georgia. To this end, the EU has allocated €6 million and the FAO acts as the implementing stakeholder. The project activities focus on supporting the implementation of the FAO Code of Conduct on Pesticide Management and the activities of the Rotterdam Convention in the region. The project also promotes convergence to EU standards in terms of legislation and regulations in key areas linked to waste management and agriculture.

In general, this project has enabled to complete a regional training on the development of Environmental Assessment and Environmental Management Plans, and particularly in Georgia, to develop plans for completions of national inventories in the first quarter of 2014.

Twinning Project: "Strengthening the Capacity of the Ministry of Environment Protection in the Field of Waste and Hazardous Substances Management and Improving the Environmental Conditions in Georgia"

This project has been implemented and funded but the European Union. While applying for being part of the EU, Georgia is updating its law and, like for the project described above, try to converge to EU standards in terms of legislation especially here in the field of chemicals wastes management. The overall objective is to strengthen the capacity of the Ministry of Environment Protection in the field of waste and hazardous substances management and improving the environmental conditions in Georgia.

The intended outcomes are:

- Improvement of MoENRP's institutional structure aiming efficient management of solid waste and hazardous substance handling;
- Building of appropriate capacities of the Beneficiary and key stakeholders to improve solid waste and hazardous substance management;
- Development of a framework for waste and hazardous substances management : National waste strategy, national waste management plan, waste classification system and waste catalogue;
- Development and implementation of relevant environmental legislation and harmonization with relevant EU laws and international standards

It is noteworthy that the Outcome 1 of our project in question has been used as an output for this twining project. It has afterwards resulted in a framework law of waste that has just been voted.

3.1.5. Management

The following section describes how management arrangements were implemented and demonstrates that this structure has been a factor of success for the achievement of the project's objectives. The execution of the project has been led by the Ministry of Environment and Natural Resources Protection, which has made efficient responsible structures available or this project, such as the Waste and Chemicals Management Division within the Service of Wastes and Chemical Management and the nomination of a National Project Director. Moreover, separated units are put in place for management, through the Project Management Unit, and for execution, through the Project Executive Board, of the project. This has ensured that the required tasks have been properly fulfilled during the project implementation.

The project has been executed by the Ministry of Environment and Natural Resources Protection through the Service of wastes and Chemical Management, which is responsible for developing and implementing waste management policies, including POPs policies in Georgia. In order to perform these functions the Department has a special Waste and Chemicals Management Division. The Ministry has assigned a National Project Director (NPD) responsible for implementation of the project as well as for the achievement of the overall project outputs. The NPD is a senior/mid-level official from the Ministry of Environment and Natural Recourses Protection, but is ultimately accountable to the Project Executive Board for the overall progress on project implementation.

A Project Management Unit (PMU) has been created and has been composed of a Project Manager (PM) and an Assistant. The PMU has been in charge of project day-to-day management. The PM provides overall supervision and direction for project activities with responsibility for reporting on progress.

The Project Executive Board (PEB) has directed the project and has been the ultimate decision-maker for it. It has ensured that the project remains on course to deliver the desired outcomes of the required quality. The PEB has made management decisions for the project when guidance was required by the Project Manager or when project tolerances have been exceeded. More specifically, the PEB has set up tolerance levels for project stages in terms of duration and disbursement of financial resources. The PEB has reviewed and cleared Annual Work Plans (AWP) and annual progress achieved by the project through Annual Project Reviews based on the approved annual work plans. The Annual Workplan and the budget revisions have been sent to the UNDP Regional Center in Turkey for clearance by the Regional Technical Advisor on chemicals. It reviewed and approved project stage (quarterly) plans and authorized any major deviation from these agreed stage plans. The PEB is the authority that signs off on the completion of each stage plan as well as authorizes the start of the next stage plan. It has ensured that required resources are committed, has arbitrated any conflicts within the project or negotiate a solution to any problems between the project and external bodies. The PEB has met on a quarterly basis (more often if required). Prior to the quarterly meetings, the PM has duly submitted the progress report on the previous period and the plan for the next one. The PEB has evaluated submitted documents and has been in charge of approving plans and budgets.

The PEB was composed of the Executive, Senior User and Senior Supplier components. The Executive is ultimately responsible for the project, supported by the Senior User/Beneficiary and Senior Supplier.

The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its outputs. The Executive has to ensure that the project has a cost-conscious approach, balancing the demands of the user (or beneficiary) and supplier. For the project purposes, the Ministry of Environment and Natural Recourses Protection, its National Project Director assumed the Executive Role in the Board.

The Senior User/Beneficiary is responsible for specification of the needs of all those who will be primarily using or benefiting from the project outputs, for user liaison with the project team and for monitoring that the solution has met those needs. The Senior User role commits user resources and monitors project outputs against agreed requirements. Representatives of The Department of International Relations and Environmental Policy Department and relevant Municipal services has represented the Senior User in the PEB.

The Senior Supplier represents the interests of those committing resources either financial or human to the project. The Senior Supplier is accountable for the quality of the outputs delivered by the supplier(s). The Senior Supplier role must have the authority to commit or acquire supplier resources required. UNDP Assistant Resident Representative represents the senior supplier role together the Head of the Integrated Environmental Management of

the Ministry of Environment and Natural resources Protection and the Heads of the local Municipalities supported by other major project co-financier donors/donor programme, including EU Twinning programme, etc.

Project Assurance – this is one of the key roles in the project management structure. The Project Assurance acts as an independent and objective quality monitoring agent, avoiding the potential "self-serving bias". In addition, the project assurance verifies the products' or outputs' quality. The Regional Technical Advisor for Chemicals at the UNDP Istanbul Regional Center, Georgia UNDP Energy and Environment Team Leader and Programme Associate has played the Project Assurance role.

For development of relevant regulations for POP pesticides, trainings and site assessments UNDP has outsourced the contract to either individual company or a consortia of companies.

Communications

The NPD and the PMU have communicated with a variety of audiences and have been in charge of keeping the stakeholders informed of the progress overall and on the most important project events. Further, they have been responsible for building and sustaining the Ministry's commitment to the project and the involvement of project stakeholders. To do this, the Ministry of Environment and Natural Resources Protection and the PMU has developed a communications strategy. They have maintained a high level of transparency and openness throughout the project implementation. The PMU and the Ministry have prepared promotional materials which has born the logos of all project partners. The same standard has also applied for all other written materials and publications and has also applied to all public events.

Financial and other procedures

Payments were performed primarily through direct payments. A letter of agreement will be signed between the Ministry of Environment and Natural Resources Protection and UNDP CO outlining the support services that UNDP will provide to the executing agency during the project implementation. The NPD will authorize the payments to be made on the basis of the budget approved by PEB. During absence of the NPD, the Project Manager will be authorized to process such transactions. UNDP will provide support services as agreed between the parties and set out in the standard service agreement letter between the APA and UNDP. Granting external access to ATLAS system to the project personnel will be part of the standard service agreement.

In accordance with standard UNDP procedures, all resources/equipment gained through project support remains the property of UNDP until project closure when a decision will be taken as to how to dispose of these resources. It is standard practice to leave resources with the implementing partner after project closure as a contribution to the development of national capacity.

In order to accord proper acknowledgement to GEF for providing funding, a GEF should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF.

3.2. Project implementation

3.2.1. Adaptive management

The project management has generally proved to be highly adaptive and has consequently been a driving force for the overall project. For instance, the results of the NEA study have led to replace POPs wastes in a safer and better engineered site on the same slope. However, the discussion with the UNDP has allowed a consensus between the stakeholders that has been profitable for the achievement of the objectives, by involving a POPs waste disposal abroad to remove concentrated source. Indeed, the NEA has accepted to keep on the primary objectives of the project document that consisted in exporting the wastes to Europe, rather than treating them locally.

Apart from this agreement done at the beginning of the project, no significant changes to the project design and project outputs have been done afterwards.

3.2.2. Partnerships

Partnerships with research organizations

Ecology Institute has been involved in the project, especially through the assessment of the impacts of pesticides on human health (particularly through mother milk, etc.) in partnership with WHO.

By completing the first evaluation of the Iagluja dumpsite shape, NEA has also importantly contributed to the project.

Partnerships with local communities, regions, districts, chief towns of districts and municipalities

Local communities have been particularly involved in the project implementation, given that the Marneuli Municipality was the principal project partner.

3.2.3. Integration of M&E in adaptive management

Monitoring and Evaluation of this project has been led efficiently during the overall implementation of the project. Given this project's size, no mid-term review has been carried out during the activities, but the stakeholders involved have proved to be autonomous by having efficiently undertaken measures to lead them correctly. In particular, at the very beginning of the project, a study led by NEA has suggested taking up the POPs pesticides wastes directly in Georgia, but it was preferable to export them to Europe (since the infrastructures are more suitable for their treatment). Consequently, the overall stakeholders have proved to be able to make an adaptive management and to coordinate themselves concerning this kind of decisions.

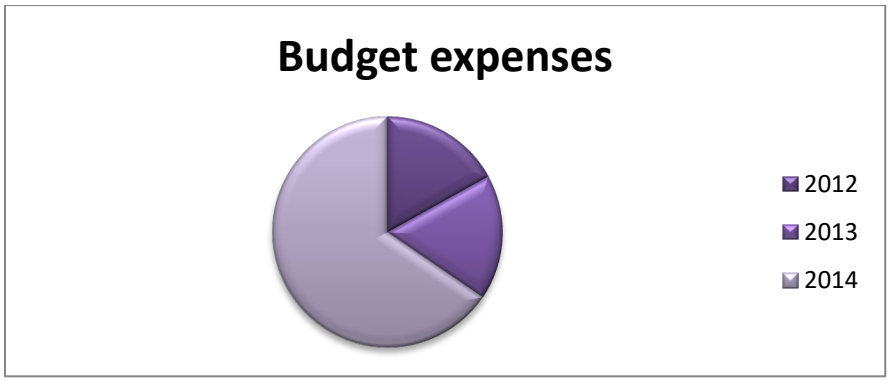
3.2.4. Project financing

The budget planned for this project in the Project Document is as followed:

Total budget	**US $ 3,141,080**
Allocated resources	
Regular	US $ 150,000
GEF	US $ 1,000,000
In-kind contributions	
Central Government	US $ 240,400
Central Government/EU-Twinning	US $ 1,700,680
Local Municipality	US $ 50,000

The total expenditure from January 2012 to December 2014 for this project was 1,079,276.54 USD, for which GEF contribution amounts to 957,990.92 USD.

Year	Budget	Percentage	GEF contribution
2012	183,327.9	16.98%	110,039.05
2013	189,256.8	17.53%	151,222.68
2014	706,691.84	65.48%	696,729.19
TOTAL	**1,079,276.54**		959,990.92



The major expenditure has concerned shipment, for which 443,700.00 USD have been spent in 2014, that is, during the major implementing part of the project. In the same period, 128,254.34 USD have been invested for services for co-construction and engineer.

3.2.5. Monitoring and evaluation: initial design and implementation

Initial design and implementation have been efficient and have seriously contributed to achieve the objectives of the overall project.

Project monitoring and evaluation has been conducted in accordance with established UNDP and GEF procedures by the project team and the UNDP Country Office (UNDP-CO) with a support of MPU/Chemicals Unit in Bratislava. The Logical Framework Matrix has provided impact and outcome indicators for project implementation along with their corresponding means of verification.

The M&E plan and reporting requirements include: inception workshop and inception report, regular interim and annual project reviews by a project executive board, project implementation reviews, short quarterly operational reports for GEF submission and detailed quarterly progress reports in UNDP format, including financial reports, both mid-term and final evaluations, project terminal report. The principal components of the M&E Plan and the indicative cost estimates related to M&E activities are outlined below. The project's M&E Plan has been presented and finalized at the project's inception workshop following a collective fine-tuning of indicators, means of verification and the full definition of project staff M&E responsibilities.

Type of M&E activity	Responsible Parties	Budget US$	Time frame
Inception Workshop	Project executive, Project Management Unit (PMU)	None from GEF funds	Within first three months of project start up
Inception Report	PMU & Project Executive, UNDP CO	None	Immediately following IW
APR/PIR	PMU, Project Executive UNDP CO, RCU	None	Annually (August-September)
Quarterly progress reports	PMU, Project Executive UNDP CO	None	Calendar Quarterly
Annual progress reports	PMU, Project Executive UNDP CO	None	End of calendar year
Project Executive Board Meetings	Project Executive, PMU	None from GEF funds	Following Project IW and subsequently on a quarterly basis
Annual Project Reviews	PMU & Project Executive PEB	None	Annually
Technical reports	PMU, consultants	None	To be determined by Project team
Final Evaluation	UNDP-CO UNDP-GEF RCU External Consultants	US$8,945[10]	At the end of project implementation
Terminal Report with lessons learned	PMU, Project Executive UNDP-CO	None	At least one month before project end
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	PMU UNDP CO Project Executive and other stakeholders	None from GEF budget. US$ 8,840 from UNDP portion of funds; US$ 10,240 from Government funds, in-kind	At least on a bi-monthly basis
Audit	UNDP-CO Project team	None (cost in PM Budget)	Annual
TOTAL COST		US$8,945 GEF US$8,840 UNDP US$10,240 GoG in-kind	

3.2.6. Coordination between UNDP, implementing partner and executing partner

As the example of the discussion between the UNDP and the NEA shows, concerning the results obtained after the first evaluation of the dumpsite, it has been possible to reach a consensus between two stakeholders even for decisions that concerned a major point in the project. Therefore, the coordination between UNDP, implementing partners and executing partners has proved to be very satisfactory and helped the project to achieve the objectives.

[10] Including DSA for 5 days of stay in Georgia and travel to and out of Georgia for M&E consultant

3.2.7. Assumptions and risks

Risk	Level	Measures for risk mitigation
Political instability with potential policy shift and staff turnover in the Ministry of Environment and Natural Resources Protection	Low	The project ensured a close and adequate contact with key decision makers on the important objectives of the project. Further, the project steering structures included a broad gathering of key line ministries for ensuring the approval of technical staff influencing political decisions.
Fluctuation in exchange rates may stretch the disposal budget	Medium	Application of phased disposal strategy helped to report success at early stages. This facilitated securing of further resources in case the currency fluctuations disturb budgetary control.
Existing data on obsolete pesticide volume in the Iagluja dumpsite is significantly under-estimated and project funding inadequate to extract and eliminate amount of POPs pesticides specified upon investigation of volume of non-soil mixed pesticides at Iagluja dumpsite	Medium	Investigation into the Iagluja dumpsite was done at the earliest possible project stage to specify the exact amount of non-soil mixed pesticides. Risk is considered medium since current knowledge on pesticide amount is based on expert's judgment, not measurements. The risk of underestimated waste was not envisaged enough by the project team and an important and unexpected amount of waste had got mixed with time with other materials and collapsed concrete walls. Therefore, the project's budget was not sufficient to handle the whole site.
Releases and exposure of POPs pesticides during re-packaging, storage and transport stages of the project	Low	Internationally recognized standards (Basel convention guidelines, FAO guidelines, UN Orange Book, EU ADR, IMDG) have been followed during re-packaging, storage and transportation phases. This was ensured by proper training and supervision by international experts and experienced local experts
Low cost measures at the Iagluja site are not sufficient for minimizing general public's exposure to POPs from the site	Low	The planned investigation into the site was done at the earliest possible stage to ensure time for appropriate response to increased environmental and human exposure. Risk is not considered high as dumpsite is located in a remote area with favorable geological conditions.
Standards specified in the project are not adhered to during project implementation	Low	Independent monitoring was utilized during the project to ensure that international standards are adhered to.
Overall rating	**Medium**	

3.3. Project results

The results of the evaluation of the project are based on the stakeholder consultations and review of the literature. In parallel with these consultations, the evaluation focused on the analysis of results as deliverables, based notably on the 2012 project document.

3.3.1. Overall results

The overall results are highly satisfactory since the primary objectives provided by the project documents have been achieved. In total, 230 tons of pesticides wastes have been exported and destroyed in France and Belgium, emptied lagoons were buried with 10 sarcophagi filled by all the wastes remaining on the dumpsite. The outcome is that this project has proved an environmentally-friendly and sound waste management that could lead to efficient POPs wastes managements in the region for the future. Despite this very efficient work, an important amount of underestimated wastes, especially non-soil mixed pesticides, had not been taken up during the project.

Review of main project results

Highly satisfactory

The study of available documents, interviews with stakeholders and visits to the project target municipalities have helped to highlight the following results in terms of success and failure of activities implemented by the project.

The primary objectives of withdrawing 230 tons of pesticides wastes and burying emptied lagoons have been achieved. However, given that an unexpected amount of non-soil mixed pesticides have not been taken up by the project (mainly because of budget restrictions), the overall objective of cleaning up the Iagluja dumpsite of POPs pesticides wastes has only been partially achieved.

Success factors and obstacles

The project has been overall highly satisfactory thanks to a very effective management and implementing partnerships. Indeed, the project team and executing partners such as NEA has proved to be adaptive to any changes or recommendations from other stakeholders.

The project implementation has not faced any major obstacle to achieve the objectives. One of the small obstacles that have been rapidly overcome was to decide whether the POPs pesticides waste had to be treated within Georgia or Europe (eventually, they have been exported to Europe). The primary objectives have been achieved but unexpected amount of other pesticides has been discovered during the implementation of the project and has not been taken up because of budget restrictions.

3.3.2. Relevance

*The project has been assessed as being **relevant.***

According to the criteria of the GEF, the project's relevance is the extent to which the project is consistent with GEF operational programs or strategic priorities under which the project was financed; and the extent to which its activities are adapted to local and national development priorities and organizational policies, including changes over time.

Given that pesticides wastes management is in the core of the priorities in Georgia, the relevance of the project is obvious. National Environmental Action Plan for Georgia (2012) in its targets and measures identified as a priority to “Undertake a study/assessment of hazardous substances disposed at the Iagluja burial, packing and temporary storage/export

of waste, containing persistent organic pollutants for the safe treatment; Temporary conservation of the Iagluja burial (fencing, construction drainage pits, covering the open areas with the soil layer)" made possible to export POPs pesticides wastes to Europe.

Indeed, dumpsites like the one in Iagluja Mountain poses a serious threat to the environment and human health; for instance, Iagluja Mountain is composed of many pasturelands from which the cattle could access the dumpsite and drink in the pools plenty of pesticides. The issue of the disposal of these wastes still needs to be tackled at the country scale, but such a project has enabled the Georgian government to experience an efficient project management in order to clean up a hazardous dumpsite as well as the legal aspects. Therefore, given the need for a cleaner and sounder pesticides management, especially through Georgia's agreement with the Stockholm Convention and the POPs National Implementation Plan for Georgia, this project has undeniably proofed to be particularly relevant.

3.3.3. Effectiveness

Highly satisfactory

According to the criteria of the GEF, the effectiveness is the extent to which the objectives of the development intervention have been achieved, or are to be, given their relative importance.

Comparing the results and the primary objectives, the project has overall proved to be effective. The first assessments made on Iagluja dumpsite have revealed a massive amount of pesticides accumulated for many years. This project has sizably improved the state of the dumpsite by withdrawing a total of 230 tons of pesticides wastes, filling the pools affected by the pesticides and burrowing 11 sarcophagi with the remaining wastes.

Finally, noticeable economies of scale have made possible by the project through synergies with the Multilateral Fund for the Implementation of the Montreal Protocol[11] to remove ODS from the site (15 tons of gas). Disposal of ODS has been made possible, since it was done at the same time than POPs disposal.

Cost-effectiveness: the project has been cost-effective since the objectives of the logical framework have been achieved without the need of additional funding during the implementation of the project. An increased budget would have been helpful to take up an additional amount of pesticides wastes that was not taken into account in the primary objectives.

3.3.4. Country ownership

With the participation of local municipalities in the project, the country has been a major stakeholder and the outcomes fitted very well to the national objectives regarding environmental and health issues.

3.3.5. Sustainability

*The overall likelihood that sustainability is not ensured in the future is **Low**.*

*Financial Resources sustainability (**the risk of not being sustainable is Moderately Low**):* Financial resources have been sufficient to successfully carry out the main activities but additional fund would have been useful to take up an unexpected amount of non-soil mixed pesticides, for instance. Given the success of this project, it is likely that other financing may be dedicated to take up related activities

[11] http://www.multilateralfund.org/

*Socio-economic sustainability (**the risk of not being sustainable is Moderately Low)**:* Increased capacity for the pesticide stockpile management will contribute indirectly to social sustainability through improvement of quality of the environment (reducing risks of POPs exposure) associated with elimination of remaining hot-spots of obsolete pesticide stockpiles in minor warehouses in future. Variety of stakeholders involved in the project – government institutions, state and private companies, local municipalities, NGOs will be directly or indirectly involved in the project. A positive message of cleaning up the environment and getting rid of the legacy of the past will be conveyed from project stakeholders to general public thus strengthening the perception of general public to government efforts in improving the quality of environment.

*Institutional framework and governance sustainability (**the risk of not being sustainable is Low)**:* The project will affect positively institutional sustainability through increased capacity of pesticide stockpile management by institutions involved in management of chemicals and hazardous waste. Raised capacity for hazardous waste management and experience gained from project realisation will furnish institutions with skills and experience necessary for future work in the field of hazardous waste management, obsolete POPs pesticide waste in particular.

*Environmental sustainability (**the risk of not being sustainable is Low)**:* direct outputs of Outcome 1 (Legal capacity building), do not include any sustainability considerations beyond typically expected ones for such activities, including political acceptance of developed amendments and changes to legal acts. For the Outcome 2 (Obsolete pesticide collection and final destruction), the sustainability issue emerges from the fact that the project will not resolve all the POPs pesticides stockpiles in the country. Therefore, it is important to underline that capacity creating in obsolete pesticides handling and destruction is of very high concern in the project design. Local pesticides management, handling and destruction capacity is essential for finishing collecting and disposing remaining POPs pesticide stockpiles in the future.

There is legislation in place that bans the import and the use of POPs pesticides in the country. Therefore, once stockpiles will become eliminated, the global environmental benefits will be sustained, provided illegal import of POPs pesticides is prevented. The project will assist the government in building capacity for eliminating main barriers preventing implementation of the current legislative and regulatory instruments thus strengthening the sustainability of project outcomes.

3.3.6. Impact

Impact refers to the extent to which the project achieved or is moving towards achieving verifiable results, particularly in terms of improvement of the ecological state of lagluja dumpsite and of other sites in Georgia concerned by the same issue, reduction of chemical substances risk, or indicators of progress in this direction.

The impact of this project will be sizeable first at the regional scale, since an important amount of pesticides and hazardous wastes in general has been withdrawn, providing a healthier environment to populations near this dumpsite. Moreover, some of the stakeholders involved in the project are seriously contemplating the possibility of implementing a second phase for this project to foster the improvements already started on this site and probably on other related sites.

By substantially improving the legal and technical framework in the field of pesticides wastes management, this project is likely to have also an impact at the national level. Given that the main implementing and executing stakeholder was the Ministry of Environment and Natural Resources Protection of Georgia, this project has been the opportunity for them to manage a project that could be replicable in another place in Georgia.

4. Conclusions, recommendations and lessons learned

Project rating table:

Criterion	Rating	Comment
Monitoring and evaluation		
Overall quality of monitoring and evaluation	S	The overall quality of monitoring and evaluation is satisfactory
Monitoring and evaluation design at pipeline entry	S	Monitoring and evaluation have been properly planned according to the criteria of UNDP and the GEF. The project document included a satisfactory schedule and budget for monitoring and evaluation.
Monitoring and evaluation Plan Implementation	S	The monitoring and evaluation carried out are satisfactory and have enabled the objectives to be met.
IA & EA Execution		
Quality of UNDP implementation	S	The project implementation has not raised any particular problem.
Quality of Execution by MoENRP	HS	The project execution has been effectively led and is hence highly satisfactory.
Overall quality of implementation and execution	HS	The partnership between UNDP and the Ministry of Environment and Natural Resource Protection of Georgia has led to highly satisfactory results, therefore the overall quality of implementation and execution is highly satisfactory.
Assessment of Outcomes		
Overall project outcome rating	HS	Virtually all the primary objectives figuring in the project document have been achieved; the field work has proved to be highly effective. Therefore, the overall project outcome is highly satisfactory.
Relevance	R	Given the current situation of obsolete POPs in Georgia, there was a real need for improvements in pesticides management and for cleaning up such a hazardous dumpsite.
Effectiveness	HS	Despite the delay for the project document's signature due to the new governmental clearance procedure, there has been no delay observed for the beginning of the project as well as for the end.
Efficiency	S	Financial and human resources involved in the project have been used in an efficient manner.
Sustainability		
Financial resources	ML	Financial resources have been sufficient to successfully carry out the main activities but additional fund would have been useful to take up an unexpected amount of non-soil mixed pesticides, for instance. Given the success of this project, it is likely that other financing may be dedicated to take up related activities
Socioeconomic	ML	The socioeconomic context has been moderately satisfactory; it has participated marginally to reach the

		objectives and should be favorable after the end of the project.
Institutional framework and governance	L	The institutional framework has fostered the implementation of the activities and should foster the sustainability of this project.
Environmental	L	The project has taken into account the expected pesticides management for the future so as to limit cases like Iagluja dumpsite; therefore, the environmental sustainability is high and the risk that this sustainability is not preserved is low.
Overall likelihood of sustainability	L	The sustainability of the project is satisfactory since the outcomes allow a sound management of pesticides wastes, and the project may be pursued in the future.

The **main results** of the evaluation of the project are:

1) The project has been led quite efficiently, since for instance 230 tons of pesticides wastes have been extracted from Iagluja dumpsite to be exported to Europe where they have been soundly destroyed. In addition, hazardous pools containing pesticides have been filled and the remaining wastes have been buried in 10 sarcophagi.
2) Substantial improvements have been put in place regarding legal aspects and the project has enabled a better understanding of general pesticides wastes management in Georgian institutions.
3) Noticeable economies of scale have made possible by the project through synergies with the Multilateral Fund for the Implementation of pilot demonstration ODS Destruction project Disposal of 1,5 tons of ODS has been made possible, since it was done at the same time than POPs disposal.

Lessons	Recommendations
Pesticides wastes management is a high priority in Georgia. Despite the lack of comprehensive preparatory studies on what could be in the dumpsite, the first assessment made by NEA has revealed an important amount of hazardous chemical products that pose a serious threat to local population and, given the issue replicates in other dumpsites of the country, at a wider scale to Georgian population. Therefore, undertaking efficient measures and legal reforms to improve hazardous chemicals products management is of the essence.	One should recommend for this type of projects in the future to have preparatory sub-projects related to overall studies on the sites. It will enables having proper cost estimates on how much it would cost to address them fully with pesticides extraction and solid decontamination, which represents the larger volume and amount of work.
It is essential that the positive results of the project are disseminated and shared effectively. This project has focused on a particular dumpsite on Iagluja Mountain, but the problem concerns actually the entire country and countries of the same region such as Armenia for instance.	Therefore, as it is mentioned below, tackling the issue through regional projects will be essential as well. Furthermore, given the new objectives of the GEF, the expertise used for this project can now be expanded through several similar projects.
Risks management remains a priority for UNDP. The focus regarding risks is on	This project can serve as an example for following activities within the same project

safety aspects, since this kind of project encompasses direct risks (on health for instance) and indirect risks (image…). Safety is ensured through the experience and quality of experts, the quality of consulting companies doing studies on such sites and the quality of waste management companies.	or projects related to pesticides waste management. As mentioned in the lessons learned, safety can be ensured through the involvement of different skills.

In the wake of this final evaluation, a second phase may be designed and implemented to pursue the objectives of the project that would be funded by the GEF 6th cycle and cofinancing. MoENRP has reviewed the results of the consultation done by the company Tauw with the support of the project. Indeed, the project has resulted in significant savings from the component on disposal of POPs. Therefore it has been able not only to develop a site remediation action plan, but also go further with the detailed three dimensions assessment, and costing for all possible scenarios. And Implementation of the quick start measures on Iagluja, like coverage of the sarcophaguses and tranches. 4 scenarios for the next years of Iagluja dumpsite management are considered:

- **Scenario A**: a hazardous waste storage will be built on the dumpsite to store POP pesticides from other parts of the country and from the Iagluja dumpsite. These POP pesticides will be stored temporarily awaiting final destruction.
- **Scenario B**: the site is transformed into a treatment center for the POP pesticides, other agrochemicals and the contaminated soil annex hazardous waste storage. The POP pesticides and agrochemicals will be immobilized on-site, limiting further spreading. The contaminated soils will be treated with a variety of in-situ and on-site ex-situ techniques. In this scenario the site is also used for the storage of hazardous waste to store POP pesticides from other parts of the country.
- **Scenario C**: a hazardous waste storage will be built on the dumpsite to store only POP pesticides from other parts of the country. These POP pesticides will be stored temporarily awaiting final destruction. The POP pesticides and agrochemicals present at the dumpsite will be excavated, sorted and transferred to a new to be constructed landfill on the site itself. This should ensure a long lasting containment of the contaminants.
- **Scenario D**: *(new scenario)* Iagluja dumpsite is transformed into a soil treatment center annex hazardous waste storage and landfill site. The idea is that parts of slightly to moderately POP pesticides contaminated soil (1,500 – 2,000 m3) will be remediated with a variety of in-situ and/or on-site, ex-situ soil remediation techniques. The remaining contaminated soil and the soil mixed with POP pesticides and agrochemicals will be excavated, sorted and transferred to a new to be constructed on-site landfill. It is noteworthy that this scenario has not been planned by the project but it would serve as a good example of rational use of project savings.

The expertise deployed during this project can now be applied elsewhere in a practical manner with GEF's new objectives. The case of this project in Georgia may be considered, given the remaining needs, as only the beginning of GEF funded projects dealing with dumpsite management and such studies and actions might now be fostered.

5. Annexes

5.1. Detailed timetable of the field mission

Time	Organisation/Event	Person/Position/Venue	Address	Contact
Saturday, 7 March, 2015				
10:00	Departure for the Field Visit from Tbilisi to Marneuli		Tbilisi	
12:00	Meeting with Marneuli Municipality Representative	Mr. Amiran Dekanoidze – Chief Specialist at Supervision Department, Marneuli Municipality; *Project Board Member*	Marneuli	(995) 595 415959
15:00	Meeting with Greens Movement of Georgia	Ms. Rusudan Simonidze – Co-Chair	16 Mukhadze Str.	(995) 599 532611
Monday, 9 March, 2015				
9:30	Briefing and interview with UNDP Country Office Management	Ms. Nino Antadze - Energy and Environment Team Leader Ms. Natia Natsvlishvili - Assistant Resident Representative	9 Eristavi Str.	(995) 599 093989 nino.antadze@undp.org
11:00	Meeting with the Emergency Management Agency under Ministry of Internal Affairs	Mr. Nugzar Gugeshashvili – Inspector at the Emergency Management Department Mr. Jojik Tabatadze – Chief of the Chemical, Biological, Radiological and Nuclear (CBRN) Unit	33 a Chavchavadze str.	(995) 577 287303 cepgeorgia@mia.gov.ge
13:00	Meeting with the Ministry of Environment and Nature Protection of Georgia	Mr. Alverd Chankseliani –Head of Division of Wastes and Chemical Substances Management, Department of Integrated Environmental Management *Project National Director*	6 Gulua Str.	(995) 591 819601 a.chankseliani@MoENRP.gov.ge
14:00	Meeting with the Ministry of Environment and Nature Protection of Georgia	Ms. Nino Tkhilava - Head of Department of Environmental Policy and International Relations. *GEF Focal Point*	6 Gulua Str.	995)595 119745
14:30	Meeting with Ministry of Agriculture, National Food Agency	Ms. Marina Ghvinepadze - Head of the Plant Protection Department at the National Service of Food Safety, Veterinary and Plant Protection Mr. Zurab Lipartia – Head of the Department at the Phytosanitary Department	6 Marshal Gelovani Ave.	(995) 595 223535 marina.ghvinepadze@nfa.gov.ge zurablipaartia@nfa.gov.ge
16:00	Meeting with PMU	Ms. Lali Tevzadze – Project Manager Ms. Sophio Kakauridze – Finance/Administrative Assistant	15 a Paliashvili Str.	(995) 591 701092
18:00	Meeting with Institute of Labour Medicine and Ecology	Ms. Inga Ghvineria – Head of Medico-Biological Department Ms. Manana Juruli – Expert Toxicologist	60 Aghmashenebeli Ave.	(995) 595 769843
Tuesday, 10 March, 2015				
10:00	Meeting with PMU	Ms. Lali Tevzadze – Project Manager Ms. Sophio Kakauridze – Finance/Administrative Assistant	15 a Paliashvili Str.	(995) 591 701092
11:30	National Environmental Agency (NEA)	Ms. Marina Arabidze – Head of the Environmental Pollution Monitoring Department at the NEA	150 Agmashenebeli Ave., 8th floor	(995) 599 699603 m.arabidze@yahoo.com marabidze@environment.ge

14:30	Regional Environmental Centre for the Caucasus (REC Caucasus)	Mr. Irakli Legashvili – Task Leader for the project	150 Agmashenebeli Ave., 7th floor	(995) 593 200085
18:00	FAO project – "Improved pesticides and chemicals management in the Former Soviet Union"	Ms. Khatuna Akhalaia- Expert on waste and chemicals management Eco-toxicology – Regional Consultant	Rustaveli Ave. Tbilisi Marriott	(995) 599 873687 khatuna.akhalaia@fao.org
Wednesday, 11 March, 2015				
15:00	Meeting with PMU	Ms. Lali Tevzadze – Project Manager Ms. Sophio Kakauridze – Finance/Administrative Assistant	15 a Paliashvili Str.	(995) 591 701092
Thursday, 12 March, 2015				
14:30	Debriefing with UNDP Country Office Management	Mr. Shombi Sharp -UNDP Deputy Resident Representative; Ms. Natia Natsvlishvili - Assistant Resident Representative Ms. Nino Antadze - Energy and Environment Team Leader	9 Eristavi Str.	(995 32) 2251126 nino.antadze@undp.org

5.2. List of persons interviewed

1. Ms. Nino Antadze - Energy and Environment Team Leader, UNDP Country Office, Georgia
2. Ms. Lali Tevzadze – Project Manager of the "Disposal of POPs Pesticides and Initial steps for the containment of dumped POPs pesticides in Georgia"
3. Ms. Sophio Kakauridze – Finance/Administrative Assistant at the "Disposal of POPs Pesticides and Initial steps for the containment of dumped POPs pesticides in Georgia"
4. Mr. Amiran Dekanoidze – Chief Specialist at Supervision Department, Marneuli Municipality; *Project Board Member*
5. Mr. Alverd Chankseliani –Head of Division of Wastes and Chemical Substances Management, Department of Integrated Environmental Management, Ministry of Environment and Natural Resources Protection of Georgia (MENRP), Project National Director
6. Ms. Nino Tkhilava - Head of Department of Environmental Policy and International Relations, Ministry of Environment and Natural Resources Protection of Georgia. GEF Focal Point
7. Mr. Jojik Tabatadze – Chief of the Chemical, Biological, Radiological and Nuclear (CBRN) Unit. Emergency Management Agency under the Ministry of Internal Affairs of Georgia
8. Mr. Nugzar Gugeshashvili – Inspector at the Emergency Management Department under the Ministry of Internal Affairs of Georgia
9. Mr. Zurab Lipartia – Head of the Department at the Phytosanitary Department, Ministry of Agriculture of Georgia
10. Ms. Marina Ghvinepadze - Head of the Plant Protection Department at the National Service of Food Safety, Veterinary and Plant Protection, Ministry of Agriculture of Georgia
11. Ms. Inga Ghvineria – Head of Medico-Biological Department, Institute of Labour Medicine and Ecology
12. Ms. Manana Juruli – Expert Toxicologist, Institute of Labour Medicine and Ecology
13. Ms. Marina Arabidze – Head of the Environmental Pollution Monitoring Department at the National Environmental Agency (NEA) under the MENRP[12].
14. Mr. Irakli Legashvili – Expert at Regional Environmental Centre for the Caucasus[13].
15. Ms. Khatuna Akhalaia- Expert on waste and chemicals management Eco-toxicology – Regional Consultant at FAO project – "Improved pesticides and chemicals management in the Former Soviet Union"
16. Mr. Maksim Surkov – Regional Technical Advisor, UNDP Regional Center for Europe and the Commonwealth of Independent States (CIS), Istanbul

[12] NEA performed initial assessment of the Iagluja site for the "Disposal of POPs Pesticides and Initial steps for the containment of dumped POPs pesticides in Georgia"
[13] Task Leader for the component on Legislation development under the project "Disposal of POPs Pesticides and Initial steps for the containment of dumped POPs pesticides in Georgia"

5.3. Logical framework

This project contributes to achieving the following Country Programme Outcome: **2011-2015 UNDAF Outcome(s):** UNDAF outcome 4 under thematic area 3: Disaster Risk Reduction. "Underlying disaster risk factors are reduced, focusing on sustainable environmental and natural resource management" **2011-2015 CP Output(s):** 3.2.1. Sustainable practices and instruments for the management of chemicals, land, water and biological resources demonstrated at pilot areas and up-scaled at national and/or trans-boundary levels 3.2.2. System, institutional and staff level capacities enhanced for implementation of national environmental commitments and major international agreements on climate change, biodiversity, land degradation and chemicals					
Primary applicable Key Environment and Sustainable Development Key Result Area: Mainstreaming environment and energy; 1. Strengthened capacity of local institutions to manage the environment and expand environment and energy services, especially to the poor.					
Applicable GEF Strategic Objective and Program: CHEM-1: Phase out POPs and reduce POPs releases					
Applicable GEF Expected Outcomes: 1) Country capacity built to effectively phase out and reduce releases of POPs; 2) POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner.					
Applicable GEF Outcome Indicators: 1) Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded in the POPs tracking tool. 2) Amount of obsolete pesticides, including POPs, disposed of in an environmentally sound manner; measured in tons.					
	Indicator	**Baseline**	**Targets** **End of Project**	**Source of verification**	**Risks and Assumptions**
Objective: to minimize releases of POPs from obsolete pesticide stockpiles in Georgia and create capacity in POPs pesticide stockpiles management	Risk of POPs exposure to humans and environmental releases decreased; Amount of obsolete pesticides stored at the Iagluja dumpsite eliminated in an environmentally sound way	Obsolete pesticide dumpsite at Iagluja containing app. 400 tons of non-soil mixed obsolete pesticides disposed to the site from Soviet period; 230 tons packed and labelled obsolete pesticides, part of which are about 180-190 tons of pesticides, and 2700 tons soil-mixed obsolete	Significant part (250 t) of non-soil mixed obsolete pesticides at Iagluja eliminated in an environmentally sound way; Risk of POPs exposure reduced; Obsolete pesticide handling and disposal capacity strengthened	Project reports; Government reports; Field Survey data and reports	a) No changes in government policy; b) High commitment and willingness to participate in the project and contribute to resolving of the obsolete pesticide problem from government officials; c) Research reveals no substantial changes in pesticide stockpile volume and composition at Iagluja dumpsite;

		pesticides			
Outcome 1: Legal and administrative capacity strengthened	Legal acts covering chemicals and hazardous waste legislation	No specific hazardous waste legislation exists	Legal acts covering chemicals and hazardous wastes developed	Government documentation and legal acts	a) High commitment and cooperation among involved government agencies, b) Risk of change of government or policy is immitigable
	Existence of technical guidelines and bylaws	Absence of technical guidelines	By the end of the project technical guidelines and/or bylaws prepared and endorsed by the government, disseminated to involved project stakeholders	Project reports; Government reports; Surveys	Technical guidelines are consistently applied over the course of project implementation
	Number of government entities and staff received training; Training workshops organized	Government institutions and staff remain untrained	At least one representative of relevant, involved government agencies trained in pesticide site investigation, risk assessment, management option screening and disposal options selection (Basel convention, FAO)	Project reports; Training manuals, reports	a) Knowledgeable training providers are available locally or regionally; b)Training can be mobilized timely
Outcome 2: Minimization of releases of POPs from obsolete pesticide stockpiles	Detailed information on pesticide stockpiles being stored at Iagluja dumpsite; Long-term dumpsite remediation plan; Feasible local PoPs pesticide destruction	No site remediation plan exists, no detailed information on pesticide stockpile is available	Within 12 months of the start of project implementation a long-term site remediation plan is prepared	Project reports; Long-term site management plan for remediation of the Iagluja dumpsite	No additional, previously unknown non-soil mixed obsolete pesticide stockpile revealed

	options				
	Amount of obsolete non-soil mixed POPs pesticides excavated and repackaged	Non-soil mixed part of stockpile left in the dumpsite	Within 24 months of the start of project implementation appr. 400 tons of pesticides extracted from sarcophaguses and repackaged in appropriate packaging materials and labelled.	Project reports	a) The volume and composition of non-soil mixed pesticides is not substantially different from experts estimates; b) International standards are constantly applied to minimize potential impacts on environment and human health; c) The excavation and repackaging process is supervised by independent, competent supervisor; d) No opposition to excavation works from nearby communities
	Fencing of the territory of dumpsite (4ha), installation of signs, restoration of the drainage ditch	No access control measures exist or in place	By the end of the project the territory of dumpsite is fenced, warning signs installed, access control secured, drainage ditches restored	Project reports	Access control measures provide adequate trespassing protection
	Obsolete pesticide destruction facility selected; Obsolete non-soil mixed pesticides exported abroad for destruction	Non-soil mixed POPs pesticides left at the dumpsite	By the end of project significant part of the non-soil mixed part of obsolete pesticide stockpile (app. 250 tons) exported abroad for destruction at specialized destruction facility	Project reports; Government reports	a) Price established by the tender procedure does not exceed average price for the pesticide destruction b)International standards are applied to minimize potential impacts of obsolete pesticides on environment and human health during transportation
Outcome 3. Project's results are evaluated, used in adaptive management and replicated	M&E and adaptive management applied to project in response to needs with lessons learnt extracted	No Monitoring and Evaluation system; No evaluation of project output and outcomes	a) Monitoring and Evaluation system developed; b) Final evaluation report ready in the end of project	Project document inception workshop report; Independent final evaluation report	Availability of reference material and progress reports; Cooperation of stakeholder agencies and other organizations.

5.4. Terms of reference

EVALUATOR FOR THE PROJECT FINAL EVALUATION –TEAM MEMBER

Location :	Tbilisi, with seven day in-country field visits/interviews, GEORGIA
Application Deadline :	05-Jan-15
Type of Contract :	Individual Contract
Post Level :	National Consultant
Languages Required :	English

Expected Duration of Assignment :
20 days; 7 days of which for in-country field visits/interviews

Background
The project objective is to “Minimize releases of POPs from obsolete pesticide stockpiles in Georgia and create capacity in management of the POPs pesticide stockpiles”. The project objective will directly contribute to the broader goal “support to sustainable development through elimination of POPs from the environment”.
Three principal outcomes will be used as indicators for achieving Project objective. Outcome 1 “ Legal and administrative capacity strengthened” assures that pre-conditions, such as training and improvement of legal basis necessary for project implementation and further POPs related hazardous waste management issues are met. The key outcome of the project is Outcome 2 “Minimization of releases from obsolete pesticide dumps”. This outcome ensures the biggest POPs pesticide stockpile is partly eliminated in an environmentally sound manner and further releases to the environment are minimized. The second outcome also contributes significantly to creating a local capacity in environmentally sound disposal of POPs containing wastes. The last Outcome which was designed in the project structure is to establish project monitoring, accumulation and dissemination of lessons learnt.
The project will be implemented under the national implementing modality (NIM) with the Ministry of Environment Protection of Georgia being the project implementing agency. The project duration is 3 years (2012-2014) and GEF portion of funds US$ 1 million. US$ 2.14 million is considered as co-funding both cash and in-kind from UNDP, state and local governments and EU Twinning. The total GEF project budget is US$ 4,300,000 USD.
Duties and Responsibilities

The purpose of terminal evaluation is to provide a comprehensive and systematic account of the performance of the completed project by assessing its project design, process of implementation, achievements against project objectives endorsed by the GEF including any agreed changes in the objectives during project implementation and any other results. Terminal evaluations have four complementary purposes:

* To promote accountability and transparency, and to assess and disclose levels of project accomplishments;
* To capture and synthesize lessons that may help improve the selection, design and implementation of future GEF activities as well as to suggest recommendations of replication of project successes;
* To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues;
* To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

Consultant, Team Member, will assist the Consultant, Team Leader, for the Final Evaluation and provide necessary technical support throughout the work dedicated to the project implemented in Georgia.

Assigned tasks and deliverables of Consultant, Team Member include:
* Participate in the evaluation mission;
* Collection of background materials upon request by the Team Leader;
* Provision of important inputs in developing methodologies, work plans and final Evaluation report outlines;
* Desk review of materials; providing translation during the meetings if needed;
* Assistance to the Team Leader in conducting interviews with relevant stakeholders;
* Field visit and assistance to the Team Leader in interviewing local stakeholders at project site;
* Assistance to the Team Leader in developing the first draft of the Final evaluation report (The draft will be shared with the UNDP CO and will be reviewed by RTA);
* Assistance to the Team Leader in finalization of the Final Evaluation report.

For more detailed information, please refer the ToR available at: https://www.dropbox.com/sh/k2r65ki3v60dv0d/AADIGT5ijLyYmZ7Z_ds23tl7a?dl=0.
Deliverables:
* Inception Report;
* Presentation;
* Draft Final Report;
* Final Report.

Evaluation

Individual consultants will be evaluated based on the cumulative analysis:
Individual consultants will be evaluated against combination of technical and financial criteria. Maximum obtainable score is 100, out of which the total score for technical criteria equals to 70% and for financial criteria – to 30%. Only the offerors who obtain 70% out of maximum obtainable scores of the technical criteria will be considered as qualified.
Qualified candidate will be requested to submit financial proposal.
Individual consultants not meeting any of minimum technical qualification requirements will be automatically excluded from the list for further evaluation.
Only those offerors meeting minimum qualification requirements will be further considered.
Offerors passing 70% threshold (i.e. 50 x 70% = 35 points) as a result of the desk review will be invited for an interview.
Offerors who pass 70% of maximum obtainable scores of the technical criteria (i.e. 70 x 70% = 49 points) as a result of a desk review and interviews will be considered as short-listed offerors. Short-listed offerors will be requested to submit financial proposal.
The financial proposal shall specify a total lump sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables (i.e. whether payments fall in installments or upon completion of the entire contract). Payments are based upon output, i.e. upon delivery of the services specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount (including travel, per diems, and number of anticipated working days).
Once the financials proposals are received, the proposals shall be scored using following mechanism:
Minimum offer (A) is assigned 30 points, while next offers (B, C, D, etc.) are scored as: A/B*30.
Finally, technical criteria and financial proposals are summed up and the candidate obtaining maximum points out of maximum obtainable 100 points is selected for the position.

Payment Schedule

The Consultant will be contracted under Individual Contracts (IC) for the period of 25th of January, 2015 – 16th of March, 2015 (20 consultancy days).
The payment (lump sum amount including travel, per-diems ad number of anticipated working days) will be disbursed in 3 installments:
* 10% - upon signing the contract;

* 40% - following submission and approval of the 1ST draft terminal evaluation report;
* 50% - Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report.

It is estimated that the time period for fulfillment of this assignment would not exceed 20 working days. The tasks will be performed home-based with at least one mission to Georgia. If during performance of the assignment, additional mission will be required, it will be agreed on separately.

Travel

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the IC wish to travel on a higher class he/she should do so using their own resources.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

Competencies

Core Competencies:

* Demonstrates integrity by modeling the UN's values and ethical standards;
* Promotes the vision, mission, and strategic goals of UNDP;
* Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.

Functional Competencies:

* Ability to critically analyze issues, find root-causes and suggest optimum solutions;
* Ability to interact with a wide range of partners: government and non-government officials, development agencies and etc.;
* Excellent communications and writing skills;
* Ability to lead formulation, implementation, monitoring and evaluation of projects;
* Ability to work with team.

Required Skills and Experience

Education:

* Master's or higher degree related to natural resources management and environmental science, hazardous waste and chemicals management, management of Persistent Organic Pollutants (POPs) or other related fields (minimum qualification requirement - 10 points; more than 5 years - additional 5 points).

Experience:

* At least 2 years of practical experience in a similar professional role (i.e. Consultant/ Evalua!tor for the project's Evaluation) (minimum qualification requirement - 10 points; more than 2 years - additional 5 points);
* Proved knowledge and experience in GEF M&E guidelines and procedures (15 points);
* Previous experience with results-based monitoring and evaluation methodologies;
* Working experience in/for UNDP or other international organizations is an asset.

Language:

* Fluency in English and Georgian languages.

5.5. List of reviewed documents

- **Project Document** –"Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia", 2010
- **Inception Workshop Report -** project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia", 2012 February
- **Project Implementation Review (PIR)** – 3875 of the project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia" – 2013 Annual Project Review
- **Project Implementation Review (PIR)** – 3875 of the project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia" – 2014 Annual Project Review
- **Contract Ref.: # 00076584** – Contract with "Inshaat Georgia" on the rehabilitation works for refilling and covering the sarcophaguses and tranches and installation of two run-off tranches for minimization of the POPs release on Iagluja dumpsite, Marneuli Municipality
- **REC Caucasus, 2012.** Legal and administrative capacity strengthening on hazardous waste management in Georgia.
- **Tauw, 2014.** Executive summary of the UNDP – Tauw Iagluja dumpsite project.
- **Tauw, 2014.** Emergency measures Iagluja dumpsite.
- **Tauw, 2015.** Iagluja Mountain Stakeholder Involvement Report – Phase 4.
- **Tauw, 2015.** Remediation assessment and remediation plan.
- **UNDP/GEF/MENRP, 2013.** მდგრადი ორგანული დამაბინძურებლების მართვის ძირითადი სახელმძღვანელო პრინციპები.

Minutes of meetings of the Project Executive Board:

- 1st Meeting, February 14, 2012
- 2nd Meeting, July 10, 2012
- 3rd Meeting, October 30, 2012
- 4th Meeting, February 26, 2013
- 5th Meeting, June 25, 2013
- 7th Meeting, March 5, 2014
- 8th Meeting, August 7, 2014

5.6. Questionnaire

Evaluative criteria	Questions
Relevance: How does the project relate to the main objectives of the Stockholm Convention and to the POPs pesticides management priorities at the local, regional and national levels for biodiversity conservation in Iagluja dumpsite?	
Is the project relevant to Stockholm Convention objectives?	How does the project support the Stockholm Convention objectives?
Is the project relevant to the Georgia's environment and pesticides waste management objectives?	How does the project support the environment and pesticides waste management objectives? What was the level of stakeholder participation in project design? Does the project adequately take into account the national realities, both in terms of institutional and policy framework in its design and its implementation?
Is the project internally coherent in its design?	Are there logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of resources etc)? Is the length of the project sufficient to achieve project outcomes?
Does the project provide relevant lessons and experiences for other similar projects in the future?	Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives?
Effectiveness: To what extent have/will the expected outcomes and objectives of the project been/be achieved?	
Has the project been effective in achieving the expected outcomes and objectives?	Has the project been effective in achieving its expected outcomes? 1. Legal and administrative capacity strengthened 2. Minimization of releases of POPs from obsolete pesticide stockpiles 3. Project's results are evaluated, used in adaptive management and replicated
How is risk mitigation being managed?	How well are risks, assumptions and impact drivers being managed? What was the quality of risk mitigation strategies developed? Were these sufficient?
What lessons can be drawn regarding effectiveness for other similar projects in the	What lessons have been learned from the project regarding achievement of outcomes?

future?	
Efficiency: Was the project implemented efficiently, in-line international and national norms and standards?	
How efficient are partnerships arrangements for the project?	To what extent partnerships/linkages between institutions/organizations were encouraged and supported?
What lessons can be drawn regarding efficiency for other similar projects in the future?	What lessons can be learned from the project regarding efficiency? What changes could have been made (if any) to the project in order to improve its efficiency?
Has the project been effective in achieving the expected outcomes and objectives?	Has the project been effective in achieving its expected outcomes? 1. Legal and administrative capacity strengthened 2. Minimization of releases of POPs from obsolete pesticide stockpiles 3. Project's results are evaluated, used in adaptive management and replicated
Did the project efficiently utilize local capacity in implementation?	Was an appropriate balance struck between utilization of international expertise as well as local capacity?

5.7. Evaluation consultant code of conduct agreement form

Annex 6

EVALUATION CONSULTANT CODE OF CONDUCT AGREEMENT FORM

Evaluators:

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.

Evaluation Consultant Agreement Form[34]

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

Name of Consultant: _____
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 (place)on
Signature: _____

[34] www.unevaluation.org/unegcodeofconduct

5.8. Evaluation Consultant Agreement Form

Amendment to the Individual Contract

IC No.: 2015/019

Reference is hereby made to the Individual Contract Number 2015/019(hereinafter referred to as "*the Contract*") signed on 4 February, 2015 by and between the UNITED NATIONS DEVELOPMENT PROGRAMME (hereinafter referred to as "*UNDP*"), and Mr. Alexander Borde (hereinafter referred to as "*the Individual Contractor*"), UNDP and the Individual Contractor collectively referred to as the "Parties", with respect to the performance of the assignment of International Consultant/Evaluator for the Terminal Evaluation of UNDP/GEF project "Disposal of POPs Pesticides and Initial Steps for Containment of Dumped POPs Pesticides in Georgia".

WHEREAS Mr. Alexander Borde and UNDP now wish to amend said Contract.

NOW THEREFORE, the relevant Contract is hereby being amended to read as follows:

2. Duration

This Individual Contract shall commence on **9 February, 2015**, and shall expire upon satisfactory completion of the services described above, but not later than **31 May, 2015**, unless sooner terminated in accordance with the terms of this Individual Contract. This Individual Contract is subject to the General Conditions of Contract for Individual contractors which are available on UNDP website at www.undp.org/procurement and are incorporated herein by reference in *Annex II.*

All other terms and conditions of the Contract, except as amended herein, shall remain unchanged and shall continue to be in effect.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment to the Contract.

Shombi Sharp
Deputy Resident Representative
United Nations Development Programme

Signature: _____

Date: 21.05.2015

Alexander Borde

Signature: _____

Date: _____

5.9. TE - trail

Annexed in a separate file.

5.10. TE – GEF Tracking Tool

Annexed in a separate file.

5.11. Pictures

Please follow the link below in order to download the pictures:

https://www.dropbox.com/sh/h8xf9mrlk4snqw3/AADJlR01_uWRyz-xyZ31gquUa?dl=0