

Project evaluation series

Terminal Evaluation of “Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea, Phase II” Project

GCP/ERI/014/GFF

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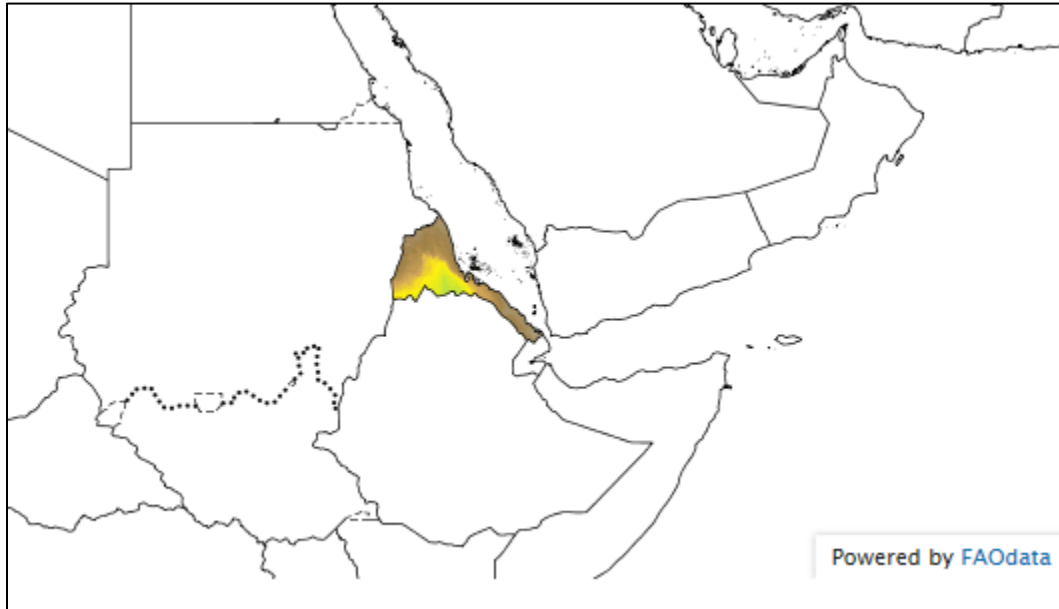
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Map of Eritrea



FAO 2019

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The evaluation benefited from the inputs of many other stakeholders, including government officers, farmers' organizations and the staff of other UN agencies, research centres and private sector. Their contributions were critical to the team's work and are deeply appreciated.

Acronyms and abbreviations

BH	Budget Holder
CBC	Climate and Environment Division
EA	Executing Agency
EMP	Environmental Management Plan
EPC	Empty Pesticide Containers
EQ	Evaluation Question
ET	Evaluation Team
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FPMIS	Field Programme Management Information System
GEF	Global Environment Facility
GCU	GEF Coordination Unit
GoE	Government of Eritrea
IA	Implementing Agency
IPM	Integrated Pest Management
LTO	Lead Technical Officer
LTU	Lead Technical Unit
MoA	Ministry of Agriculture
MoH	Ministry of Health
MoLWE	Ministry of Land Water and Environment
MTE	Mid-Term Evaluation
NIP	National Implementation Plan of the Stockholm Convention
PCU	Project Coordination Unit
PIR	Project Implementation Review
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
PPR	Project Progress Report
PSC	Project Steering Committee
PSMS	Pesticide Stock Management System
PTF	Project Task Force
QPIR	Quarterly Project Implementation Report
SDG	Sustainable Development Goals
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
TA	Technical Advisor
TCI	Investment Centre Representative

Executive summary

The Food and Agriculture Organization of the United Nations (FAO) Office of Evaluation (OED) assessed the project “Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea, Phase II”. The total value of the project was USD 5,400,000 of which GEF contributed US\$ 2,150,000 and the Government of Japan US\$ 1,500,000. The rest was co-financed by donations in cash and in kind. OED evaluated the project through the use of Theory of Change, Evaluation Questions and the required GEF evaluation criteria of Relevance, Efficiency, Effectiveness, Quality of Implementation/Execution, Quality of Monitoring and Evaluation and Sustainability.

The evaluation found that the Project is relevant to global and national efforts for reducing and eliminating risks due to pesticides. Project activities contributed to FAO’s strategic framework to increase sustainable food production and to GEF4’s focus on POPs and sound pesticide management. At national level the Project addressed priorities identified in Eritrea’s national implementation plan of the Stockholm Convention.

Despite shortcomings in the quality of some areas of Project execution and implementation, the Project was able to adapt to delays and setbacks and deliver some extremely important outcomes that would not have been achieved without it. The Project’s main successes have been the safeguarding and disposal of 364 tons of obsolete pesticides and in contributing to the nationwide adoption of FFS and IPM. The Project did not achieve several important results relating to better pesticide life cycle management in part because funding was cut to spend on safeguarding and disposal.

The design of the monitoring and evaluation system was fit for purpose and it was effective at raising issues, although follow up on measures to deal with them was less successful. The Project did little to engage with gender but its activities did contribute towards safeguarding the environment and human health from obsolete pesticides and associated materials. The Project has produced different types of result for which the approach to sustainability and scaling differ. It made progress along 8 out of 12 of its impact pathways that constitute the project theory of change. This is an acceptable result given difficulties that the Project faced.

The evaluation makes the following recommendations to FAO and the Project Steering Committee (PSC).

- (1) The PSC should ensure that steps continue to be taken to reduce risk from existing stocks of obsolete pesticides and associated waste;
- (2) The PSC should continue to take steps to prevent further accumulation of obsolete pesticides and waste;
- (3) FAO and the PSC should help to ensure the success of nationwide roll-out of IPM / FFS in Eritrea;
- (4) The PSC, FAO and GEF should learn lessons to improve implementation, execution and gender equity in future projects to reduce risk from pesticides in Eritrea and globally;
- (5) The PSC and FAO should ensure gender is mainstreamed into plans to sustain and scale Project results. FAO and GEF should mainstream gender into projects whose preparation did not follow FAO’s environmental and social standards;

- (6) The PSC and FAO should take steps to ensure that reducing the risk from pesticides remains a priority for the government.

1. Introduction

1. The “Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea Phase II” project (POPs Project) was designed to eliminate stockpiles of POPs and other obsolete pesticides in Eritrea, and to make sustainable improvements in pesticide management and use in order to reduce the serious threat these chemicals can pose to human health and the environment. Specifically, the project worked on three areas:
 - POPs, obsolete pesticides and contaminated material safely, remediated safeguarded and destroyed;
 - Strengthened capacity for pesticide life-cycle management including Integrated Pest Management (IPM);
 - Raised awareness of pesticide hazards and risk reduction.
2. The first area worked to reduce risk from existing stocks and contamination while the other two areas worked to reduce future risk.
3. The total project budget was US\$ 5,400,000 of which GEF contributed US\$ 2,150,000, Government of Japan US\$ 1,500,000, FAO US\$ 935,000 and the Government of Eritrea US\$ 55,000 in cash. Other donations were in kind, with the largest being from the Private Sector (CropLife) and Government of Eritrea. The Food and Agriculture Organization of the United Nations (FAO) was the GEF implementing agency, and was also the executing agency responsible for supervision and provision of technical guidance during the implementation of the Project.
4. The evaluation used a cluster approach. This means that this Project, with two similar GEF-funded projects in Botswana and Mozambique due for final evaluation, used a common evaluation management and evaluation team. This approach allows for cross-project comparisons and learning. In addition to individual country-level evaluation reports, the evaluation also produced a lessons learned document of relevance to reducing risk for pesticide use in East and Southern Africa, adding to a similar synthesis from West Africa.

Box 1. Basic project information

GEF ID:	3987
FAO ID:	606880
FAO Project Symbol:	GCP/ERI/014/GFF
GEF Implementing Agency:	FAO
GEF Executing Agency:	FAO
National Executing Partner:	Ministry of Agriculture
Other Executing Partners:	Ministry of Land, Water and the Environment; Ministry of Health
GEF-4 Strategic Programs:	POPs SP-1, Strengthening Capacities for NIP Implementation
	POPs SP-2, Partnering in Investment for NIP implementation
	POPs SP-3, Partnering in the demonstration of feasible, innovative technologies and best practice in POPs reductions
	Sound Chemicals Management
Date of CEO endorsement:	28 April 2011
Date of project start (effective):	1 January 2013
NCE date:	31 December, 2018

1.1 Purpose of the evaluation

5. The final evaluation is a requirement of the main donor, the Global Environment Facility (GEF). It provides an account of how donor funds were spent and what was achieved for different stakeholders involved. As well as meeting accountability requirements, the evaluation also reviews the Project's successes and challenges to learn lessons for future work in the area. Findings, conclusions and recommendations are based on triangulated evidence and analysis.
6. The evaluation will assess the project against its set objective: "to reduce the risk to public health and environment from pesticides through the characterization, treatment and decontamination of POPs and POPs contaminated soils." The evaluation also documents intended and unintended consequences and how the Project contributed to them.

1.2 Intended users

7. The intended users of the results of the final evaluation include: focal points in the line ministries involved with the project (Agriculture, Land, Water and the Environment, Health); members of the Project Steering Committee; the Project Management Unit; Project donors; the FAO Country Office; and, the units within FAO responsible for project implementation and execution. Broader lessons will be useful to donors, governments, multilateral implementing agencies, private sector (e.g. CropLife) and civil society organizations interested in reducing risk throughout the pesticide life cycle. Other uses of evaluation results will include meeting GEF and FAO accountability requirements and informing next steps to consolidate and build on Project successes and learn from Project shortcomings. This was not the first project to deal with pesticide risk in Eritrea and it will likely not be the last.

1.3 Scope and objective of the evaluation

8. The final evaluation assessed the Project from its inception in January 2013 until December 2018. The evaluation focuses on results generated by funds spent during this period. The scope of the evaluation is determined by five evaluation questions shown in Box 2.

Box 2. Evaluation questions, scope of inquiry and GEF rating criteria addressed

EQ 1: How relevant was the project to global and national efforts for reducing risks to public health and the environment due to POPs and POPs contaminated soil?

EQ 1 addresses the relevance of the project at global and national scale. This involved establishing government position on pesticide use and disposal in policy documents, establishing relevance of project objectives to main chemical conventions through relevant websites and asking FAO and government representatives as to their view of the relevance of the project.
GEF rating criteria addressed: Relevance

EQ 2: How effective has the project been on delivering results?

EQ 2 addresses the delivery of project outcomes. The question considers whether project design was adequate to achieve outcomes as well as the extent to which project outcomes have been realized. This involves developing a theory of change based on project documents and conversations with key change agents and then testing it against data gathered in the field and monitoring and evaluation (M&E) reports.
GEF rating criteria addressed: Achievement of project results; stakeholder engagement

EQ 3: How satisfactory was project implementation and execution in achieving results? How satisfactory was M&E?

EQ3 considers whether institutional arrangements, project management, oversight, financial management and M&E were fit for purpose. The main sources of information were Project Implementation Reviews (PIRs), budgets, minutes of Steering Committee meetings as well as interviews with staff involved in implementation and execution.
GEF rating criteria addressed: Efficiency, project implementation and execution; monitoring and evaluation; co-financing

EQ 4: To what extent and how did the project include gender and environmental and social safeguarding in project design and implementation?

EQ 4 addresses gender and environmental and social safeguarding in project implementation. The Project began before GEF or FAO revised requirements to include gender mainstreaming in project design. The evaluation focuses on what steps the Project took to incorporate gender considerations and environmental and social safeguarding in project design and operation, particularly after recommendations made in the Medium-Term Evaluation.
GEF rating criteria addressed: Gender, environmental and social safeguards

EQ 5: To what extent and how can project outcomes be sustained and scaled to achieve wider impact?

EQ 5 addresses Project sustainability and future impact at scale by developing and critiquing a theory of change for the Project as well as understanding the different types of project results and what they need to be sustained and scaled. Information and insight for generating the theory of change came from the Project documents, the Inception Workshop, from evaluation team interviews with key stakeholders and from observation during visits to the field.
GEF rating criteria addressed: Sustainability, progress towards impact

1.4 Methodology

9. The evaluation methodology was described in an Inception Report (Annex 2) which passed through an internal FAO Office of Evaluation (OED) review process.
10. The evaluation adheres to the United Nations Evaluation Group Norms and Standards, the Global Environment Facility (GEF) Evaluation Policy and is in line with the FAO Office of Evaluation manual, methodological guidelines and practices. The evaluation was undertaken in line with the United Nations principles of independence, impartiality, transparency,

disclosure, ethical behaviour, partnership, competencies and capacities, credibility and utility, and adopted a consultative and transparent approach with the Project's internal and external stakeholders throughout the evaluation process.

11. The evaluation was structured according to the value for money framework (DFID, 2011) as reflected in the evaluation questions shown in Box 2. Sub-questions were developed to further define the objectives of the evaluation (refer to Annex 2 – Inception Report). The evaluation also conducted a scoping phase in July 2018 to better define the priorities and limits of the evaluation.
12. The evaluation is based on the analysis of project documents (see Bibliography) and interviews with main actors involved in project implementation (see Appendix 1). The evaluation team:
 - Undertook a review of the project's relevance, efficiency, effectiveness and approach to gender and equity;
 - Carried out an analysis of the Project's design, potential impact, likely sustainability, institutional arrangements, management and financing;
 - Recommended next steps for the Project Steering Committee to continue to reduce risks from pesticides;
 - Identified lessons learned from project design, implementation and management of relevance to future efforts to reduce risk from pesticides regionally and globally.
13. The evaluation questions are further elaborated by a number of sub-questions. The sub-questions were chosen based on an exhaustive reading of the project document and mid-term evaluation report. The sub-questions are also chosen and worded such that answering them will provide a basis for the evaluators to rate project performance as per GEF requirements for terminal evaluations. Judgement criteria for answering the sub-questions, as well as sources of data and methods of analysis, are shown in an evaluation matrix in Annex 2.
14. An inception workshop was held at the start of the evaluation team's visit to Eritrea to build participants understanding and ownership of the evaluation process and results. The dates of the mission were 9 to 18 December, 2018. Participants carried out a self-evaluation of the Project which the evaluation team used to inform and validate their own findings, working on the assumption that project staff and implementers are in the best position to identify project results, successes and shortcomings. Moreover, the literature on utilization-focused and participatory evaluation suggests that evaluations that include project staff and stakeholders in the evaluation are more likely to produce results that are useful and used.
15. The inception workshop was attended by 15 people from the MoA (Agricultural Extension Department, Debub National Agricultural Research Institute, Planning and Statistics Division); MoLWE (Regulatory Services Department); Hamelmalo College of Agriculture; and the Eritrean Crop and Livestock Corporation.
16. Participants worked in three groups, representing the three main areas on which the Project worked: 1) safeguarding and remediation of pesticides; 2) strengthened capacity for pesticide life-cycle management and Integrated Pest Management (IPM); and, 3) raised awareness of pesticide hazards and risk reduction. Each group constructed a timeline of what they

considered to be the main events and processes in each of the three areas. They then carried out an 'after action review' by reflecting on what worked well, not so well, gaps and lessons learned. Finally, participants identified and prioritized next steps.

17. The evaluation team developed a theory of change for the Project based on the Project proposal and presented it to participants for validation. Participants used the theory of change to help identify gaps in implementation and priorities for next steps. The evaluation team also presented and explained the pesticide life cycle (**Error! Reference source not found.**) to help with this.
18. The life cycle of a pesticide is defined as all the stages that a pesticide might pass through from production to its degradation in the environment after use, or its destruction as an unused product. This includes manufacture, formulation, packaging, distribution, storage, transport, use and final disposal of a pesticide product and/or its container (FAO & WHO 2014). Sound pesticide management must therefore address all of these aspects. Suboptimal and weak pesticide management contributes to the accumulation of stockpiles of obsolete pesticides.
19. The evaluation questions were answered through an extensive review of documents listed in Bibliography and through talking to people listed in Appendix 1. People were interviewed using questions derived from the evaluation matrix and questions designed to elicit understanding of underlying motivations and dynamics. The interviews were targeted based on initial analysis, recommendations from the country teams and snowballed from previous interviews. Respondents names were anonymised when the evaluation refers to something specifically said in an interview.

Box 3. The pesticide lifecycle



The life cycle of a pesticide is defined as all the stages that a pesticide might pass through from production to its degradation in the environment after use, or its destruction as an unused product. This includes manufacture, formulation, packaging, distribution, storage, transport, use and final disposal of a pesticide product and/or its container (FAO/WHO 2014). Sound pesticide management must therefore address all of these aspects. Suboptimal and weak pesticide management contributes to the accumulation of stockpiles of obsolete pesticides.

20. The evaluation team carried out field visits to pesticide safeguarding stores in Daeropaolos, to a site of pesticide contamination at the Old Airport in Massawa, a site of a proposed landfill for obsolete pesticides and contaminated soil 30km from Massawa, the proposed gasification plant to be used to dispose of used plastic containers at Scarico and to talk to farmers and government staff involved in IPM in the Mendefera Region (Zoba). The evaluation team also talked to key government stakeholders in Asmara, the capital of Eritrea.
21. At the end of the in-country mission and interviews, the evaluation team presented the preliminary findings to members of the project steering committee including the chair, the GEF focal point the national project coordinator and the FAO representative. An internal Office of Evaluation peer review of the draft of the evaluation report was conducted to ensure quality. The first draft of the report went through an OED internal quality control check before circulation to a wider group of stakeholders. The evaluation report was finalized after the comments were received and corrections and suggestions were incorporated as considered appropriate by the Office of Evaluation and the evaluation team.

22. In order to meet GEF evaluation requirements, facilitate comparisons with other GEF implementing agencies and contribute to the GEF programme learning process, the evaluation rated the Project in accordance to the existing GEF rating scheme and Office of Evaluation guidelines.

1.5 Limitations

23. The main limitation was access to the information required to assess co-financing. The team found information on co-financing in the Project Implementation Reports, but it was not clear how the in-kind contributions were calculated, nor how the contributions were allocated across the five project components. Ultimately, this made it impossible to know how much had been spent overall and how much had been spent on each of the components. Hence it was not possible to properly assess actual co-financing contributions and the extent that funds may have been shifted from one component to the other.
24. The Project proposal was developed before it was an FAO or GEF requirement for projects to have an explicit gender strategy or develop a theory of change. The former made it hard to say much about the fourth evaluation question on gender and equity beyond a recommendation made in the Mid-Term Evaluation. The lack of a theory of change was less of a constraint because the evaluation team was able to infer one from the Project's result framework.

2. Background and context of the project

2.1 Context of the project

25. Eritrea has a legacy of environmental degradation and public health impacts from pesticides, including POPs, dating from the 1950s. According to the Project document as of 2010, much of the obsolete stock in Eritrea that the Project set out to dispose of were left over from previous Italian and Ethiopian regimes. The stock was old, often badly deteriorated and stored in unsuitable conditions. Many stores were located close to habitation and water sources. Some of this stock had been pilfered and there had been reports of people being hospitalised and even dying as a result of pesticide exposure whilst taking old, unguarded stocks.
26. Imports of pesticides to Eritrea were, and still are, mainly purchased by the Ministry of Agriculture and the Ministry of Health through the Red Sea Corporation. Between 2008-2010 the Ministry of Agriculture purchased approximately 427 tonnes of pesticides (a mean of 142 tonnes/year). Licenced imports by the private sector were negligible. The level of importation of pesticides fell far short of demand for these products, resulting in an escalating market in illegal products.
27. In 2008, FAO, with support from the Governments of Japan and the Netherlands, completed the project 'Prevention and Disposal of Obsolete Pesticides in Eritrea (inventory and CESA) Phase I' (Inventory Project). The project identified 400 tonnes of obsolete and unknown pesticides and approximately 1,400m² of contaminated soil; 12,000 empty containers; 5,400 contaminated sprayers and a number of contaminated stores.
28. The Government of Japan agreed to fund an FAO / Government of Eritrea technical cooperation project (TCP) called "Safeguarding and Disposal of Obsolete Pesticides" (Safeguarding Project). The grant agreement was signed in March 2010. This funding of almost US\$1.5 million was put together with co-financing from FAO, EC, the Government of Eritrea and CropLife International to leverage a further US\$ 2.15 million from GEF to form the POPs Project with a budget of US\$ 5,359,153. The POP Project agreement was signed by FAO and the Government of Eritrea on 20 March 2012. See Table 4 for more details on co-financing. The start of the Safeguarding Project was delayed to run in parallel with the POPs Project.
29. The Inventory Project carried out a Knowledge, Attitude and Practice (KAP) survey which found weaknesses in pest and pesticide management practices. This information was used to develop communication and information strategy documents for management of pesticides and pests, including management of citrus pests. Priority crops or IPM intervention were identified and FAO subsequently ran an IPM Technical Cooperation Project for citrus.
30. The KAP survey was also used to develop a policy on pesticide management, which was submitted for approval to the Department of Justice in 2008. The survey was used to develop a communication strategy. Further work on both the draft legislation and communication strategy was included in the POPs Project document.

31. IPM was originally developed in the 1950s and 1960s in response to concerns about overuse and abuse of pesticides. A number of projects had supported IPM prior to the start of the POPs Project, including an FAO project on IPM in fibre and seed crops and a DANIDA-supported Agricultural Sector Support Programme. By 2010, the Government of Eritrea had a draft national policy and strategy on IPM. The EU earmarked US\$ 100,000 as co-financing for the POPs Project for IPM strategy development. IPM became a big part of the POP Project document.
32. A Mid-Term Evaluation (MTE) of the Project was published in December 2016 which made seven recommendations, summarised as follows:
- To make improvements to Project management in particular with respect to providing the Project Steering Committee with information on Project expenditure, setting up PMU office, writing of progress reports and ensuring equal attention to all Project components;
 - To move forward the work on IPM by drafting documentation, agreeing a replication plan and ensuring sufficient pheromone traps were available;
 - To move forward the safeguarding of pesticide stockpiles by building a permanent store, repackaging and procuring packaging materials;
 - To move forward the clean-up of the Massawa Old Airport contaminated site by funding the design and environmental impact assessment of a landfill;
 - Produce a preliminary inventory of sites contaminated by pesticides, especially POPs;
 - To change the communication strategy to make it compliant with UN and FAO policies on gender mainstreaming;
 - To further develop the concept note on management of empty containers.

2.2 Institutional arrangements

33. The POPs Project institutional structure is shown in Figure 1. FAO was both the **GEF implementing agency (IA)**¹ and the **executing agency (EA)**.² The **FAO-GEF Coordination Unit (GCU)** was responsible for providing an FAO GEF Annual Monitoring Review to GEF, based on the annual PIR. GEF made tranche payments on the basis of these reports. The Pesticide Risk Reduction Group were the **Lead Technical Unit (LTU)** responsible for providing technical support and ensuring delivery of outputs and outcomes. The LTU reviewed and provided clearance on consultancies and contracts on: selection of consultants and firms to be hired with GEF funding; all technical reports; reports on project progress; implementation reviews and financial reports. The LTU prepared the annual Project Implementation Review (PIR) in discussion with the GEF Coordination Unit and submitted to the GEF. The GCU also approved implementation reviews, financial reports and budget revisions and was also involved with Project supervision.

¹ Partner directly managing the project, executing project activities, monitoring project progress, sub-contracting, managing project staff and funds, and carrying out other project management functions (GEF Definition of Terms.pdf).

² Agency making the funding available and providing oversight during the entire project cycle and being held accountable to the GEF Council for delivering global environmental benefits. Responsibilities include ensuring fiduciary standards are applied, and supervising the development and implementation of projects, including monitoring and evaluation, on behalf of the GEF (GEF Definition of Terms.pdf)

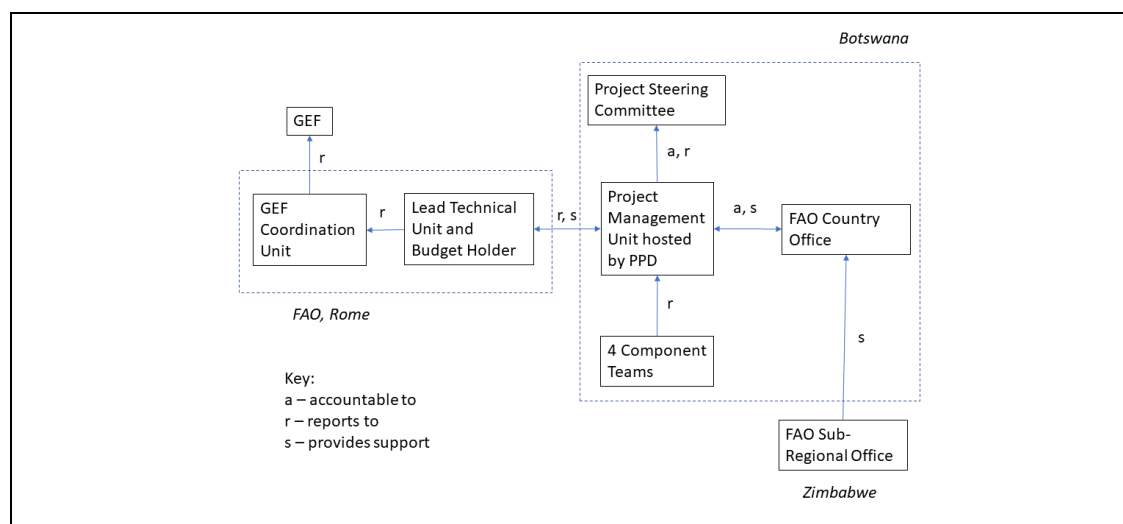


Figure 1. Project institutional arrangements³

34. Until 2015, AGP was also the FAO Budget Holder responsible for approving financial transactions against the GEF budget, working in close collaboration with the Executing Partner, the Regulatory Services Department of the Ministry of Agriculture (RSD).
35. RSD was responsible for hosting the Project Management Unit (PMU), appointing the Chair of the Project Steering Committee (PSC) and, appointing and funding a number of positions including:
 - Full-time National Project Coordinator (NPC) in charge of the PMU;
 - Part-time M&E Officer;
 - Safeguarding / Disposal Officer
 - Pesticide Management Officer;
 - IPM Officer;
 - Communications Officer.
36. The Ministry of Land, Water and Environment (MoLWE) was responsible for appointing and funding:
 - Environmental Coordinator for the PMU;
 - Disposal Task Team;
 - Pesticide Management Task Team.
37. Persons appointed to these positions continued with their duties in government ministries.
38. MoLWE facilitated the Project working with the country focal point for the relevant pesticide and hazardous chemical conventions (Stockholm, Basel and Rotterdam).

³ Adapted from ERI_Prodoc.pdf

39. The PMU was responsible for day-to-day management of activities against a work plan agreed with the PSC and the Budget Holder. An internationally-recruited Technical Advisor (TA) was appointed to PMU to provide full-time technical and project management support. He helped prepare all required reports for submission to the LTU.
40. The PMU reported bi-annually to the PSC. The PSC was originally inherited from the TCP Safeguarding Project to help ensure continuity between the two initiatives. By 2018, PSC members included:
 - Director General of the Regulatory Services Department (RSD), Ministry of Agriculture (Chair),
 - Director of Environmental Management Regulations, Ministry of Land, Water and the Environment
 - National Project Coordinator, RSD, Ministry of Agriculture
 - Head of Malaria National Control Program, Ministry of Health
 - Director, Plant Resources Regulatory Division, RSD, Ministry of Agriculture
 - Representative of Crop and Livestock Corporation of Eritrea
 - Representative of Ministry of Education
 - FAO Representative in Eritrea
41. The PSC's roles were to provide policy advice, approve annual work plans and budgets and review project progress and performance.
42. The **FAO Country Representative (FAOR)** supported project execution, liaising with Government bodies, and linking with other FAO interventions. The FAO Country and Regional Offices supported financial management, procurement and human resources. In 2015, FAO-Eritrea became the Budget Holder.
43. The institutional arrangements described are consistent with GEF's Direct Execution modality, described in Box 4.

Box 4. FAO's Direct Execution modality for GEF projects⁴

Under the Direct Execution (DEX) modality, FAO implements and executes projects and provides services to National Institutions under the guidance of the Project Steering Committee (PSC), chaired by the lead Ministry or main National Executing partner. FAO is technically and fiduciary accountable for the achievement of all expected project results. The separation of implementation and execution functions, an important aspect of the GEF Minimum Fiduciary Standards, is ensured by maintaining the following setup. The day-to-day management of an FAO-GEF project is the responsibility of the FAO Budget Holder (BH) and the Project Management Unit (PMU) established for each project (execution function), while technical oversight, project supervision, and evaluation are the responsibilities of the FAO technical officers assigned to the specific FAO-GEF projects, FAO GEF Coordination Unit as Funding Liaison Unit, and the FAO Office of Evaluation (OED), respectively (implementation function).

⁴ FAO's role and responsibility as a GEF Agency.doc p. 1 of Annex 3

2.3 Aims of the Project

44. The Project's overall goal, as stated in the Project document, is "reduced risk to human health and the environment from POPs and other pesticides." Stakeholders and beneficiaries of the project were identified as: policy makers in several ministries (e.g., Agriculture, Environment, Education, Justice); national authorities involved the control of pesticide imports and quality control of pesticides; national staff involved in safeguarding, disposal and prevention activities; advisory / extension services and contact farmers; farmers in particular tomato growers; and, women and men living near contaminated and leaking stores and contaminated soil. Indirect beneficiaries were identified as: consumers unaware of threat caused by overuse of pesticides; farmers exposed to illegal or sub-standard products; and, the global population and environment in the case of releases of POPs pesticides.
45. The project's Global Environmental Objective was to eliminate risks from POPs and obsolete pesticides in Eritrea through the use of sound environmental management methods to dispose of existing stocks and prevent further accumulation of POPs and obsolete pesticides. The Project aimed to contribute to Millennium Development Goal (MDG) 7 on environment by reducing the environmental impact of obsolete pesticides entering the environment in an uncontrolled manner, and pesticides in use that impact on health and the environment through poor management and use practices. The Project also aimed to impact on MDG1 by contributing to more sustainable agricultural practices, improving food quality and value for the farming communities. Although the Sustainable Development Goals were proposed after the start of the Project, the Project could also have contributed to SDG3 on good health and well-being and SDG12 on responsible production and consumption.
46. The Project aimed to be fully consistent with relevant provisions in the GEF POPs Focal Area Strategy. It intended to contribute to the GEF-4 strategic objectives of reducing and eliminating production, use and release of POPs and address all three strategic programmes:
- SP-1 Strengthening capacity for National Implementation Plan (NIP, of the Stockholm Convention) development and implementation;
 - SP-2 partnering in investments needed for NIP implementation; and
 - SP-3 Partnering in the demonstration of feasible, innovative technologies and best practice in POPs reduction.
47. The Project set out to achieve its aims through working on four components:
- Disposal of POPs and other obsolete pesticides and remediation of contaminated materials (Total: US\$3,489,628; GEF US\$1,205,978; Co-finance US\$2,283,650);
 - Capacity building for pesticide life-cycle management (Total: US\$1,116,861; GEF US\$556,745; Co-finance US\$560,116)
 - Information and Communication (Total: US\$159,228; GEF US\$141,228; Co-finance US\$18,000)

2.4 Theory of change

48. A theory of change is an evidence-based story of how a project *has* or *will* achieve outcomes using the resources at its disposal. Most are the former -- predictions of how a project will bring change. A good theory of change builds its predictions on evidence of what is already starting to happen, from the social science literature and/or from stakeholder experience. It identifies the underlying mechanisms, that when triggered, will drive results with less or no subsequent project intervention. It also identifies their absence.

49. The evaluators classify project outcomes according to three categories to help answer the evaluation question on sustainability and impact of project outcomes. Doing so helps identify what the underlying mechanisms are and if they have the potential to drive change. The categories of outcomes are described in Box 5 (Hardcastle, 2008).

50. A theory of change is usually accompanied with a diagram that shows a pathway from inputs to impact following the steps shown in Figure 3. Projects generally have control over whether they produce outputs, because they can be purchased. For example, a communication strategy is an output - a consultant can be employed to produce it. However, how farmers respond to a communication campaign on safe pesticide use is not under the project's control, but is under its influence. The project can tailor the campaign to the target audience. Outcomes, for the purposes of this evaluation are defined as changes in knowledge, attitude, skills, aspirations and/or practice by stakeholders engaging in project processes using project outputs. Outcomes also include changes in social or environmental state, for example a healthier environment after contaminated soils have been remediated and stop contaminating the water supply.

Box 5. Categories of project outcomes that require different approaches to be sustained and scaled

Self-sustaining - an outcome that will sustain itself and/or go to scale after the project has finished without significant further external investment, for example the setting up of a system for disposing of used plastic containers that pays for itself. Self-sustaining outcomes depend on the Project triggering a causal mechanism and dynamic.



Stepwise - A process towards an outcome that reaches a stable stopping point. The main outcome has not yet been achieved but progress can be put on hold for some time without major reversals, e.g. development of a communication strategy to be implemented sometime in the future. A stepwise process may or may not eventually lead to a self-sustaining outcome.



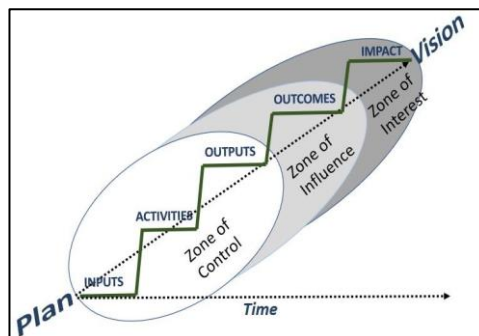
Contiguous - need to continue to fund the work if the outcome is to be maintained or repeated, for example the safeguarding and international disposal of obsolete pesticides. There is no expectation of a self-sustaining causal mechanism that will continue after the project ends. Future outcomes require the government or a donor to provide the necessary funding to do it again. There can be major reversals, for example the capacity built in safeguarding, disposal and remediation is lost because team members leave to find more secure work (Hardcastle, 2008).

51. Impacts are the cumulative knock-on effects of outcomes (**Error! Reference source not found.**). acknowledges that practically speaking, projects have little or no influence over impact, but is something they should be interested in, and reacting to, particularly if project outcomes result in unexpected negative consequences.

52. FAO has recommended that project concept notes include a theory of change since 2015. The POP Project began before 2015 and did not develop a theory of change as part of the project document.

53. As suggested by the GEF Guidelines on the Project and Programme Life Cycle Policy⁵, the evaluation team developed a theory of change (see Figure 3) from project documents, in particular the project results framework.⁶ The team presented the diagram for validation by project staff and key stakeholders during the inception workshop at the beginning of their country visit. Workshop participants confirmed that the diagram was a plausible model, to them, of how the Project was supposed to contribute to outcomes and impact.

Figure 2. Steps and level of certainty in a theory of change



⁵ GEF Project_Program_Cycle_Policy_OPPL01.pdf

⁶ ERI_Prodoc.pdf, p. 18

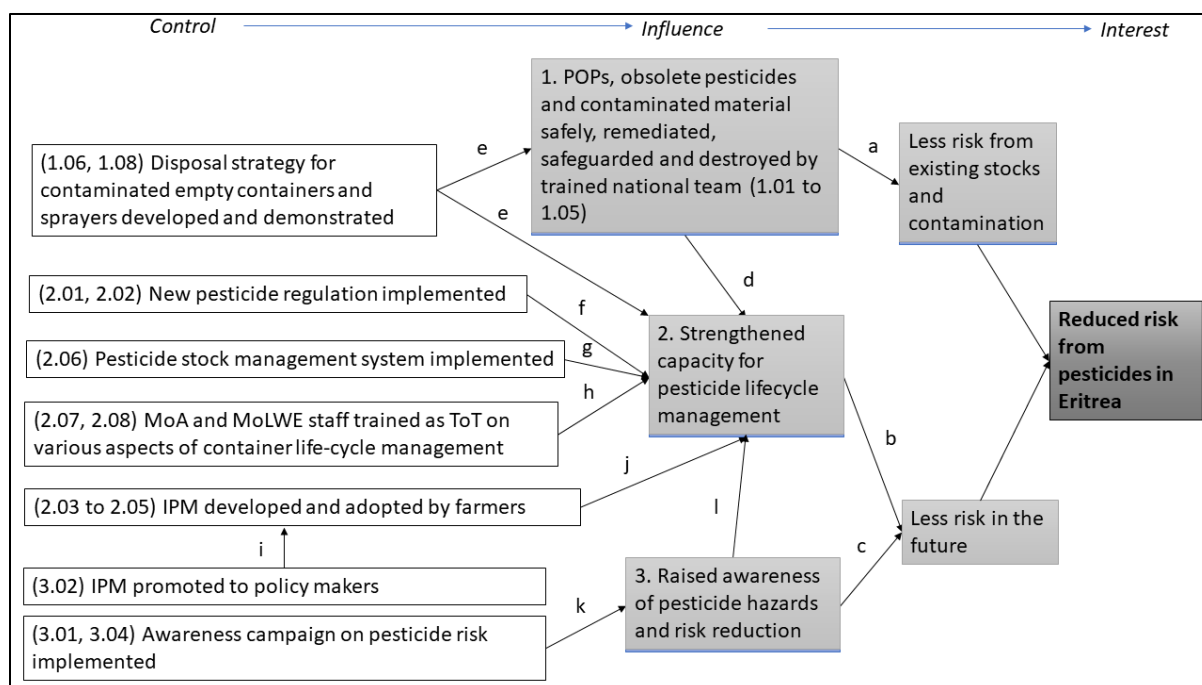


Figure 3. Project theory of change

Table 1. If-then logic underpinning the theory of change

Arrows	If – then logic
a.	Remediating, safeguarding and disposing of obsolete pesticides and contaminated material reduces risk to human and environmental health
b.	That strengthened capacity leads to changes in management of the pesticide life-cycle that reduce risk
c.	That raising awareness of pesticide hazards and greater knowledge of alternatives to the use of pesticides leads people to adopt less risky ways of handling and using pesticides, as well as lower rates of use
d.	Safeguarding and disposing of obsolete pesticides will build the capacity of a team or teams to do so in the future, thus strengthening the in-country capacity for life cycle management (disposal of unused stock is part of the life cycle).
e.	Developing and demonstrating a strategy for disposing of contaminated empty containers and sprayers will lead to the disposal of current and future stocks
f.	Enacted and implemented pesticide legislation will reduce risk from pesticides
g.	Central management of pesticides will avoid build-up of obsolete stockpiles
h.	Training MoA and MoLWE staff as trainers will lead to changes in practice of farmers and extension workers that improve the management of the pesticide life cycle, e.g., greater use of triple rinsing
i.	Promoting IPM to policy makers will lead them to promote greater use of IPM
j.	The use of IPM will lead to less and better use of pesticide
k.	Running an awareness campaign will lead to greater awareness among target audiences
l.	Raised awareness among target audiences will lead less and better use of pesticides

54. The numbers in parentheses refer to outputs in Project results framework. The boxes are shaded according to the control - influence - interest spectrum shown in Figure 2. The three numbered boxes represent the Project's three main outcome areas (disposal, life-cycle management, raised awareness). Each arrow in the diagram represents an if-then causal step.

For example, arrow (a) implies that if obsolete pesticides and contaminated material are remediated, safeguarded and disposed of, then risk to human and environmental health will be reduced. The if-then logic is captured in Table 1 as a first step to identifying underlying causal mechanisms needed to make the steps happen. The table is in lieu of a causal narrative that usually accompanies a theory of change to tell the outcome to impact story of the project.

55. The theory of change and the table are used to answer the main evaluation question on sustainability and impact, specifically, the extent to which the Project has moved along the impact pathways shown in Figure 3 towards achieving its goal (reduced risk from pesticides in Eritrea).
56. Theories of change often specify causal assumptions. In this theory of change, the causal assumptions are the assumptions about where and under what conditions the causal mechanisms are likely to work. Specifying and testing causal assumptions is best done as part of any future impact assessment that seeks to establish and quantify strong causal claims linking project intervention to impact on the ground.
57. In the inception workshop, the theory of change served as a checklist to help participants remember and reflect on what had worked well, gaps and to prioritize next steps. Annex 2 shows the results of this 'after-action review', which was the main output of the workshop.

3. Findings

58. This section presents the main findings for the evaluation questions in the evaluation matrix. The judgement criteria and analysis to arrive at these findings are described in the evaluation matrix (Annex 2) and in the Methodology section above.

3.1 Relevance

EQ1: How relevant was the project to global and national efforts for reducing risks to public health and the environment due to POPs and POPs contaminated soil.

Finding 1 on the Project's global relevance: The Project's objective – to eliminate risks from POPs and obsolete pesticides in Eritrea and prevent further accumulation – were relevant to international objectives for reducing and eliminating risks due to obsolete pesticides, including POPs. It is consistent with key strategic objectives of GEF4 on POPs and sound chemical management and FAO's strategic framework on sustainable agriculture (EQ 1.1). Although it's design predates the Sustainable Development Goals, the project has contributed to SDG2 and SDG12.

59. The GEF's goal is to assist countries to reduce and eliminate production, use and release of POPs in order to protect human health and the environment, and to assist countries to develop capacity for the sound management of chemicals. The fourth replenishment of the GEF Trust Fund is structured around six focal areas and cross-cutting areas, with sets of strategic programs within each focal area. The POPs project contributed directly towards the GEF POPs focal area strategy and to the cross-cutting area of sound chemicals management. Expected project outputs were aligned to main indicators of GEF strategic objectives as shown in Table 2.

Table 2. Expected project outputs in relation to GEF's strategic objectives in the POPs focal area⁷

Some expected impacts	Main indicators	Expected project outputs
GEF-supported countries have strengthened capacity for POPs management and consequently strengthened capacity for the general sound management of chemicals	Regulatory and enforcement capacity in place	Pesticide legislation reviewed and enacted.
Dangerous obsolete pesticides that pose a threat to human health and to the environment are disposed of in an environmentally sound manner	Obsolete pesticides disposed of	400 tons obsolete pesticides disposed of
The risk of adverse health effects from POPs is decreased for those local communities living in close proximity to POPs wastes that have been disposed of or contained	Reduced risk of exposure to POPs of project-affected people	Risk due to obsolete pesticide stockpiles, contaminated empty pesticide containers and pesticide contaminated sites reduced.
The basis for the future implementation of the Stockholm Convention is established through the demonstration of innovative alternative products, best practices, and environmentally sound	Knowledge management packages developed; the viability and cost-effectiveness of alternatives to POPs,	IPM FFS developed and institutionalized.

⁷ Adapted from GEF4-Focal-Area_strategy.pdf

60. Member countries of the United Nations adopted the 2030 Agenda for Sustainable Development in 2015 together with its 17 Sustainable Development Goals. FAO provides assistance for countries to enhance agricultural productivity and sustainability, including protecting crops against pests and diseases while limiting pesticide contamination. The Project's objective contributes to SDG2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture) and SDG12 (ensure sustainable consumption and production patterns). It also contributes to FAO's strategic framework to increase sustainable crop production through reducing crop losses, promoting more efficient use of pesticides and reducing pesticide risk to human health and the environment.

Finding 2 on the Project's relevance to international conventions: The Project objective was relevant to Eritrea's commitments to internationally ratified plans and conventions relating to POPs. The Project was directly aligned to Basel, Rotterdam and Stockholm Conventions on the movement, on prior informed consent and international trade in POPs, hazardous chemicals and pesticides. Eritrea is a signatory to the three conventions and as such the Project is highly relevant to the country's commitments under them (EQ 1.2).

61. The Government of Eritrea has demonstrated commitment to protecting human health and the environment from adverse effects of obsolete pesticides including POPs by ratifying conventions and international agreements related to the production, use, trade, transportation and disposal of hazardous chemicals. The country ratified the Basel Convention; the Rotterdam Convention and the Stockholm Convention in March 2005.
62. The Basel Convention and the Stockholm Convention provide guidance for disposal of existing obsolete pesticide stocks and immediate risk reduction. The Rotterdam Convention provides guidance for development of policies and strategies to control importation of hazardous chemicals and prevent accumulation of obsolete pesticide stocks. The project contributed directly towards achieving the key objective of the Basel Convention by ensuring environmentally safe transportation and disposal of 364 tons of obsolete pesticides and wastes. National capacity to comply with provisions of the Rotterdam Convention were strengthened through initiating review of pesticide legislation and training staff in procurement and stock management.
63. The involvement of focal points for the 3 major chemical conventions and their participation in meetings of the steering committee facilitated smooth implementation of requirements of the conventions, including obtaining the necessary Basel notification for movement of obsolete pesticide stocks.

Finding 3 on the Project's national relevance: The Project objective was relevant to Eritrea's national policies relating to POPs and obsolete pesticides. The Project directly addressed national priority issues related to POPs in the National Implementation Plan developed under the Stockholm Convention (EQ 1.3).

64. As party to the Stockholm Convention, Eritrea is eligible to access funding for preparation of a National Implementation Plan and development of an effective plan for reduction of risk posed

by pesticides. Eritrea developed its NIP with technical assistance from UNIDO and financial assistance from GEF in 2011. The NIP provides a national policy framework for addressing POPs related issues. Specific policy objectives contained in the NIP include reducing and eliminating use of POPs; identifying and promoting the application of Best Available Techniques and Best Environmental Practices leading to reduction and eventual elimination of POPs; and mechanisms to reduce impact of POPs.

Box 6. Highly Hazardous Pesticides

Highly Hazardous Pesticides (HHPs) are defined as pesticides that are “acknowledged to present particularly high levels of acute or chronic hazards to health and/or the environment according to internationally accepted classification systems such as the World Health Organization (WHO) or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or their listing in relevant binding international agreements and conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous” (FAO & WHO, 2014)

65. The Project directly addressed the following priority issues that were identified in the NIP:
- Creating public awareness and providing information and education at all levels
 - Integrated approach of concerned institutions and stakeholders on POPs issues
 - Identification and removal of stockpiles of Annex A Part 1 chemicals, including from contaminated locations
 - Reduce POPs impacts on human health and environment
 - Technical and financial assistance (Bilateral and Multilateral financial resources accessed; Technical assistance for POPs management received).

3.2 Effectiveness

EQ 2: How effective has the project been in delivering results? (Both expected and unexpected)

Finding 4 on delivering safeguarding and disposal targets: The Project achieved its main safeguarding and disposal target with the high temperature incineration of 364 tons of obsolete pesticide stocks, meeting its target for that component. Limited progress has been achieved towards meeting targets for safeguarding and disposal of contaminated soils, EPCs and contaminated sprayers primarily due to cost overruns and failure to finalize details of their execution (EQ 2.1).

66. The Project planned to complete disposal of all pesticides and waste identified during the preparation project that had not been dealt with through the TCP project. It disposed of 364 tons of obsolete pesticides and cleaned, cut and safely stored 720 metal drums in preparation for export to a High Temperature Incineration facility for final disposal. Local recycling of contaminated sprayers and plastic containers, disposal of remaining metal drums and disposal of 70 tons of obsolete Actellic were not achieved. An extension has been sought to enable the project to finalize arrangements for local recycling and to dispose of the obsolete Actellic.

67. The 364 tons of obsolete pesticide stocks that were safeguarded and disposed through the POPs project in Eritrea far exceeds that in similar projects in Botswana and Mozambique (28.8 tons and 70 tons⁸ respectively). With the exception of 32tons of DDT that were disposed through the project, no obsolete POPs or POPs contaminated soils were identified in the country.
68. In addition to the remaining metal drums, about 6 tons of safeguarded obsolete pesticides and 24 tons that have not been safeguarding are yet to be dealt with.
69. In contrast to the POPs project in Botswana, where safeguarding staff operated on short employment contracts and staff turnover was high, staff in Eritrea were retained and great capacity has been built in the national safeguarding team. The evaluation team agrees with the assessment in the Safeguarding Project final report that the safeguarding team represent a national asset with the ability to provide training to teams in other countries⁹.
70. The safeguarding team ceased operation in June 2017 due to budget restrictions, even though much remains to be done. Prolonged inactivity will reduce the value of the asset as team members forget their skills and become unavailable.
71. The Project experienced large cost overruns on travel in safeguarding about 90 stores from which the 364 tons came¹⁰. The GEF travel budget, used for paying the 14-strong safeguarding team travel and hazard allowances, was overspent by US\$ 266,000¹¹. The overspend came from funds that would have been spent on other Project components.
72. The project aimed to develop and implement a risk reduction strategy for sites with heavily contaminated soils and building materials. Two heavily contaminated sites, Daeropaolos Store in Asmara and Massawa Old Airport, both located near inhabited residential areas were prioritized for remediation. Plans to construct a landfill for disposal of the contaminated building materials from the Daeropaolos Store and contaminated soil from Massawa Old Airport did not materialize. This was attributed to delays in allocation of a site for the landfill, a delay in responding to the geological and hydrological survey conducted by the Department of Environment (DoE) followed by a decision to have a second feasibility study conducted, and budgetary constraints. The landfill would also have provided facilities for disposal of contaminated soils from other sites in the country. Potential health risks to residents from contamination at Daeropaolos Store and Massawa Old Airport poses reputational risk to both the Government of Eritrea and FAO and urgent action needs to be taken to remediate the sites.
73. During the evaluation team's visit, members of the PSC agreed to explore a relatively quick and cheap option to remove and 'land farm' (land farming is a type of biological remediation) the Massawa contaminated soil at the proposed landfill site, following a recommendation from

⁸ Contract not yet completed

⁹ GCP ERI 017 JPN terminal report.doc p. 3

¹⁰ GCP ERI 017 JPN terminal report.doc p. 10

¹¹ Budget Revision GEF (last).xls

the second feasibility study. The evaluation team recommended an exceptional extension to allow unspent funds to be used for this purpose.

74. The Project planned to upgrade 8 stores for use as intermediate collection centres and to build one new central collection centre. A site was selected and design agreed for the central store but before construction could start the land was given for another use. The PSC decided to reallocate remaining funds to help cover the safeguarding overspend. Two stores were upgraded by the Project - Daeropaolos and Keren. An additional five stores were upgraded during the TCP/ERI/3202 project that ran from July 2009 to October 2011
75. The PSC has also agreed that the 70tons of obsolete Actellic dust is to be disposed of at the Ghedem Cement Factory. Unspent Project funds are to be used to build a feed into the furnace. Disposal did not happen earlier because operation of the Cement factory stalled.

Finding 5 on capacity development: The project has developed institutional capacity to reduce risk from pesticides and associated wastes through providing training and technical support for execution of project activities. Significant capacity was built in safeguarding obsolete pesticides. Capacity was also built in IPM and FFS approaches and in procurement and pesticide stock and store management (EQ 2.2).

76. Developing national capacity through project implementation is one of the cross-cutting goals of the GEF. The capacity building component of the Project was structured around a number of training courses and workshops addressing gaps in life-cycle management of pesticides that had been identified prior to preparation of the project. Table 3 summarises the training activities conducted during the course of the project in terms of stages in the pesticide lifecycle. Table 4 provides information on courses given, organizations participating and numbers of attendees.

Table 3: Summary of training carried out by the Project with respect to the stages of the pesticide life cycle addressed

Stage of pesticide life cycle addressed by training	Number trained
Import	91
Registration	91
Procurement	91
Distribution/Sale	91
Use	221
Post Registration Monitoring	91
Waste Management	114

77. Developing national capacity through project implementation is one of the cross-cutting goals of the GEF. The capacity building component of the Project was structured around a number of training courses and workshops addressing gaps in life-cycle management of pesticides that had been identified prior to preparation of the project. Table 4 summarises the training activities conducted during the course of the project in terms of stages in the pesticide lifecycle. Table 4 provides information on courses given, organizations participating and numbers of attendees.

Table 4: Details of training carried out by the Project

Nature & duration of training	Participants	Number trained	Date
Two-week course on safeguarding	MoA, MoLWE & MoH	25	
Two year Post Graduate Diploma in Pesticide Risk Management at the University of Cape Town	MoLWE	1	2013/14
Principles and approach of FFS and IPM	MoA, HAC, AED, DOE, MoLWE	47	12-13.06.2014
Three-month Training of Trainers on IPM FFS for management of Tuta absoluta in tomatoes	MoA extension staff from Zoba Debub	22	2015
Season-long IPM FFS facilitators training	MoA	25	2016
Sub-Zoba training in IPM FFS	Extension staff, farmers	150	2017
Pesticide management	MoA, MoLWE, ECLC	30	5-7.06.2017
Store management	MoA, ECLC, Hidri Distribution Company		8-9.06.2017
Pesticide store and stock management	MoA staff & store managers	66	
One-week course on Pesticide planning and Stock Management	MoA, MoLWE & MoLWE & another stakeholder	80	
IPM and FFS	Extension staff	67	
FFS	Farmers	20	

78. The State of Eritrea does not produce or formulate any pesticides, therefore training provided through the POPs project did not focus on this stage of the pesticide life cycle. One candidate successfully completed the Post Graduate Diploma in Pesticide Risk Management at the University of Cape Town in South Africa. This on-line course employs a life cycle approach to risk reduction and would likely discuss all stages of the life cycle. Most training provided through the Project was targeted at understanding and implementing IPM and FFS. A 2-day course was given on the principles and approach and was provided to staff from MoA, HAC, AED, DOE, MoLWE as well as M. An integrated approach to pest management involves utilization of a range of management strategies including early pest recognition and protection of plants from infestation, which aim to address pesticide use and ultimately result in a reduction in the range and frequency of pesticide applications. The objective of the POPs project was to reduce risk from obsolete pesticides and wastes. A core of national staff received training and gained experience in safeguarding obsolete pesticides and wastes. Great capacity has been developed in safeguarding and the team that was trained through the project could be a valuable asset for future safeguarding activities. Training was also provided in pesticide procurement and stock and store management which help to prevent accumulation of obsolete pesticides.
79. The composition of the SC and the PMU with participation of a number of government departments encouraged inter-departmental capacity building and cooperation. The review of pesticide legislation involved a wide range of stakeholders (MoA; MoH; MoLWE; Ministry of Education; Ministry of Information; Ministry of Finance; Ministry of Local Government; Crops and Livestock Corporation and two private companies). This inclusive process not only encouraged wide ownership of the process and enriched the technical quality of the output but also resulted in development of capacity to reduce pesticide risk across a number of institutes.

80. During the course of the project four shipments of obsolete pesticides were sent for disposal at a specialized facility in the United Kingdom. Government departments involved in this process gained experience in meeting conditions of the Basel Convention for movement of hazardous waste. Implementation of the project also enhanced national capacity to comply with provisions of the Stockholm and Rotterdam Conventions which collectively provide guidance and protection for countries to reduce risks from pesticides and associated waste.

Finding 6 on IPM: The Project has contributed substantially to development and implementation of IPM in Eritrea that has the potential to reduce risk from pesticides and associated waste. The urgent priority is to lever the capacity built by the Project to help ensure the successful roll-out of IPM/FFS at a national level (EQ 2.3).

81. FAO has been a key player in the development and global spread of FFS since introduction of the approach in Southeast Asia in the 1980's. By 2016 the FFS approach was being implemented in over 90 countries and it has been used in national IPM programmes.¹² FFS are seen as a sustainable means of enhancing the capacity of farmers to identify and adapt management strategies that focus on a healthy agro-ecosystem approach with minimal use of pesticides.
82. Citrus is an important crop for both nutrition and income generation in Eritrea. However high production costs and reduced quality of the crop due to damage by insect pests have affected its profitability. The Government of Eritrea requested assistance from FAO in 2006 and 2008 to formulate and implement a pilot IPM project in citrus in a bid to address problems associated with excessive use of pesticides and increase production¹³. A TCP on citrus IPM was initiated in 2009 and a survey was carried out to identify major pests of the crop. Parasites were identified and imported to be established as biological control agents. Following unsuccessful release of these parasites' potential natural enemies for black and red scale, wooly white fly and leaf miner were collected locally and a tender was raised for their identification. In 2015 a decision was taken by the project steering committee to shift the focus of the IPM programme from citrus to tomato following invasion by the tomato leaf-miner *Tuta absoluta*. This put further development of a biological control programme on citrus on hold. Management of citrus pests in Eritrea still needs to be addressed and may be the focus of future national programmes or TCPs.
83. The POPs project in Eritrea recruited an IPM FFS expert in 2015 who provided training for FFS facilitators and farmers and initiated preparation of an IPM manual. Establishment of the pilot FFS took place in 2015 at Mendefera district, the capital of the southern region of the country and since then FFS have been established in 4 out of 6 districts with the support of the project. After initial delays caused by termination of the IPM consultant's contract, a comprehensive

¹² FAO 2016. Farmers Field School Guidance Document. Rome, FAO. <http://www.fao.org/3/a-i5296e.pdf>

¹³ TCP/ERI/3204(D) Strengthening capacity for integrated pest management (IPM) in Eritrea: Citrus pilot IPM programme

IPM manual was eventually completed. This is a useful output of the project that project staff¹⁴ say needs to be simplified and translated in order to enable extension staff and FFS facilitators to get maximum benefit from the resource. The project has succeeded to build capacity of IPM among national staff and farmers, and raised awareness among policymakers through a study tour to Jordan. Speaking at a graduation ceremony after completion of the first training for farmers and extension staff at Mendefera the governor of the southern region and the Minister of Agriculture expressed their appreciation for the programme and their desire to have FFS in IPM extended to all farmers' fields.¹⁵ During interviews with the evaluation team the Director General of RSD also emphasized the government's strong support for IPM and the inclusion of FFS as one of the government's strategies for sustainability. The policy is that every ward should have a FFS. As it has funded a well-known and major initiative on IPM in the country, this Project is likely to have influenced the policy. Concerns that rapid expansion could affect quality of FFS implementation were recognized by FAO, leading to the production of a document to provide guidance for ensuring quality of IPM implementation in 2016 (FAO, 2016). The evaluation team has similar concerns regarding the proposed roll out in Eritrea.

Finding 7 on disposal of empty containers: The Project has developed a strategy for disposing of plastic containers that requires a recycling plant to be connected to 3-phase electricity to implemented. It has also developed a strategy for disposing of contaminated metal containers that involves shipping them out of the country for disposal, which is still to happen. (EQ 2.4).

84. The PSC has agreed a strategy for disposing of plastic containers that involves turning them into fuel (coke, diesel, gas) at a batch gasification plant located at the Scarico municipal landfill near Asmara. The fuel will be sold to the government, for use in the Ghedem Cement Factory or a power station. About 12,000 empty plastic containers and an estimated 5 400 contaminated sprayers await disposal or recycling.¹⁶
85. The operation of the Plant has stopped awaiting connection to 3-phase electricity. A diesel generator, that is part of the Plant, could be used in the meantime, but this has been deemed too expensive (even though the Plant purportedly produces diesel). There may be other constraints to starting operation. It was not clear to the evaluation team whether delivery method or price has been agreed between the private sector owner of the Plant and the cement factory or power station.
86. The discussions the Project has held with the owners of the gasification plant and MoLWE represent progress after the MTE recommendation to further develop the 2014 concept note developed by the Project on managing empty containers.¹⁷ However, the evaluation team was not able to find anything further in writing.

¹⁴ Inception workshop, December 2018

¹⁵ Brhan Araya 2016. Integrated Pest Management through Farmer Field Schools. Eritrea Ministry of Information. Shabait.com. Serving the truth

¹⁶ Global Meeting-MoAFAO-Progress Report 2018.ppt

¹⁷ Container management concept.doc

87. More details of the disposal strategy need to be hammered out and put into writing. The plastic containers still need to be transported to the site, shredded (a shredding machine exists at the Scarico landfill) and then triple washed before gasification. No plan exists so far for how to deal with the water used for washing other than to store it for possible future disposal overseas. The potential expense of dealing with this contaminated water remains a problem with the strategy. Also, it is not clear after the backlog has been cleared if and whether regular collection and disposal of empty containers will take place using the gasification plant.
88. With respect to contaminated metal containers, 792 contaminated metal drums have been washed, cut so they take up less space and stored at Daeropaolos store. About 500 drums remain to be safeguarded. Due to the high level of contamination, all the drums are earmarked for disposal abroad, together with the obsolete pesticides. These drums await disposal at Daeropaolos Store.¹⁸
89. The empty container recycling scheme was not piloted in Maekel Region as intended (Output 2.9). Some exploration was carried out as to whether plastic containers could be recycled by a plastic recycling plant. The idea was apparently abandoned over concerns that contaminated plastic would be used in products that would be used for food.

Finding 8 on PSMS: The Project has not institutionalized the FAO PSMS nor attempted to implement alternatives. The decision was made to halt work on the FAO PSMS because of inadequate internet access (EQ 2.5).

90. Plans were made to host the PSMS at the Regulatory Services Department within the MoA. The Ministry was implementing an Information and Technology project funded by the International Fund for Agricultural Development (IFAD) that would connect all institutions and link them to the regions. This would provide easy access to the PSMS from all institutions and regions. Securing adequate internet connectivity to run PSMS through the privately-owned internet provider EWAN Technology Solutions Inc. was estimated at US\$48 000 for two years.¹⁹ It was considered that meeting this cost would not be sustainable after the project terminated. Hosting the package through RSD (as opposed to dealing directly with EWAN) would be more economical (USD10 000 for 2 years) but this cost remains prohibitive and most likely not sustainable. After efforts to secure affordable adequate internet connectivity failed institutionalization of PSMS was cancelled. The PSMS tool has been under review by FAO's Information Technology Division since 2016 and is currently not available to countries.
91. Procurement of pesticides in Eritrea is centralized, with the government as sole importer. In theory this should make procurement and needs assessment easier to manage. The MoA has a database for obsolete pesticide stocks and it keeps a record of pesticide imports. However, a comprehensive system for capturing and managing all national pesticide data is lacking.

Finding 9 on pesticide legislation: The Project supported final review and submission of the draft legislation to the Ministry of Justice and translation into the local languages for possible submission to parliament by March 2019 and enactment by the end of the year. The Project has

¹⁸ Global meeting-MoA and FAO-Progress Report

¹⁹ BTOR 27 May to 7 June by Michael Hansen

not supported capacity building for implementation and enforcement of the legislation, as this will take place only after the legislation has been enacted (EQ 2.6).

92. A review of pesticide legislation was undertaken before implementation of the Project. The legislation is guided by the FAO International Code of Conduct on Pesticide Management and it is influenced by provisions of various international agreements and conventions on management of chemicals to which the country is party. The legislation is supported by regulations addressing specific stages of pesticide management. Implementation of these regulations will contribute towards the country's policy objectives of protecting natural resources by reducing pesticide risk to the environment.
93. The Project supported finalization of the draft legislation and submission to the Ministry of Justice in 2014. The review process included 8 government ministries, a government parastatal and 2 private companies. Following a recommendation from the Ministry of Justice the draft legislation was translated into Tigrina and Arabic. The quality of the initial translation carried out by a national consultant was not acceptable to the steering committee. The committee revisited the exercise and completed translation in 2016. In September 2018 the PSC requested support to hold a one-day workshop to validate the proposed amendments in view of the length of time that had elapsed since the revision was completed. A senior member of the PSC said that if the validation workshop was held in January 2019, the draft legislation could be submitted to Ministry of Justice by March and new legislation could be enacted before the end of 2019. The length of time it has taken raises questions as to the political will to pass the legislation.
94. Training of staff on implementation and enforcement of the new legislation will only take place after it has been enacted.

Finding 10 on pesticide risk awareness campaign: The Project has developed the material for an awareness campaign on pesticide risk and how to reduce it. The next step is to launch a concerted media campaign (EQ 2.7).

95. In 2007, as part of the Inventory project (see Section **Error! Reference source not found.**), a AP survey on the use of pesticides was carried out. The results were used to develop a communications strategy in 2009. The Project held a workshop in 2014 to review the strategy²⁰ and then put out a tender to develop communication material that could be part of a media campaign. Finalizing and signing of this initial tender was delayed for over a year, and the job had to be re tendered. A local communications company was awarded the tender in mid-2017. A task force was assigned by the Project to work with the company and provide technical input. Materials were produced in English, Tigrina, Tigre and Arabic and included a booklet titled 'Pesticide safety. An introduction for smallholder farmers', 3 videos, a song, leaflets and posters on pesticide safety and a roll up giving a summary of the Project's achievements. The next step is to launch a concerted media campaign using the materials, something that can be done using government media channels without additional project funding. A follow-up KAP survey would be needed to establish the outcomes of such a campaign.

²⁰ Inception Workshop Report.doc

96. Annex 2 lists expected project outputs together with a percentage estimated by the evaluation team of level of accomplishment.

3.3 Efficiency

Evaluation question 3: How satisfactory was project implementation and execution in achieving outputs? How satisfactory was M&E?

Finding 11 on Project institutional arrangements: The Project's institutional arrangements and engagement strategy allowed for a high level of government recognition and ownership as well as the successful safeguarding and disposal of obsolete pesticides and associate material (EQ 3.1).

97. As described under EQ 2.1 above, the Project has been very successful in safeguarding and disposing 364tons of obsolete pesticides and hazardous waste. The institutional arrangement of having a disposal taskforce, as part of the PMU which reported and sought guidance from the PSC, proved fit for purpose. Through the PSC, the Project was able to obtain the support from the Basel and Rotterdam conventions to make three international shipments.
98. The PSC met 16 times over six years, which is more than stipulated in the Project document (twice a year). The evaluation team was impressed by the seniority of the members of the PSC, their length of tenure and their level of knowledge of the Project, compared to PSCs in similar projects in Mozambique and Botswana. The PSC sought to hold the Project accountable in ways not seen in Mozambique or Botswana. In three interviews, members of the PSC urged the evaluation team to pressure FAO to find ways to make good on key Project commitments, in particular to safeguard the contaminated soil at the Old Massawa Airport site.
99. The evaluation team met both the Minister of Agriculture and Minister of Health (the latter was unplanned), both of whom knew what the Project was doing, suggesting strong political recognition and support for the Project.

Finding 12 on co-financing: More than half of Project funding came through co-financing, most of it for component 1 on disposal. While it was not clear to the evaluation team how some of the co-financing figures were calculated, the numbers provided suggest a co-financing shortfall of US\$ 454,000 with funding taken from work on pesticide lifecycle management to plug the gap (EQ 3.2).

100. Over half of the POPs Project budget came from co-financing and over half of this came from the Government of Japan through the Safeguarding Project (GCP/ERI/017/JPN), see Table 5 and Table 6. Almost three quarters of the Safeguarding Project US\$ 1.5 million budget was spent on contracts for safeguarding and disposal of obsolete pesticides and POPs. The Safeguarding Project paid US\$ 484,000 to the company Veolia to incinerate 364tons of obsolete pesticides and associated waste in the UK, while the GEF Project contributed almost the same amount (US\$ 450,000).

101. CropLife's contribution was in the form of a grant toward safeguarding and disposal and in-kind contribution. The latter was in the form of machinery donated to the Project from previous CropLife safeguarding work and pesticides that had been previously safeguarded and repacked, that was included in the 364 tons shipped out by the Project
102. The Government of Eritrea provided in kind support in terms of: staff working for the Project Management Unit including a full-time National Project Coordinator; staff of four task teams (Disposal; Pesticide Management; IPM; and, Information and Communications); the time of pesticide convention focal persons liaising with the project; and, the time of government employees who were members of the Project Steering Committee, including the time of the Chair, the Director General of RSD.
103. The FAO contribution was two TCPs, one was the Safeguarding Project (see Section **Error! eference source not found.**) and the other concerned with IPM ⁱⁿ citrus. Both projects were due to finish in 2011. The EC contribution was in the form of US\$ 100,000 to fund IPM work in a project to enhance food security in the country. ²¹
104. Table 5 shows that there was a US\$494,000 shortfall in co-financing over the lifetime of the Project. The figures do not exist to say how the shortfall was distributed across Project components, but it is safe to say that both components 1 (disposal) and 2 (lifecycle management) will have suffered cuts because this is where most of the budget was allocated.
105. The GEF budget was overspent by US\$ 287,000 on component 1, perhaps to make up for the co-financing shortfall. At the same time, GEF funding was reduced to component 2 work by more than one third. Together with the cut in co-financing, it is likely that component 2 received less than half the planned budget. Not surprisingly, a number of component 2 outputs were not achieved, including setting up a pesticide control laboratory, establishing a pesticide stock management system and providing capacity building on implementing the new legislation. Some priority component 2 work did continue, notably work to deal with unwashed plastic containers. The decision to protect funding to disposal reflects the priority given to disposal in the Project document and by the Project Steering Committee.
106. The evaluation team were not able to find the figures to complete the co-financing column for the components at project completion in Table 5 The figures for completing Table 6 come from the latest PIR, generated by the Budget Holder. There is some disagreement and uncertainty surrounding them, for example, the NPC estimates that the Government of Eritrea's in-kind contribution is higher than stated. Part of the problem is that, according to the reporting requirements laid out in the Project document (see Table 6), a semi-annual report on co-financing should have been prepared by the NPC and TA, but was not. As a result, the evaluation team was not able to discover how some of the co-financing numbers had been generated.

²¹ ERI_Prodoc.pdf p. 41

Table 5: Project financing and co-financing by component at start and at mid-term²²

Components	At start			At Project completion		
	GEF	Co-financing	Total	GEF ²³	Co- financing	Total
1. Disposal	1,205,978	2,283,650	1,133,650	85,829		
2. Life cycle mgmt.	556,745	560,116	780,000	149,141		
3. Info and comms	141,228	18,000	1,439,600	229,918		
4. M&E	75,524	71,656	350,250	61,271		
5. Project mgmt.	170,525	275,731	3,703,500	526,159		
Totals	2,150,000	3,209,153	5,359,153	2,045,718	2,715,468	4,761,186

Table 6: Project financing and co-financing by donor at start and by time of MTE

Name of co-financer	At start			30 June 2018		
	In kind	Grant	Total	In kind	Grant	Total
Japanese Government	0	1,494,153	1,363,000		400,000	400,000
FAO	50,000	935,000	1,104,620		150,000	150,000
Govnt of Eritrea	195,000	55,000	807,400	300,000	150,000	450,000
EC	0	100,000	428,480	200,000	50,000	250,000
CropLife	380,000	0	2,340,500	500,000	750,000	1,250,000
Totals			3,209,153			2,874,468

Finding 13 on Project execution: The quality of Project execution was varied. The PMU and Budget Holder were able to assemble and support a competent Disposal team. Two other task teams make good progress on IPM and communications after safeguarding work stopped. Shortcomings included the lack of an office for the PMU and a failure to respond to Project Steering Committee requests for financial information.. (EQ 3.3).

107. GEF places an important distinction on project execution and implementation (Box 4). For this Project, execution refers to the day-to-day management which is the responsibility of the FAO Budget Holder (BH) and the Project Management Unit (PMU). Project implementation refers to technical oversight, project supervision, and evaluation which are the responsibilities of the FAO technical officers assigned to this Project, FAO GEF Coordination Unit as Funding Liaison Unit, and the FAO Office of Evaluation (OED), respectively. Maintaining a separation between execution and implementation is a requirement to meet GEF Minimum Fiduciary Requirements.
108. In the Project document the PMU was to include seven staff, six from MoA including a full-time National Project Coordinator to lead the Unit. It also was to include a full-time Environmental Coordinator provided by MoLWE (see Section **Error! Reference source not found.**).
109. According to the MTE in 2016: "Although the project envisages that the RSD of MoA is responsible for hosting the Project Management Unit, in practice a PMU office was not

²² According to GEF guidelines on co-financing, the actual amount of co-financing materialized should be confirmed by the evaluation team for projects that have completed an MTE. Hence the choice of 2016

²³ GCPBOT011GFF Budget Revision A- updated 22 Nov16.xls PSR summary

established. As a result, PMU is rather dysfunctional as there is limited communication among the PMU team, and more specifically between the RSD/MoA and MoLWE personnel in charge of the project who meet only sporadically. Communication is further complicated by the lack of functional phone lines, electricity disruption and lack of transportation.”²⁴ The MTE went on to say that the role of the MoWLE Environmental Coordinator was not clear.

110. As a result of this finding, the MTE recommended that “RSD/MOA and MOLWE to agree on a common PMU office (with internet connection) where PMU staff meet regularly to manage the project.”²⁵ This evaluation team found no evidence that the recommendation had been acted upon.
111. Four task teams reported to the PMU – Disposal; Pesticide Management; IPM, and; Information and Communication. Despite the lack of an office, the Disposal team, led by the NPC, was successful in safeguarding and disposing of 364 tons of obsolete pesticides and associated waste. However, the success was not without some controversy:
- Component 1 of the Project covering disposal was overspent by more than US\$ 250,000 which came as a surprise to the PSC. At the time, the overspend was blamed on the Disposal team travel and subsistence expenses, a necessary part of the cost of safeguarding and disposing of obsolete pesticides and associated waste in geographically dispersed locations. The overspend may not have happened were it not for a large shortfall in co-financing, most of which was earmarked for disposal (see Finding 12).
 - The level and amount of travel, subsistence and hazard allowances caused jealousies between the Disposal team and the IPM team who received less (e.g., the IPM team did not receive hazard allowances). The evaluation team found that the issue of unpaid allowances had not been resolved despite an MTE recommendation to do so;
 - According to the Project document, the Disposal team should have been led by MoLWE;
 - The MTE found that the PMU had placed too much emphasis on disposal, to the detriment of the other task teams and project components.
112. The latter was resolved after funding was cut for safeguarding and disposal work and the NPC had more time to support the work of the other task teams. The IPM task team in particular achieved much of what was expected in 2017 and 2018.
113. At the start of the Project, the Budget Holder was AGP. This changed in 2015 when the then FAO-R requested that the responsibility move to the FAO-Eritrea Office, in part because budget information was not being shared. In addition to being jointly responsible for day-to-day management of a project, the Budget Holder was responsible for overall project supervision. The person acting as Budget Holder was the chair of the Project Task Force which also consisted of the LTO and representatives from the LTU, the GEF Coordination Unit and any other technical units involved in implementation. It was the responsibility of the BH to make sure that PIRs are produced.

²⁴ ERI_MTE.pdf p. 35

²⁵ ERI_MTE.pdf p. 48

114. Being responsible for both overall supervision and day-to-day management of a project would appear to contravene the GEF Minimum Fiduciary Requirement to keep the two functions separate. The GEF Coordination Unit agrees that there is an issue with the separation of the two functions with older FAO-GEF projects.
115. One of the responsibilities of the Budget Holder was to provide budget information to allow the PSC to fulfil its advisory role (see Section **Error! Reference source not found.** for more on the role of PSC). The MTE found that this information had not been forthcoming and recommended that the Budget Holder prepare a budget at component level to be shared at each PSC meeting. This evaluation found that two members of the PSC remained unhappy with the budget information they were being given while two others said component level budget information had been shared and the situation had improved.
116. The evaluation team saw first-hand, and were told, that staff in the FAO Eritrea Office were not able to generate the component level budget information being requested automatically. It was explained to the team that to do so required a mapping of budget codes onto Project components, which had not been done when AGP was the budget holder. This required FAO Eritrea staff to generate component level budget information by hand, which was laborious and time consuming. Efforts were made to help FAO Eritrea staff do the mapping which was ultimately unsuccessful. The evaluation team heard differing accounts as to what support was offered by AGP and was taken.

Finding 14 on Project implementation: The quality of project implementation was varied. Project procurement decisions often took longer than envisioned due in part to high staff turnover in the LTU and the large workload they were under. This led to delays in execution that contributed to four no-cost extensions being requested and given. Implementation staff agreed to a transfer of the Budget Holder to FAO Country Office in Eritrea and were aware of issues that emerged, and, despite efforts being made, were not able to adequately resolve them. There was no management response to the MTE despite GEF Coordination Unit reminders. (EQ 3.4)

117. The PSC is part of Project implementation, providing guidance and oversight to the day to day management of the Project. As described above, the PSC worked well in terms of meeting more often than originally envisaged, developing a keen interest, knowledge and understanding in the Project and holding the Project to account.
118. A key person supporting the Budget Holder, the PMU and the PSC was the Technical Advisor described in the Project Document as someone who should be internationally recruited to work full-time assisting the PMU in country. According to the MTE, the Technical Advisor took on a lot of responsibilities for reporting and planning. The TA left the Project in 2016, and was not replaced. The LTO took on some the TA's responsibilities but not all of them. Nevertheless, the Project made good progress on Component 2 and 3 (IPM and Communications). The MTE found that there was a "low level of ownership" of the Project linked to the view that the Project is an "external activity"²⁶ carried out by FAO. This evaluation team found that in December 2018 ownership of the Project was strong, at least for RSD/MoA. One possible explanation for

²⁶ ERI_MTE.pdf p. 36

the change is that with the departure of the Technical Advisor, national project staff took more responsibility, and with it, ownership.

119. One implementation shortcoming found by the evaluation team were delays in procurement and decision making. Delays compared to the timeline envisaged in the Project document led to four no-cost extensions. Examples of delays include:
- A slow start to the Project was blamed on the delay in recruiting the Technical Advisor to support the establishment and operation of the PMU.
 - A delay in procuring a communication campaign for more than a year required a re-tender and an overall delay of eighteen months.
 - A delay in contracting a consultant to design a landfill led to a delay in remediating a critical site at the old Massawa airport even though the PSC had agreed to a no-cost extension primarily for this purpose.²⁷
120. A main reason given for delays in procurement was changes in senior staff. The FAO-R changed four times since the beginning of the project. The Chief Technical Advisor changed in 2016 and the full-time Technical Advisor left and was not replaced. The Lead Technical Officer changed in 2017. Apparently, AGP had a large number of staff changes in 2016 and 2017 which affected project implementation also in Mozambique (GCP/MOZ/100/GFF). Another factor is that AGP staff are responsible for a large number of projects internationally – during 2016 when the CTA left, AGP was dealing with about 20 projects with a pesticide component.
121. The MTE produced seven recommendations. As with projects in Botswana and Mozambique, there was no written management response as required by the GEF Coordination Unit. For this Project, the Budget Holder did not reply to reminders from the GEF Coordination Unit. The MTE consultant did present his findings to the PSC. This evaluation team found that some of the recommendations were heeded.

Finding 15 on the design of the Project M&E system: The design of the Project M&E system was satisfactory although the requirement for quarterly reporting and the number of different types of report suggest this part of the M&E system was burdensome to comply with in full (EQ 3.5)

122. There was a clear and well-designed M&E plan described in the Project document, based on a results framework laying out indicators, baselines and targets for project objectives and outcomes. The indicators were generally SMART. The M&E plan stipulated roles and responsibilities and reporting requirements. The results framework was validated during the Project inception workshop.²⁸
123. Table 6 shows that the Project has or was supposed to produce 13 different types of report, two required quarterly, two required semi-annually and three every year. Over the six-year life

²⁷ Interview with members of PSC in December 2018

²⁸ According to ERI_MTE.doc although no evidence that this happened in Inception Report.doc

of the Project, full compliance would have resulted in the writing of over 100 reports, about 17 per year. This level of reporting appears to the Evaluation Team to be burdensome to comply with in full and, in the view of the evaluation team, not all necessary.

Table 7: Types, frequencies and description of reports required by the M&E system

Type of report	Description	Notes
Project Inception workshop report	Workshop held to help confirm Project indicators, baselines and targets	Workshop report completed, but no confirmation of Project indicators, etc.
Back to Office Reports (BTORs)	Prepared after supervisory and consultancy visits to the Project	15 seen by ET
Quarterly Project Progress Reports (PPRs)	Prepared by NPC with support from the TA and the M&E officer to be sent to the LTU and then to the GEF Coordination Unit for information	1 seen by ET (Jan to Dec 2017); 2 seen by MTR (Mar 2015, Jan 2016)
Quarterly Project Implementation Report (QPIR)	Required the Budget Holder to review approved work plans against actual performance and take and report on corrective action, copied to the GEF Coordination Unit	None seen
Semi-annual Project Steering Committee minutes	Prepared under the responsibility of the Chair of the PSC	16 meetings held; 6 sets of minutes seen
Semi-annual report Co-financing	Prepared by the NPC and TA as part of PPRs	
	None seen	
Annual Work Plan and (annualized) Budget	Prepared by PMU and submitted to PSC, LTU and Budget Holder for approval	1 seen for 2017
Annual Project Implementation Review (PIR)	Prepared by the LTU, with inputs from PMU and with reference to BTORs and quarterly reporting, sent to the GEF Coordination Unit	7 seen – good quality, useful
Annual Monitoring Review of FAO-GEF Portfolio	Prepared by GEF Coordination Unit based on PIRs from all projects in the FAO-GEF Portfolio	None seen
Request for project extension		4 in total (2016; 2017; 2018; 2019)
Mid-Term Evaluation (MTE)	Prepared by independent consultant contracted by GEF Coordination Unit	Completed in December 2016. No follow up of recommendations
Project Terminal Report	NPC with support from TA, no later than 6 months before the end of the project, submitted to the PSC and FAO, to be entered into FPMIS	Not done
Terminal Evaluation Report	Prepared by independent consultants contracted by FAO-OED	This Report, to be completed in April 2019

Finding 16 on the operation of the Project M&E system: The quality of operation of the M&E system varied. In summary, what worked well was PMU reporting on project progress to the LTU, and annual reviews carried out by the BH, LTO and the GEF Coordination Unit. The PSC met regularly and played their role. What did not work so well was reporting on budget and co-financing which constrained the PMU and PSC from managing and reviewing progress. The M&E

system proved able to flag issues but less able to follow up on measures to deal with them (EQ 3.6).

124. Aspects of the M&E system were implemented satisfactorily. Table 7 shows the types of M&E report the Project was expected to produce, filled out by the evaluation team based on a review of documentation made available, and interviews with key people responsible for Project implementation and execution. The table suggests that supervisory visits happened as planned and BTORs were subsequently written to a good quality. It shows that semi-annual PSC meetings took place. Annual PIRs and semi-annual (not quarterly) PPRs were written as planned. The evaluation team agree with the assessment that the PPRs were “written following a common format, are synthetic and really helpful to make project achievements, shortcomings and risks understandable to the reader.”²⁹ The PIRs are equally well-written and useful.
125. Reports that were not written, or found to be inadequate, were the QPIRs written by the Budget Holder, the semi-annual report on co-financing and the project terminal report.
126. A complaint of the PSC, flagged by the MTE in 2016, was that the PSC and PCU lacked budget information provided by project output to allow them to review work plans (see Finding 11). Part of the MTE’s first recommendation was for the FAO Country Office to “prepare a budget at least at component level, to be shared with the next PSC meeting and then periodically at each PSC meeting.”³⁰ According to the PSC chair, this did not happen as he expected.
127. A second shortcoming picked up by the MTE was that reports would remain unfinished in draft form. Issues would be flagged and left unresolved. The evaluation team found an example of this in the PSC’s concern that their request for the project to hire a design consultant to design the landfill near Massawa had not been heeded, even though dealing with contaminated soil in Massawa was a main reason for granting a no-cost extension.³¹
128. Table 7 shows that there were three requests for no-cost extension, which suggests that implementation took place much more slowly than originally planned. Slow procurement, staff hiring and changes in staff were some of the reasons given.
129. A fourth ‘exceptional’ no-cost extension was requested in December 2018 as a result of a concern expressed by the Steering Committee Chair and the GEF Focal Point to the evaluation team that the project has not yet dealt with the issue of contaminated soil at the Massawa Old Airport site, which had been a main reason for the previous extension. It was also requested because there remained about US\$150,000 unspent funds and the project was due to finish at the end of the month. A third reason for the request was that the feasibility study of the landfill site had recommended land farming, a type of bioremediation, which had not been considered previously and was a possible solution to the problem that was within the budget and timeframe of another extension. The extension was subsequently approved by the GEF Coordination Unit.

²⁹ ERI_MTE.pdf p. 37

³⁰ ERI_MTE.pdf p. 48

³¹ According to members of the PSC when interviewed in December 2018

130. The evaluation team found that limited progress had been made on the MTE recommendations, perhaps because the TA left soon after the presentation. The one recommendation where good progress was made was for the “NPC to ensure that the other project components (IPM, legislation, communication) are managed with the same attention as the safeguarding activities.”³²

3.4 Gender and environmental and social safeguards

EQ 4: To what extent and how did the project include gender, and environmental and social safeguarding in project design and implementation?

Finding 17 on gender mainstreaming: The Project did little to address gender in project design and implementation. The Project was written before GEF or FAO requirements to explicitly include gender mainstreaming or environmental and social safeguarding. The project was gender blind and did little to change after MTE recommended that gender mainstreaming be ensured (EQ 4.1).

131. When the Project was approved in 2011, there was no requirement from GEF or FAO to include gender mainstreaming³³ or environmental and social safeguarding in project design. Gender is not mentioned at all in the Project document.³⁴ Not surprisingly then, the 2016 mid-term evaluation (MTE) found “little evidence of gender mainstreaming policies in project implementation”.³⁵
132. The MTE evaluator analysed participation in Project activities and found that men predominated. He concluded that there is a need for the Project “to increase gender mainstreaming in all project activities”³⁶ and included a recommendation: “In addition, the Communication Plan should be made compliant with the UN and FAO policies on gender mainstreaming. Gender mainstreaming should be ensured whenever possible in the remaining activities.”³⁷ At the same time, he acknowledged that the Project may have little control in practice.

³² ERI_MTE.pdf p. 48

³³ According to FAO OED Guidelines, gender mainstreaming is “the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels.”

³⁴ Word search of ERI_Prodoc.pdf

³⁵ ERI_MTE.pdf p. 43

³⁶ ERI_MTE.pdf p.43

³⁷ ERI_MTE.pdf p. 49

133. This evaluation found that little had been done with respect to the MTE recommendation on gender. When asked, interviewees were at a loss as to what mainstreaming gender meant in practice. A review of project documents found no particular mention of gender in the Project communications strategy or the communication materials developed subsequently. Gender was mentioned in the farmer field school manual that mentions gender analysis and says it is “important to ensure a gender balance in the group of trainees and it is also important to include women facilitators in the program.”³⁸ The LTO used the final report of the Safeguarding Project to recommend that the government do more to encourage the participation of women in agriculture after finding that only three of the 25 trained IPM FFS facilitators were female.

Box 7. Minimum standards for gender mainstreaming

1. Gender analysis is incorporated in the formulation of all field programmes and projects, and gender-related issues are taken into account in project approval and implementation processes.
2. All programme reviews and evaluations fully integrate gender analysis and report on gender-related impacts in the areas they are reviewing (FAO,2013)

134. The Project may have responded more actively after the MTE if more specific suggestions had been provided. The MTE could have recommended the preparation of an Environmental and Social Commitment Plan (ESCP)³⁹ that would have listed actions for the project to take in order to achieve compliance with the standards in remaining project activities, e.g. collection of sex-disaggregated data in the final KAP survey that was planned, and mainstreaming of gender in communication and awareness products.

135. The Project should have been screened against the minimum environmental and social standards when these were developed in 2015. If the project was rated as having moderate or high risk the FAO should have facilitated completion of the Environmental and Social Risk Management training module by the LTO, CTA and NPC, to equip them to effectively support project compliance.

Finding 18 on environmental and social issues: With respect to social issues, the project did prioritize the safeguarding of the sites that represented the greatest immediate risks to human health over all other work, supported by the PSC (EQ 4.2). The development of a comprehensive communications strategy and production of multi-media material will contribute towards raised public awareness of risks posed by pesticides. Minimum standards for environmental safeguarding stipulated by GEF and FAO were met through the development of risk-based Environmental Management Plans, detailed feasibility studies for selection of a site for the proposed landfill

136. The global objective of the project “to eliminate risks from POPs and obsolete pesticides in Eritrea through the use of sound environmental management methods to dispose of existing

³⁸ FFS Manual for IPM in tomato_181005_1 p. 16

³⁹ FAO, 2015 Environmental and Social Management Guidelines.doc p.19

stocks and prevent further accumulation of POPs and obsolete pesticides⁴⁰ is geared directly towards environmental protection and improving living conditions of people near project sites. Disposal of obsolete pesticides is a complex and highly risky operation with risks being present along the whole chain from inventory, repackaging, transport and final disposal. Repackaging, transport and final disposal pose highest environmental risk⁴¹ and the safeguarding team is at particularly high risk due to possible contact with the chemicals or waste. The safeguarding team in Eritrea were well trained and no accidents that may have resulted in significant risk of contamination to the environment or human lives were reported.

137. In order to mitigate possible reputational risk for project donors and partners design and implementation of projects should ensure that environmental and social safeguards are rigorously enforced and responsibilities of stakeholders made clear. GEF and FAO provide guidelines to ensure that there are negligible negative environmental impacts associated with implementation of project activities. The criteria and minimum requirements on environmental and social safeguards that are to be applied to all GEF-funded projects are listed in the GEF 2015 policy document.⁴²The criteria relevant for this project include:
- Minimum standard 1: Environmental and social impact assessment
 - Minimum standard 2: Protection of natural habitats
 - Minimum standard 3: Involuntary resettlement
 - Minimum standard 4: Pest management
 - Minimum standard 8: Accountability and grievance systems.
138. In 2015, FAO published revised environmental and social guidelines for the management of risk in its strategies, policies and field projects⁴³ and all projects supported by FAO are required to meet minimum Environmental and Social Standards (ESS). Activities of the POPs project were linked directly to ESS1: Natural Resource Management; ESS2: Biodiversity, ecosystems and natural habitats and ESS5: Pest and pesticide management. Ideally environmental and social safeguards should be detailed during the project design process with the LTO screening and classifying the project, and where required ensuring that the relevant standards are triggered.
139. Although adherence to minimum standards required by GEF and FAO was not made explicit in project design, design and implementation of the Project included precautions and best practices that mitigated risks addressed by these standards. A detailed Country Environmental and Social Assessment⁴⁴ (CESA) was carried out as part of preparation for the project. Environmental assessments were carried out by independent external experts, meeting requirements for moderate or high-risk projects. An international consultant was engaged to develop a risk-based EMP to guide remediation activities. Duties of the consultant included

⁴⁰ GCP/ERI/014/GFF Project document

⁴¹ GEF World Bank, 2010. Reducing the human and environmental risks of obsolete pesticides.pdf

⁴² GEF, 2015. Policy_Environmenatal_and_Social_Safeguards_2015.pdf

⁴³ FAO, 2015. Environmental and Social Management Guidelines

⁴⁴ Country Environmental and Social Assessment (CESA) v01.8 2008 02 13

evaluating available alternatives for treatment including environmental impacts and social upheaval of nearby residents.

140. The Department of Environment in MoLWE issued environmental clearance for construction of a landfill for hazardous waste at Lahzien in sub District Foro in 2016. The project invested extra time and budget to carry out a second feasibility study to ensure that all environmental and social considerations had been attended to. The objective of the second feasibility study carried out by independent experts was to “contribute to better protection of public health and environment by reducing the risk posed by hazardous pesticides in the region⁴⁵”. The study confirmed suitability of the site which is uninhabited and not in close proximity to water sources. Involuntary resettlement was avoided although a small group belonging to a nomadic tribe would have to avoid using the area after the landfill has been constructed. There could still be merit in establishing an accountability and grievance system to facilitate timely response to future complaints that may arise related to adverse effects of project implementation, such as the proposed landfill.
141. Inclusion of stakeholders in the project design process affords opportunity for highlighting and integrating social concerns that are specific to the project sites or social groups. The project document identified two NGOs involved in raising awareness about risks posed by pesticides whose activities would be supported by the project (The Eritrean Social Marketing Group and Toker, a local agricultural NGO). However, no further mention is made of these groups during project implementation
142. Positive social impacts of the Project included investment in training and development of multi-media material to raise public awareness about safe handling of pesticides. The activities of components 2 and 3 of the project (strengthening pesticide life-cycle management and development of a comprehensive communication strategy) are geared towards achievement of long-term environmental benefits of reduced risk of contamination from obsolete pesticides. The GoE is also promoting the adoption of IPM strategies which maximize agricultural production without compromising the sustainability of agro-ecosystems. Sites were prioritized for safeguarding and remediation based on hazard posed to human health and ecosystems. Although remediation of contaminated sites was not completed, safeguarding and disposal activities demonstrated immediate benefits to the living conditions of people around project sites whereas benefits to the environment may only become evident with the passage of time. Other project activities could have been modified to reduce risk, such as the EPC management strategy of triple rinsing which produces large quantities of contaminated water which may pose further risk to humans and the environment if not properly disposed.
143. The Project was concerned about the health of families and communities living in close proximity to pesticide stores. The evaluation team found frustration among PSC and PMU that the Project had not been able to safeguard and remove contaminated soil from the Old Massawa Airport nor demolish and remove Daeropaolos Store at Asmara. Both are in populated areas and are endangering human health. Indeed, the implicit priority towards

⁴⁵ Green Cross, 2018. Landfill feasibility study.pdf

safeguarding and disposal, as evident in where funding has gone, could be taken as evidence of concern dealing with clear and pressing danger to health and wellbeing.

3.5 Sustainability and scaling

EQ 5: How can Project results be sustained and scaled to achieve the Project goal?

Finding 19 on sustaining and scaling Project results: The Project has generated results that require different approaches to be sustained and scaled: some have developed a momentum of their own and require no further project intervention (self-sustaining, e.g. Government FFS / IPM rollout), some require further support to become self-sustaining (stepwise, e.g. UPC disposal) and some will always require public funding (contiguous, e.g. overseas disposal) (EQ 5.1).

144. The main project results with the potential to be sustained and scaled were identified by key project staff and stakeholders in the Inception workshop (see Section **Error! Reference source not found.**). The evaluation team validated the selection during their field trip and review of project documentation. The results are shown in the first column of Table 8 together with the actions the evaluation team and Inception workshop participants think are required to sustain and scale the result, and the underlying causal mechanism that will be necessary to achieve sustained impact.
145. In the fourth column, the evaluation team uses the three types of project result in Section 2.2 to indicate the project results they think can be sustained and achieve wider impact with little or no external (project) intervention (self-sustaining), which still require further investment to become self-sustaining (stepwise) and which will always require project funding (contiguous).
146. The analysis shows that the Project's main result of safeguarding and disposing of 364 tons of obsolete pesticides is contiguous in that it depended on several million dollars of funding, without which it would not have happened. Future safeguarding and international disposal will need a new project with new funding.
147. The Project's other main outcome of influencing government policy towards IPM is self-sustaining because IPM has recently been identified as one of the government's priorities for Ethiopia. The Ministry of Agriculture has stipulated that every ward should have a farmer field school. IPM can be expected to have a life of its own without further Project support. However, the length and success of that life will depend crucially on whether IPM lives up to expectations. There is a danger scaling IPM and farmer field schools out too quickly will overstretch the cadre of experienced trainers leading to poor quality of implementation. If unattainable expectations for IPM lead to a reduction in imports of pesticide, farmers could be left without crop protection, or having to rely on illegal imports.
148. The other outcomes are stepwise, in that they require future investment and action to deliver on their potential. Several outcomes were delayed and/or had their funding reduced to pay for disposal cost overruns.

Table 8: Expected project results, further actions, impact pathways and their underlying mechanisms

Project result	Further action required for the result to continue	Underlying mechanism that can sustain the result	Type of result	Impact pathways from ToC
Obsolete pesticides and associated material are safeguarded and disposed of	Requires continuous funding until all contaminated material and stockpiles are safeguarded and disposed of	Acceptance that safeguarding and disposal is a public good to be funded by the government while at the same time improving pesticide life cycle management to prevent future stockpiles	Contiguous	a
Competent safeguarding team established	Same as above	- Same as above		d, b
- Team sells its expertise to train teams in other countries	Contiguous	d, b		e, a
Empty container and contaminated sprayer disposal	Implementation of agreed disposal method (conversion by heat into fuel in a gasification plant)	Gasification plant is paid for by the fuel it generates and in turn pays for empty plastic containers (with likely necessary subsidy from government)	Stepwise	f, b
New pesticide legislation approved	Pesticide legislation is put into law and implemented	Sufficient political support to pass the legislation	Stepwise	i, j, b
IPM approaches developed and adopted	None - IPM enjoys strong political support and is written into government policy	The successful roll-out of farmer field schools across the country allows the approach to keep its political currency	Self-sustaining	k, l, c, b, c
Pesticide risk awareness campaign implemented	Roll out full-scale awareness campaign using materials already developed and measure results	Acceptance that there is a need for future awareness raising to be funded by government	Stepwise	

Finding 20 on Project impact: The Project has made reasonable progress towards its goal. Analysis of the Project's theory of change finds that the Project has made progress along 8 out of its 12 impact pathways. The Project has likely reduced existing and future risk from pesticides by: safeguarding and disposing of 364 tons of obsolete pesticides and associated waste; establishing and building the capacity of a competent safeguarding team; and, contributing to the nation-wide rollout of IPM/FFS. Pathways where more progress might have been expected include: safeguarding critical sites; EPC disposal; passing of pesticide legislation; and mounting an awareness campaign. Further work is required to sustain and amplify all pathways, in particular the ones where progress has not yet been made (EQ 5.2).

149. The fifth column of Table 8 shows the impact pathways in the Project theory of change (Figure 3) needed to translate the results into impact. The letters in bold indicate pathways where the evaluators have found evidence that the Project has made some real progress. Out of 12 pathways, the project has made progress along 8, indicating that the Project has made reasonable progress towards its goal.

150. The narratives of the 8 impact pathways can be written out. The three main ones are:
- The Project's safeguarding and disposal work has likely reduced risk to human health from existing stocks of obsolete pesticides and related contaminated material
 - The Project's safeguarding and disposal work has led to a competent national team, the existence of which will strengthen the country's management of the pesticide life cycle (if the team is used). Safeguarding and disposal of future stockpiles of obsolete pesticides will reduce the risk to human health in the future
 - The Project's successful work on IPM likely contributed to the decision by the Ministry of Agriculture to roll out IPM and farmer field schools across the country. This will likely lead to a reduction in the use of pesticides, at least in the short term. Whether that reduction is maintained, or if there is better use of pesticides, or if this leads to a reduction in future risk from pesticides, depends on the success of the roll-out.
151. Clearly, what needs to be done to further reduce risk from pesticides in Eritrea (the Project's goal) is to work on all the pathways. Much more needs to be done, starting with the priority actions listed in Table 8. With respect to IPM, it will be crucially important to support the nationwide roll-out of farmer field schools to ensure IPM is seen to be a viable alternative to indiscriminate use of pesticides.

4. Conclusions and recommendations

152. Footnotes indicate the findings that each conclusion is based on. The findings relate to the evaluation questions in the evaluation matrix (Annex 2). The recommendations indicate the conclusions from which they derive. Hence the reader can trace recommendations through conclusions and findings back to the evaluation questions.

4.1 Conclusions

153. Footnotes indicate the findings that each conclusion is based on. The findings relate to the evaluation questions in the evaluation matrix (Annex 1). The recommendations indicate the conclusions from which they derive. Hence the reader can trace recommendations through conclusions and findings back to the evaluation questions.

Conclusion 1. The Project is relevant to global and national efforts for reducing and eliminating risks due to pesticides.⁴⁶

154. The Project is relevant at global and national level. The Project's objective – to eliminate risks from POPs and obsolete pesticides in Eritrea and prevent further accumulation – contributes to SDG2 and SDG12, to FAO's strategic framework to increase sustainable food production and to GEF4's focus on POPs and sound pesticide management. The Project was aligned with the objectives of the Basel, Rotterdam and Stockholm Conventions. At national level, the Project contributed to a number of priorities identified in Eritrea's NIP on POPs, including increasing public awareness and reducing the impact of POPs on human health and the environment.

Conclusion 2. The Project's main successes have been the safeguarding and disposal of 364 tons of obsolete pesticides⁴⁷ and in contributing to the nationwide adoption of FFS and IPM⁴⁸. The Project did not achieve several important results relating to better pesticide life cycle management in part because funding was cut to spend on safeguarding and disposal⁴⁹.

155. The Project built a competent safeguarding team in the process of disposing of obsolete pesticides. The team can help reduce risk from obsolete pesticides in the future. However, in achieving the success, safeguarding and disposal took resources and attention away from other Project outputs. With respect to IPM, the Project is said to have influenced a recent government policy that every ward in the country should have an FFS. There is, however, a risk that FFS / IPM will be rolled out before there is adequate capacity to run large numbers of FFS across the country.

⁴⁶ Findings 1 to 3

⁴⁷ Findings 4, 5 & 12

⁴⁸ Findings 6 & 19

⁴⁹ Findings 7 to 10

156.

157. The Project made only a modest contribution towards addressing gaps in pesticide life-cycle management other than increased knowledge of and capacity to undertake IPM. Planned-for results that were partially achieved include:

- Pesticide legislation – a document originally drafted in 2008 was translated by the Project and now awaits further validation before passing into law
- Disposal of empty plastic containers – agreement reached to gasify and turn plastic containers waiting for an electricity supply and further detailing of the concept note requested by the MTE
- Awareness campaign on pesticide risk and how to reduce it – materials for a media campaign have been developed and the next step is to run the campaign

158. Plans that were cancelled include:

- Building of a central store for pesticides
- Establishment of a laboratory to test for pesticide residues
- Institutionalization of PSMS

Conclusion 3. While the Project achieved real success, there were shortcomings in the quality of some areas of Project execution and implementation that contributed to a three-and-a-half-year delay in finishing the Project. Delays were also a feature of POPs projects in Mozambique and Botswana reviewed by the same evaluation team. Delays were also a feature of the African Stockpiles Program,⁵⁰ suggesting the potential for lesson-learning across similar POPs projects⁵¹.

159. Execution, as defined by GEF, is the responsibility of the PMU and BH. The former was not properly established with an office to regularly meet and plan, that might have allowed greater participation from MoLWE. The BH role was moved from FAO Rome to FAO Eritrea, in part to improve access to financial information. Despite this, the MTE made a recommendation to improve financial information provided to the PSC, which was only partially accomplished. A lack of detailed reporting on expenditure of co-financing, as well as loss of information as a result of staff turnover, makes it impossible to know how co-financing was allocated to Project components.

160. Project implementation, as defined by GEF, is to do with project supervision. There were also shortcomings in the quality of some aspects of Project implementation, partly as a result of a high turnover in AGP staff in 2015 and 2016, and the large number of other projects for which they were also responsible. As a result, procurement was sometimes delayed which led to delays in execution. A result of the problems with execution and implementation was the need

⁵⁰ paper par_africa_102416_2.docx – IEG / World Bank (2016). Africa Stockpiles Program: Ethiopia, Mali, Morocco, South Africa, Tanzania, Tunisia. Project Performance Assessment Report. Report no. 108524, September

⁵¹ Findings 13 & 14

for four no-cost extensions and the Project finishing three and a half years later than planned. Nevertheless, the Project was able to adapt to delays and setbacks and deliver some extremely important outcomes that no one else could have delivered.

Conclusion 4. The design of the M&E system was fit for purpose. The system proved effective at raising issues but less able to follow up on measures to deal with them⁵².

161. The design of the Project M&E system was satisfactory except for the large number of reports specified in the Project document that would have been burdensome if all had been produced. The quality of the PIRs was high. Two shortcomings were: 1) the lack of a management response to the MTE and subsequent supervisory follow up; and, 2) the absence of detailed reporting on co-financing.

Conclusion 5. The Project worked to safeguarded the environment and human health by reducing current and future risk from obsolete pesticides and associated materials, including POPs. It did little to engage with gender⁵³.

162. The Project did little to engage with gender or social inclusion. Likely, more would have been done if gender and social inclusion had been written in from the start of the Project, and if the MTE recommendation to ensure gender mainstreaming had been much more specific.

Conclusion 6. The Project has produced three different types of result for which the approach to sustainability and scaling differ. In delivering the results, the Project has made progress along 8 out of 12 of its impact pathways towards its objective, which is acceptable given difficulties faced⁵⁴.

163. The three types of result produced by the Project are:
- Self-sustaining – the result needs no further project support to be adopted and scale, e.g., the work on IPM that has helped make IPM a national priority.
 - Stepwise – the result is interim and more needs to be done to become self-sustaining, e.g., the work on disposal of UPC. Other stepwise results include passing of pesticide measurement legislation and launching a public awareness campaign on the risk posed by pesticides
 - Contiguous – sustaining and scaling the result requires continuous and growing levels of funding, usually from government or donors, e.g. overseas disposal of obsolete pesticides using high temperature incineration.
164. The 12 Project impact pathways derive from the Project theory of change developed by the evaluation team based on the Project Document and Project implementation. Safeguarding and overseas disposal is expensive and can be sustained only when there are funds available. For other results, such as disposal of empty plastic containers, an underlying mechanism may

⁵² Findings 15 & 16

⁵³ Finding 17 & 18

⁵⁴ Finding 18 & 20

exist, for example, profit motive, that could see a sustainable solution put in place. The Project has made progress towards its objective, but less than expected, particularly with results that need an underlying mechanism, to make them work. Some results are still not achieved despite pursuing them for more than 10 years across multiple projects and no-cost extensions. The reasons why they have not worked should be unpacked before future attempts are made to finally achieve them.

4.2 Recommendations

Recommendation 1. To the Project Steering Committee (PSC) members to ensure steps continue to be taken to reduce risk from existing stocks of obsolete pesticides and associated waste (based on Conclusion 2)

165. It is recommended that the PSC mobilizes resources to:

- Export for high temperature incineration remaining quantities of about 30 tons obsolete pesticides (about 6 tons are safeguarded and about 24 tons requires safeguarding); 792 highly contaminated metal drums that have been cut, cleaned and stored at Daeropaolos Store; about 500 empty contaminated metal drums are yet to be safeguarded;
- Dispose of 70 tons of obsolete Actellic 2 % either by exporting it to the Ghedem Cement Factory for destruction by incorporating it into cement making processes, or by following recommendations contained in the Green Cross feasibility report to dispose of the waste in a local domestic landfill or a newly built landfill facility that will be designed to accommodate hazardous waste;
- Complete safeguarding of contaminated soil at Aligeder and 21 additional sites with heavily contaminated soil.

166. It is recommended that urgent action is taken to reduce risk to communities residing near Massawa Old Airport contaminated pits by implementing either of the recommendations contained in the Green Cross feasibility report. The following options were presented for decontaminating the Massawa site:

- If no contaminants besides fenitrothion are detected, the contaminated soil may be excavated and remediated through landfarming. This would be in line with the preference of the Governor of the Northern Red Sea Administration for a permanent and sustainable solution for the contaminated soil;
- If other contaminants besides fenitrothion are present, the contaminated soil should be safeguarded and disposed of in a dedicated landfill yet to be constructed.

167. The contaminated store at Daeropaolos should be demolished and rubble exported to a dedicated landfill for disposal. The site should then be remediated following expert recommendations for the activity.

168. It is recommended that funds are sourced for design and construction of the landfill for hazardous waste at Lahzien Hairere, Foro sub region. If the Government of Eritrea intends to request funding from FAO and GEF Environmental Assessments and EMPs will have to be conducted in line with these organizations' environmental and social safeguards.

169. PSC to consider requesting FAO (AGPMC and LEGN to review the draft pesticide legislation once more before the project closes to ensure the draft is in line with current developments (e.g. HHPs, the revised FAO/WHO Code of Conduct on Pesticide Management). The legislation has been in draft form for several years.

Recommendation 2. To the PSC members to continue to take steps to prevent further accumulation of obsolete pesticides and waste (based on Conclusion 2).

170. It is recommended that the PSC:

- Expedite the process to enact the revised draft pesticide legislation. Organize training to build capacity for national pesticide regulatory staff to implement the new legislation.
- Provide budgetary support to replicate IPM FFS on tomato in all regions and expand it to other crops.
- Finalize, put into writing and implement agreement with Scarico municipal landfill for recycling of empty plastic containers while at the same time facilitate the removal of remaining obstacles, e.g., lack of 3-phase electrical supply.
- Mobilize funds for construction of a central pesticide warehouse to be used for storage of pesticides for use in controlling migratory pests, storage of future stocks of safeguarded obsolete pesticides and storage of pesticides prior to distribution for use.
- Investigate options for accessing more affordable laboratory services, preferably within the region, for quantifying and characterizing pesticide contamination.
- Roll out the mass communications campaign to disseminate information on safe handling of pesticides and risks associated with pesticides and their waste.
- Request support from FAO to help re-evaluate if and what sort of pesticide stock management system is required to strengthen pesticide life cycle management. Assuming PSMS remains a priority, develop a system that is compatible with existing internet connectivity and an institutionalization plan which recognizes that this should go well beyond the adoption of a data management system.

Recommendation 3. To FAO and to the PSC to help ensure the success of nationwide roll-out of IPM / FFS in Eritrea (based on Conclusion 2):

171. This recommendation is made given the risk that nationwide roll-out of FFS may happen before FFS facilitators have been properly prepared. It is also made cognizant that FAO, in promoting IPM in Eritrea and elsewhere, must take some responsibility in ensuring broad adoption brings benefit to farmers. It is recommended that:
- FAO should support the conversion of the Project output “Farmer Field School for Integrated Pest Management in Tomato in Eritrea – A Facilitator’s Field Guide” into much shorter and simpler guidance, translated into local languages, aimed at the hundreds of FFS facilitators liable to be called upon to set up FFS as part of nationwide roll-out. The current document is too long and theoretical to be field guide. Part of the work would involve broadening the guidance beyond that for tomato.
 - Both FAO and the PSC should agree a joint strategy as to how they best support the roll-out of IPM in Eritrea such that the pace of roll-out is matched to the capacity to do it well, and FAO’s gender equality objectives are addressed.

Recommendation 4. To the PSC, FAO and GEF to learn lessons to improve implementation, execution and gender equity in future projects to reduce risk from pesticides in Eritrea and globally (based on Conclusion 3).

172. In Eritrea, it is recommended that the PSC, FAO and GEF:

- Ensure that the causes for delay in this Project (summarised in Conclusion 3) are acknowledged and avoided in any future proposal development for projects to reduce risks from pesticides.

173. Globally, it is recommended that, FAO and GEF:

- Streamline the reporting system expected of similar projects to what is practical, useful and commensurate with budget provided. Then make sure the reports are produced and uploaded into FPMIS or similar;
- In particular, ensure monitoring and detailed semi-annual reporting of co-financing happens and that a management response to mid-term evaluation findings is produced and acted upon;
- Carry out an after-action review based on Eritrea's and other POPs projects' experiences to identify and understand common patterns that may shed light on underlying mechanisms and structural issues that thwart gender equity and efficient and effective implementation leading to timely, equitable and sustainable outcomes.

Recommendation 5. To PSC and FAO to ensure gender is mainstreamed into plans to sustain and scale Project results and to FAO and GEF to mainstream gender into projects whose preparation did not follow FAO's environmental and social standards (based on Conclusion 5).

174. It is recommended that the PSC and FAO develop a plan for mainstreaming gender into future plans to sustain and scale Project results. At a minimum this should involve ensuring that gender-specific messages are incorporated into: the pesticide risk communication and awareness campaign; and, IPM guidance material. In general, the PSC and FAO should push to include gender equity considerations as part of their support to the roll-out of IPM and FFS in Eritrea.

175. It is recommended that FAO and GEF projects that started before the development of FAO's environmental and social standards should be screened against the minimum set, at least during the MTE. Staff of projects rated as having moderate or high risk should be given the Environmental and Social Risk Management training module and the project should prepare an Environmental and Social Commitment Plan (ESCP)⁵⁵. Implementation of the plan should be monitored to achieve compliance with the standards in remaining project activities.

Recommendation 6. To PSC and FAO to ensure that reducing the risk from pesticides remains a priority for the government (based on Conclusion 6).

⁵⁵ FAO, 2015 Environmental and Social Management Guidelines.doc p.19

176. This recommendation is made given that sustaining and scaling several Project results depends on continued government support for reducing the risk from pesticides.

- It is recommended that the PSC and FAO, individually and together, take opportunities to raise and maintain awareness of the risk from pesticides within the MoA, MoLWE and MoH.
- The suggestion is to link this to the PSC's and FAO's contribution to the successful roll-out of IPM.

References

Department for International Development. 2011. *DFID's Approach to Value for Money (VfM)*. (also available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/49551/DFID-approach-value-money.pdf)

FAO & WHO. 2014. *The international code of conduct on pesticide management*. Rome, FAO. (also available at <http://www.fao.org/3/a-i3604e.pdf>)

FAO. 2010. *FAO Pesticides disposal series 11. Country guidelines*. Rome, FAO. (also available at http://www.fao.org/fileadmin/templates/obsolete_pesticides/Guidelines/Y2566E.pdf)

FAO. 2010. *FAO Pesticides disposal series 14. The preparation of inventories of pesticides and contaminated materials Vol 1*. Rome, FAO. (also available at <http://www.fao.org/3/i1724e/i1724e.pdf>)

Hardcastle, P.D. 2008. *Thematic review of Darwin Initiative projects related to forest biodiversity*. Department of the Environment, Fisheries, and Rural Affairs, London, UK. (also available at <http://darwin.defra.gov.uk>)

Bibliography

- FAO and the Government of Eritrea.** 2016. Country Programming Framework 2017-2021. Eritea. (also available at <http://www.fao.org/3/a-br856e.pdf>)
- FAO OED Evaluation Manual.** 2015
- FAO.** 2010. Pesticide Disposal Series 14. The preparation of inventories of pesticides and contaminated materials Volume 1. Rome, FAO.
- Global Environment Facility. 2011.** *GEF focal areas strategies*. Washington D.C. (also available at https://www.thegef.org/sites/default/files/documents/GEF-5_FOCAL_AREA_STRATEGIES.pdf)
- Global Environment Facility. 2012.** *Principles and Guidelines for Engagement with Indigenous Peoples*. Washington D.C. (also available at https://www.thegef.org/sites/default/files/council-meeting-documents/C.42.Inf_03.Rev_1_Principles_and_Guideline_for_Engagement_with_Indigenous_Peoples.Sept_10%2C_2012_4.pdf)
- Global Environment Facility. 2017.** *GEF Gender Policy, GEF Gender Implementation Strategy, GEF Guidelines on Gender Equality*. Washington D.C. (also available at http://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.53.04_Gender_Policy.pdf)
- Global Environment Facility. 2017.** *Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects*. Washington D.C. (also available at <https://www.gefio.org/sites/default/files/ieo/evaluations/files/gef-guidelines-te-fsp-2017.pdf>)
- Global Environment Facility. 2017.** *Guidelines on the project and program cycle policy*. Washington D.C. (also available at http://www.thegef.org/sites/default/files/documents/EN_GEF.C.52.Inf_06.Rev_01_Guidelines_on_the_Project_and_Program_Cycle_Policy.pdf)
- Global Environment Facility. 2018.** *GEF Guide to advance Gender Equality in GEF projects and Programs* Washington D.C. (also available at <http://www.thegef.org/sites/default/files/publications/GEF%20Guidance%20on%20Gender.pdf>)
- Global Environment Facility. 2018.** *Guidelines on Co-financing*. Washington D.C. (also available at http://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.53.04_Gender_Policy.pdf)
- Global Environment Facility. 2018.** *Guidelines on the implementation of the policy on stakeholder engagement*. Washington D.C. (also available at https://www.thegef.org/sites/default/files/documents/Stakeholder_Engagement_Guidelines.pdf)
- Global Environment Facility. 2018.** *Updated policy on environmental and social safeguards*. Washington D.C. (also available at https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.55.07_ES_Safeguards.pdf)
- Global Environment Facility. 2019.** *The GEF Evaluation Policy*. Washington D.C. (also available at <https://www.gefio.org/sites/default/files/ieo/evaluations/files/gef-me-policy-2019.pdf>)
- Lekei, E. E., Ngowi, A. V., London, L.** 2014. *Farmers' knowledge, practices and injuries associated with pesticide exposure in rural farming villages in Tanzania*. BMC Public Health 14: 389 (also available at <http://www.biomedcentral.com/1471-2458/14/389>)
- Lessons learned brief form POPs project in FAO.** 2018.
- Mancini F., Bruggen A.H.C., Jiggins J.L.S., Ambatipudi A.C., and Murphy H.** 2005. *Acute pesticide poisoning among female and male cotton growers in India*. International Journal Occupational Environmental Health. (also available at <https://www.researchgate.net/publication/7629912>)

Patton, M. O. 2008. *Utilization-focused evaluation*. Sage publications

SAPReF. 2018. *Workshop report*. Johannesburg, South Africa

UNEP. 2011. Botswana National Implementation Plan (NIP) for management of persistent organic pollutants (POPs)

United Nations System in Eritrea. 2017. United Nations Development Assistance Framework 2017-2021. Eritrea. (also available at <https://www.unicef.org/about/execboard/files/UNDAF-Eritrea-2017-2021.pdf>)

World Bank. 2016. *Africa Stockpiles Program: Ethiopia, Mali, Morocco, South Africa, Tanzania, Tunisia*. Project Performance Assessment Report no. 108524,

PROJECT DOCUMENTS

- (1). ERI_Prodoc.pdf Project Document
- (2). Country Environmental and Social Assessment CESA Document V 01.8 2008 02 13
- (3). Country Programming Framework 2017-2021 for ERITREA
- (4). Global meeting- MoA and FAO-Progress Report 2018.ppt
- (5). GCP ERI 017 JPN 2018 Terminal Report
- (6). GCPERI014GFF GCPERI017JPN Inception Report 20130404_1000
- (7). ERI_MTE .pdf Mid Term review

BTOR

- (8). FAO Back To Office Report5 To 15 May 2014
- (9). FAO Back To Office Report9 To 14 June 2014
- (10). FAO Back To Office Report9 To 14 October 2016
- (11). FAO Back To Office Report13 To 28 April 2015
- (12). FAO Back To Office Report15 To 20 April 2013
- (13). FAO Back To Office Report16 To 21 May 2017
- (14). FAO Back To Office Report20 January To 3 February 2014
- (15). FAO Back To Office Report23 To 30 June 2011
- (16). FAO Back To Office Report24 To 30 September 2018
- (17). FAO Back To Office Report27 May To 7 June 2013
- (18). FAO Back To Office Report31 January To 1 February
- (19). FAO Back To Office Report31 July To 3 August 2018

BUDGET

- (20). Budget Review Justification_30 Oct 2017
- (21). Budget Revision GEF (last).xls
- (22). Copy of ERI014 (003).xls
- (23). Financial Statement GEF.pdf (1)
- (24). Justification for non-cost extension and budget revision to December 2018
- (25). Justification for budget revision Nov 2017
- (26). Work plan_Budget_ GCPERI014GFF_updated14122017

PIRs

- (27). GEF Project Implementation Review 2012-2013
- (28). GEF Project Implementation Review 2013-2014
- (29). GEF Project Implementation Review 2014-2015
- (30). GEF Project Implementation Review 2015-2016
- (31). GEF Project Implementation Review 2016-2017

(32). GEF Project Implementation Review 2017-2018

(33). GCPERO014GFF PIR_FINAL (1

STEERING COMMITTEE DOCUMENTS

(34). Minutes of 9th Steering Committee 09.02.2016

(35). Minutes of 12th Steering Committee 23.02.2017

(36). Minutes of 14th Steering Committee 08.12.2017

(37). Minutes of 15th Steering Committee 10.05.2018

(38). Minutes of 16th Steering Committee 16.08.2018

(39). Progress Report to 12th Steering Committee meeting

(40). Progress Report to 13th Steering Committee meeting

(41). Progress Report to 14th Steering Committee meeting

(42). Progress Report to 15th Steering Committee meeting

(43). Progress Report to 6th Steering Committee meeting

COMPONENT 1

(44). Feasibility Study Eritrea Landfill for Obsolete Pesticides Polluted Soil DRAFT November 2018

(45). Inspection of temporary store 02.06.2015

(46). Environmental clearance for the hazardous waste disposal site in Lahzien, Hairore, Foro sub region for contaminated soil of Massawa (NRS) Old Airport Area

(47). Northern Red Sea Regional Administration Department of Agriculture and Land. Geological study of selected Unkulu Landfill Site October 2015

COMPONENT 2

(48). Report on Jordan tour

(49). Regulation of pesticides in Eritrea Final Report - May 2008 (1)

(50). Progress Report for Class 2013

(51). FFS Manual for IPM in tomato_181005_1

(52). Container management concept

(53). Citrus Pest Survey FAO III

(54). PSMS-StoreListing 2013

(55). Draft pesticide proclamation December 2007

(56). Draft Labelling and Packaging Regulations_December

(57). Draft Pesticide Dealers Regulations_December

(58). Draft Pesticide Registration Regulations_December

(59). Draft Pesticide Storage Regulations_December

(60). Note on the options for disposal of empty drums

(61). Tomato IPM/FFS programme

COMPONENT 3

(62). Information and Communication Strategy Draft 2

(63). Eritrea Communication Strategy cleared

(64). AVIS Final: 1 Songs; 2 Videos; Graphics; Graphics GEF

COMPONENT 4

(65). ERI Tracking tool

(66). PMU minutes 9 December 2016

(67). PPR January to June 2017

(68). Work Plan

Appendix 1. People interviewed

	First Name	Last Name	Organisation and location	Role
1.	Adiom	Berhane	PSD	SAS/FS
2.	Alganesh	Ghebrekristos Berhe	FAO Eritrea	Programs assistant , Steering committee
3.	Asghedorn	Tewelole	FAO Eritrea	Programme Officer ,
4.	Aster	Redizghi	MoLWE	Director Environment and Management Division. Basel Convention Focal Point. , Member of the Steering Committee
5.	Baogen	Gu	FAO AGPMC	Senior Agricultural Officer. Pest and Pesticide Management Unit , Team leader
6.	Bereke	Okbamicael		FFS facilitator
7.	Bereke	Gebreselosi	MoA. Mendefera sub region	Head of Extension , FFS facilitator
8.	Elisabetta	Tagliati	FAO AGPM	Agricultural Officer , Lead Technical Officer
9.	Erimas	Asmolash	MoA	Head of Horticultural Unit , FFS Coordinator
10.	Erimas	Asmolash	MoA	Head of Horticultural Unit , FFS Coordinator
11.	Eyob	Syium Andom	Mendefera Sub Region	Head of Plant Protection , Member of the Steering Committee
12.	Eyob	Syium Andom	Sub-Zoba Mendefera	Head of Plant Protection , Member of the Steering Committee
13.	Ghenet	Tezfazion	FAO	Head Administrator , Administrator
14.	Giulia	Calcagnini	FAO AGPMC	Programme Officer , Programme Officer
15.	H.E. Arefaine	Berhe	MoA	Minister ,
16.	Hailezghi		Eri Bio diesel & recycling factory	Manager ,
17.	Hogos	Haile	MoA Debub Region	Head Plant Protection , Participated in project from 2016
18.	Ivy	Saunyama	FAO AGPMC	Agricultural Officer , Lead Technical Officer (LTO)
19.	Johannes	G/Welsi	RSD MoA	Safeguarding
20.	Kaleab	Haile	RSD MoA	National Project Coordinator
21.	Kaleab	Haile Mokonnen	RSD MoA	National Project Coordinator
22.	Kibrom	Asmorom	Environmental Assessment Division	Stockholm Convention Focal Point , Member of the PMU
23.	Kidane	Yohanes	MoA. RSD	Safeguarding team
24.	Kidane	Yohanes	RSD MoA	Safeguarding team
25.	Kuena	Morebotsane	GEF Coordination Unit	TCI-GEF Funding Liaison Officer ,
26.	Luwam	Mengs	AED	FFS
27.	Mengisteab	hailemichael	Mendefera Sub Region	Farmer , Participated in IPM FFS
28.	Michael	Yacob	Debub NARI	IPM TT
29.	Michael	Stephanos	Japan International Cooperation Agency	Liaison Officer , Donor
30.	Mogos	WeldeYohannes	Department of Environment. MoLWE	Director General. GEF Focal Point ,

31. Oxana	Perminove	FAO AGPM	
32. Prof	Aduḡna Haile	Hamelmalo College of Agriculture	Lecturer , National Consultant
33. Prof	Aduḡna Haile	Hamelmalo College of Agriculture	Lecturer , National IPM Consultant
34. Rezene	Ghiwet	Agricultural Inputs and Pest Control Services	Owner , Private Sector
35. Robel	Haste	PSD	SAS/FS
36. Robiel	Haile	PSD	SAS/FS
37. Saeed	Abubakar Bantie	FAO Eritrea	FAO Rep , Representative
38. Selam	Mehnteab	Ministry of Health	Director malaria program , Member of SC
39. Semere	Yohannes	MoLWE. Northern Red Sea Region	Head of the Environment Unit , Local authority responsible for contaminated Massawa soil
40. Sherit	Mekonnen	RSD MoA	Safeguarding/ Communication
41. Shida	Tekley	RSD MoA	Communication
42. Tekleab	Mesghena	Regulatory Services Dept. MoA	Director General , Chair of steering committee
43. Tekul	Berkia	MoA. Debub Region. Senefa Metera Sub Region	Director of Crop Production , Trained in FFS

Appendix 2. GEF ratings table⁵⁶

In order to facilitate comparison of GEF projects the evaluation team was asked to rate the success of the Project according to the GEF criteria following the usual six-point scale. The rating and comment for each criterion are given below. An overall rating is given at the bottom of the table.

GEF - FAO criteria/sub criteria	Rating ⁵⁷	Summary Comments ⁵⁸
A. ASSESSMENT OF PROJECT RESULTS		
1. Overall quality of project outcomes ⁵⁹	MS	
1.1. Relevance	HS	Project objectives are well aligned with FAO and GEF strategic objectives as stated in section 3.1. The Project is fully aligned with national policies & strategic objectives on POPs, and with main international chemical conventions to which the country is party.
1.2. Effectiveness	MS	The Project has had major successes in terms of disposing of 364 tons of obsolete pesticides and associated waste, building the capacity of a competent safeguarding team and influencing the decision roll-out IPM / FFS across the country. A number of important results were not achieved, but this should be seen in the context of implementation and execution challenges faced by the CPU.
1.3. Efficiency	MU	The Project could have been expected to achieve more considering it was extended by more than three years. There were long delays in procurement, the PMU was not properly established as a team and budget was not properly monitored allowing an overspend of more than US\$ 250,000 on safeguarding and disposal.
B. PROJECT IMPLEMENTATION AND EXECUTION RATING		
2. Quality of project implementation	MU	Project procurement decisions often took longer than envisioned due in part to high staff turnover in the LTU and the large workload they were under. This led to delays in execution. Implementation staff agreed to a transfer of the Budget Holder to FAO Country Office in Eritrea and were aware of issues that emerged, and, despite efforts being made, were not able to resolve them. The recommendations of the MTE were not proactively followed up.
3. Quality of project execution	MS	Despite shortcomings with the Budget Holder and the PMU, the Project was able to assemble a competent Disposal team. The PMU make good progress on IPM and communications after the MTE flagged an over emphasis on disposal. Eritrea is the only one of the three countries that initiated IPM FFS with a lot of support from the government.
C. MONITORING AND EVALUATION (M&E) RATING		
4. Overall quality of M&E	MS	
4.1. M&E Design	S	The Project M&E design was fit for purpose although the number of reports specified initially was burdensome and unnecessary
4.2. M&E Plan Implementation	MU	Monitoring reports were produced on a regular basis that allowed for issues to be identified. The PSC were well informed and took an active interest in Project implementation and execution. Shortcomings were: not providing some of the

⁵⁶ Please refer to the TOR for the GEF rating scheme used

⁵⁷ See rating scheme at the end of the document.

⁵⁸ Include reference to the relevant sections in the report.

⁵⁹ Assessment and ratings by outcome may be undertaken if there is added value. A composite scoring of all outcome ratings, however, is not advised.

		financial information requested by the PSC; lack of detailed reporting on co-financing; lack of follow up on MTE recommendations; and, leaving reports in draft form and not uploading them into the FPMIS (which made this evaluation harder).
D. SUSTAINABILITY OF PROJECT OUTCOMES		
5. Overall likelihood of risks to sustainability	ML	
5.1. Financial risk	MU	While there is a stated commitment on the part of the government (Minister of Agriculture, DG of Regulatory Services Department and from the MoLWE) there is no clear plan for budgetary support for components requiring further action after project termination. Financial viability of EPC strategy has not been made clear. Future disposal activities through high temperature incineration would need substantial funding and it is not clear if or when that funding will be available again.
5.2. Socio-political risk	L	Government has demonstrated great ownership & political will in this project and previous efforts on pesticide risk reduction.
5.3. Institutional risk	ML	There are concerns regarding conflicting priorities among partner departments. MoLWE was at odds with MoA in whether to prioritize dealing with contaminated soil in Massawa over completion of other project activities. MoLWE felt they had not been sufficiently involved in safeguarding activities.
5.4. Environmental risk	ML	Long term strategies for environmental protection (such as construction of a landfill and central storage warehouse, implementation of a strategy for EPC management) have not materialized

Annexes

Annex 1. Terms of Reference

Annex 2. Inception Report

Annex 3. Analysis of Project Outputs

Annexes are available to download at <http://www.fao.org/evaluation/en/>

PROJECT EVALUATION

**Terms of Reference for the Final
Evaluation of the Project
“Prevention and Disposal of Persistent
Organic Pollutants (POPs) and Obsolete
Pesticides in Eritrea Phase II Prevention
and Disposal of Persistent Organic
Pollutants (POPs) and Obsolete
Pesticides in Eritrea Phase II”**

GCP/ERI/014/GFF

GEF ID: 3987

OFFICE OF EVALUATION
November 2018

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Acronyms and abbreviations

BH	Budget holder
CD	Capacity Development
EM	Evaluation Manager
ET	Evaluation team
ETL	Evaluation team leader
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environmental Facility
NGO	Non-governmental organization
M&E	Monitoring and Evaluation
MR	Management Response
MTE	Mid-term evaluation
OED	FAO Office of Evaluation
PMT	Project Management Team
POPs	Persistent Organic Pollutants
ToC	Theory of Change
ToR	Terms of Reference

Introduction

1. This document presents the Terms of Reference (ToR) for the final evaluation of the Project entitled "Demonstration project for decontamination of POS contaminated soils using non-thermal treatment methods" (refer to Table 1 for a summary of the Project's information).
2. The ToR represent a guiding document for the Evaluation Team (ET) and the project's main stakeholders. The ToR briefly describes the Project and its key areas of work. The ToR sets out the purpose and scope of the evaluation, and presents a proposed evaluation work plan. This document has been shared with and commented upon by the Project Task Force, Project Management Unit and peer reviewed by the Office of Evaluation.

Table 1. Basic Project Information.

Region:	Africa
Country:	Eritrea
Project Title:	Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea Phase II Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea Phase II
FAO Project Symbol:	GCP/ERI/014/GFF
GEF ID:	3987
GEF Focal Area:	POPs
Project Executing Partners:	Ministry of Agriculture with: Ministry of Land, Water and Environment; Ministry of Health
Project Size (FSP/MSP):	FSP
Project Duration:	36 months
Date of Entry into Work Programme (MM/DD/YYYY)::	30 June 2009
GEF CEO Endorsement Date:	28 April 2011
Project Implementation Start Date/EOD :	1 Nov 2012
Proposed Project Implementation End Date/NTE:	30 October 2015
PPG/PDF Funding (if any) (USDm)	USD 50 000
Total Project Cost:	USD 5 360 000
GEF Grant Amount (USD):	USD 2 150 000
Total Co-financing amount as included in GEF CEO Endorsement Request/ProDoc:	USD 3 200 000

1 Background and Context of the Project

1.1 Background

3. The Government of Eritrea, the Food and Agriculture Organization (FAO) and the Global Environment Facility (GEF) recognized the importance of tackling issues on pesticide life cycle management. This Project was formulated to respond to the GEF's Global Environmental Objective which is the elimination of risks from POPs and pesticide residues in Eritrea through the use of environmentally sound management methods, and to prevent the creation of additional POPs or other environmental contaminants. This Project hopes eliminate the risks from the waste remaining from prior cleanup and disposal efforts and develop a local strategy for addressing pesticide life-cycle management in the future. Moreover, the Project aims to strengthen the legislative framework for hazardous waste management of unwanted pesticides and associated wastes in Eritrea.
4. The Project's overall objective is *"To eliminate risks from POPs and other obsolete pesticides in Eritrea through the use of sound environmental management methods to dispose of existing stocks and prevent further accumulation of POPs and obsolete pesticides. This will result in the reduced exposure of farmers, consumers and the public"*.
5. The Project has 13 sub - outcomes:
 - Outcome 1. Eritrea's existing stocks of POPs and other obsolete pesticides safely destroyed and strategies for the remediation of contaminated materials, including soils developed and demonstrated
 - Outcome 2. Strengthened capacity for pesticide life-cycle management
 - Outcome 3. Raised awareness of pesticide hazards and risk reduction
6. The Project is implemented at two levels, at the National Level, the Project focuses on pesticide policy and strategy formulation, harmonization of regulations and institutional reforms. At the provincial level, the Project has field implementation for the disposal of pesticide containers and treatment of contaminated soil.

2 Evaluation purpose

7. This Final Evaluation is a requirement of the donor. It is being conducted for both accountability and learning purposes of FAO, the project team and project partners participating institutions and national governments. The Final Evaluation and a synthesis of lessons learned document¹ will serve as an input to improve future project formulation and implementation of similar projects.

¹ This evaluation is part of a clustered evaluation approach of three POPs related project from GCP /BOT/011/GFF (Botswana), GCP /ERI/014/GFF (Eritrea) and GCP /MOZ/100/GFF (Mozambique) which will produce a synthesis of lessons learned document from the three final evaluations.

8. The main audience and intended users of the evaluation are:

➤ **Primary audience and users are:**

- The FAO Country Office, Project Management Team, members of Project Task Force in the FAO Headquarters and regional offices who will use the findings and lessons identified in the evaluation to finalize project activities; plan for sustainability of results achieved; improve formulation and implementation of similar projects;
- The Donors who will use the findings to inform strategic investment decisions in the future; and
- The National Government counterparts who will use the evaluation findings and conclusions for future planning.

➤ **Secondary audience and users**

- Other donors and organizations interested in supporting similar projects;
- FAO Regional and Sub-regional offices, and other FAO technical departments who are interested on the lessons learned identified by the evaluation;
- Other national governments who might be interested in similar approaches to pesticide life cycle management.

3 Evaluation scope

9. The Final Evaluation will assess the results achieved by the project throughout its implementation period from November 2012 to November 2018, covering all activities that have been implemented. The Evaluation will assess the pre-conditions and arrangements that are in place to adequately implement the planned activities. In addition, the Evaluation will also assess the effectiveness of the project's governance mechanism along with the linkages and/or partnerships between the project and other major country initiatives.
10. The evaluation will use a **cluster approach**. This means that this project, together with two other Persistent Organic Pollutants – related projects in Eritrea and Eritrea that are due for final evaluations, will have a common evaluation management and evaluation team. This approach will decrease the overall cost and will enrich the analyses of the evaluation. The cluster approach will also produce a lessons learned document in addition to individual evaluation reports, to take stock on implementation of Persistent Organic Pollutants projects in East and Southern Africa, building from a similar lessons learned document from West Africa.

4 Evaluation objectives and Evaluation questions

11. The Final Evaluation has the following objectives:

- Assess relevance of the project strategy, and quality² of project design and implementation arrangements;
- Assess results (including intermediate outcome, long term outcomes and pathways of outcome to impact); gaps and challenges in achieving its intended results; and opportunities or risks to sustainability;
- Identify lessons from project implementation.
- Rate the project according to the prescribed GEF rating scheme

4.1 Evaluation questions

12. The evaluation will be results-based and its main purpose is to assess the progress in the implementation and achievements of the project, and identify strengths, weaknesses, gaps/challenges, opportunities and lessons learned. The Evaluation Questions will be the main tool to analyze the project's performance, synthesize conclusions and produce recommendations to improve on the remaining implementation of the project and strengthen sustainability of positive results and learn from project results.

13. The Evaluation Questions will be cross-cutting in nature. The Evaluation Questions described below will focus on results, and will be used to guide the overall assessment. Sub-questions will be further elaborated in an Evaluation Matrix to answer the main Evaluation Questions in a comprehensive manner.

Evaluation Question 1: To what extent did the project design and implementation aligned to the strategic objectives of reducing, eliminating production, management of POPs by FAO, GEF, and the National Government?

14. *Evaluation Question 1 will focus on the relevance and ownership of the project.*

Evaluation Question 2: How successful has the project been in delivering expected outputs and outcomes (both quantitative and qualitative) aimed at reducing the risk to public health and the environment posed by poor pesticide management and obsolete pesticide waste?

15. *Evaluation Question 2 will look into effectiveness and impact.*

² Under the assessment of quality the following aspects will be looked at: project's theory of change and impact pathway, including the assumptions; the efficiency and effectiveness of the implementation arrangements.

Evaluation Question 3: How efficient was the project design, management and implementation in meeting objectives and achieving expected outputs and outcomes? And what role did Monitoring and Evaluation play in improving project management and overall efficiency?

16. *Evaluation Question 3 will focus on efficiency, relevance, project design, preparation, readiness of partners to engage with the project, project management and oversight, budget and financial management, M&E and communication.*

Evaluation Question 4: What impact did the project have on the development or promotion of partnerships? How has stakeholder involvement affected the achievement of project objectives?

17. *Evaluation Question 4 will be centered on the results and challenges related to efficiency and partnerships.*

Evaluation Question 5: To what extent can the project's current and potential results be up-scaled, replicated or serve as a catalyst for future interventions?

Evaluation Question 6: To what extent did the project planned for sustainability and considered cross cutting issues such as gender, governance and social inclusion?

5 Methodology

18. The evaluation will adhere to the United Nations Evaluation Group UNEG Norms & Standards³ and will be in line with the OED Manual and methodological guidelines and practices. It will follow a participatory process and adapt a consultative and transparent approach with internal and external stakeholders throughout the evaluation process, ensuring consultations are carried out with a wide range of stakeholders.
19. The evaluation will be results-focused. It will develop and use a Theory of Change of the project to inform the analysis of the contributions made by the project to the expected project results.
20. In general, the following qualitative and quantitative evaluation tools will be used to collect primary and secondary data and evidence and answer the main evaluation questions:
 - evaluation workshop to reconstruct the theory of change and to build ownership of the evaluation process.
 - desk-review of existing project documents and reports, to better understand the context and structure of the project and identify the project milestones.
 - semi-structured interviews with key informants, stakeholders and project participants and government authorities. Face to face interviews, phone or skype interviews will be carried as needed. Interviews will be supported by the evaluation matrix.
 - focus group discussions with beneficiaries at provincial level.
 - surveys and/or questionnaires through email to all relevant stakeholders with whom face-to-face interviews and/or skype calls or phone interviews cannot be conducted.
21. The selection for field visits was based on consultations with the project team, using the below criteria.
 - Level of results in the implementation of project activities ensuring representation of localities where activities are more advanced and countries with a slower progress;
 - Feasibility of travel.
22. Information related to the assessment of the project's **Relevance** will be collected through desk review of relevant pesticide related policies and strategies, FAO country programme frameworks, regional and national initiatives, among others. In addition,

³ <http://www.uneval.org/document/detail/21>

interviews with national project stakeholders and other stakeholders will be conducted.

23. For evaluation questions related to **Effectiveness**, multiple tools will be combined to answer the different sub questions. Including documentation review and interviews with the main partners, national participating organizations /associations and stakeholders and an exhaustive desk review of existing project documentation (e.g. baseline and end line surveys). The evaluation will examine the appropriateness of the plans and arrangements set up to implement the related activities. For each of the assessed results, the evaluation will seek to identify the factors both positive and negative that have influenced the results and provide specific recommendations to further improve project performance, sustainability or future design. If possible, counterfactuals and attribution of initial results will be sought.
24. For evaluation questions related to **Efficiency** review of documentation (including M&E data, annual reports, etc.) and interviews with the project management, implementing partners and stakeholders will be the main tools. The evaluation will assess FAO's role as a GEF Implementing and Executing Agency. In addition, the evaluation will assess the added value of the Project's Co-financing.
25. Relevant information to answer questions under **Partnerships** will be collected through focus group discussions and interviews with project partners. A desk review of secondary information such as Letter of Agreements will feed into this assessment. The analysis of the project's effectiveness will also serve as inputs to answer this question.
26. In gauging **Sustainability**, evidences will be gathered to analyze and identify routes to impact. In addition, risks to Financial, Social-political, Institutional and environment, will be assessed.
27. Information related to **Gender, Governance** and **Social Inclusion** will be gathered through a desk review of project documents and interviews with project stakeholders, to understand what type of gender sensitive and equity focused activities the project has implemented. Particular attention will devoted to ensure that women and other under-privileged groups are consulted during the evaluation process.
28. **Capacity Development** as a way to deliver results will be assessed by looking into three dimensions, individual, organizational and enabling environment levels.
29. Triangulation of evidence will be critical in the analysis and will support conclusions and recommendations. Debriefing sessions at country level will be carried out at the end of the field visits, to validate preliminary findings.
30. The TOR of the evaluation and the first draft report will go through an internal OED peer review process to ensure quality prior to circulation with the project team. The conclusions and recommendations will be shared in the first draft of the report for feedback and comments by Project Management and main stakeholders. The report will be finalized after the comments are received. Suggestions will be incorporated as considered appropriate by OED and the Evaluation Team.
- 31.

6 Roles and responsibilities

32. The **Office of Evaluation OED**, Evaluation Manager (EM) will the support of the Evaluation Team (ET) is responsible for the finalization of the ToR with inputs from the Project Management Team.
33. The EM is responsible for the identification of the evaluation team members. EM will brief the project team on the evaluation process and will engage with them throughout the evaluation process. Moreover, the EM will brief the evaluation team on the evaluation methodology and process and will review the final draft report for Quality Assurance purposes in terms of presentation, compliance with the ToR and timely delivery, quality, clarity and soundness of evidence provided and of the analysis supporting conclusions and recommendations in the evaluation report.
34. OED also has a responsibility in following up with the Budget Holder (BH), and the Project Management Team for the timely preparation of the Management Response and the follow-up to the review.
35. The **Project Management Team (PMT)**, in consultation with the FAO representative, is responsible for initiating the evaluation process, providing inputs to the first version of the ToR, especially the description of the background and context chapter, and supporting the evaluation team during its work, including the organization of the evaluation missions. The PMT is required to participate in meetings with the evaluation team, make available information and documentation as necessary, and comment on the terms of reference and report. The BH, PMT and full project team can also contribute in the identification of the consultants for the evaluation team. The Project Management Team, on behalf of the BH, is also responsible for leading and coordinating the preparation of the Project Management Response and the Follow-up Report to the evaluation. OED guidelines for the Management Response and the Follow-up Report provide guidelines on this process. Involvement of different members of the project team will depend on respective roles and participation in the project.
36. The **Evaluation Team (ET)** is responsible for further developing and applying the evaluation methodology, for conducting the evaluation, and for producing the evaluation report. All team members, including the Evaluation Team Leader (ETL), will participate in briefing and debriefing meetings, discussions, field visits, and will contribute to the evaluation with written inputs for the final draft and final report. The ET will also be free to expand the scope, criteria, questions and issues listed above, as well as develop its own evaluation tools and framework, within time and resources available and based on discussions with the EM, consult with the BH and PMT where necessary. The ET is fully responsible for its report which may not reflect the views of the Governments or FAO. An evaluation report is not subject to technical clearance by FAO although OED is responsible for Quality Assurance of all evaluation reports.
37. The ET will maintain close liaison with the FAO Office of Evaluation and the Project Management Team. Although the mission is free to discuss with the authorities concerned anything relevant to its assignment, it is not authorized to make any commitment on behalf of the Government, the donor or FAO.

38. The ETL is responsible for guiding and coordinating the ET members in their specific work, discussing their findings, conclusions and recommendations and preparing the final draft and the final report, consolidating the inputs from the team members with his/her own. In collaboration with the EM, the ETL will finalize the report and ensure the received comments are incorporated, as deemed necessary.

7 Evaluation team composition and profile

39. The evaluation team will comprise the best available mix of skills that are required to assess the project, and as a whole, will have expertise in all the following subject matters:
- Agriculture
 - Project Evaluations
 - Pesticide Management
 - Soil Science
40. The evaluation team will have had no previous involvement in the formulation, implementation or backstopping of the project. All will sign the Declaration of Interest form of the FAO OED. To the extent possible, the evaluation team will be balanced in terms of geographical and gender representation to ensure diversity and complementarity of perspectives.

8 Evaluation products deliverables

41. The evaluation will produce the following deliverables:
- Evaluation Matrix - to be produced before the main mission scheduled on November 2018.
 - Theory of Change of the project, after consultation and validation with project stakeholders.
 - Draft evaluation report - OED will review the zero draft of the evaluation report submitted by the evaluation team to ensure it meets OED's quality standards and criteria. The draft evaluation report will then be circulated to the PTF and stakeholders, for comments before finalization by OED; suggestions will be incorporated as deemed appropriate by the evaluation team.
 - Final evaluation report – will illustrate the evidence found that responds to the evaluation questions listed in the ToR. The report will be prepared in English, and will follow the OED template for GEF evaluation report template. Supporting data and analysis will be annexed. Translations in other languages of the Organization, if required, will be FAO's responsibility.
 - Aide memoires and debriefing presentation of preliminary findings.

9 Evaluation timeframe

42. The evaluation's timeframe and responsibilities are presented below.

Task	Estimated Dates	Duration	Responsibility
PLANNING PHASE			
ToR finalization	November 2018		EM & ETL with BH and PMT
Team identification and recruitment	November 2017	3 weeks	EM with BH and PMT
Mission organization and travel arrangements	November 2018	4 weeks	EM & ETL with BH and PMT
DATA COLLECTION PHASE			
Reading background documentation	November 2018	~1 week	ET for ToR development, preparation of the evaluation matrix
Briefing of the evaluation team ET by OED via skype	November 2018		EM, when necessary supported by PMT
Field mission, in country interviews, de briefing	November-December 2018	1-2 weeks	ET supported by PMT
REPORT WRITING - DISSEMINATION PHASE			
Drafting report / Zero draft for review by OED	January-February 2019	4 weeks	ET
Review by OED before circulation	February 2019	1 week	EM and ET to respond to comments
Internal OED quality assurance before circulation; Review report as per OED and peer review comments	February 2019	1 week	OED peer reviewer
First draft for circulation and comments	February 2019	2 weeks	PMT and other stakeholders
Revision of comments, review report and comments matrix	February 2019	1 week	ET and EM
Final draft and comments matrix for circulation	March 2019		ET and EM
Editing and layout	March 2019		OED
Final Report	April 2019		OED

Appendix 1. FAO - GEF Evaluation Criteria Rating Table and Rating Scheme

FAO-GEF Evaluation Criteria Rating Table

Each criterion receives a rating derived from the evaluative assessment in the main document.

GEF - FAO criteria/sub criteria	Rating ⁴	Summary Comments ⁵
A. ASSESSMENT OF PROJECT RESULTS		
1. Overall quality of project outcomes ⁶		
1.1. Relevance		
1.2. Effectiveness		
1.3. Efficiency		
B. PROJECT IMPLEMENTATION AND EXECUTION RATING		
2. Quality of project implementation		
3. Quality of project execution		
C. MONITORING AND EVALUATION (M&E) RATING		
4. Overall quality of M&E		
4.1. M&E Design		
4.2. M&E Plan Implementation		
D. SUSTAINABILITY OF PROJECT OUTCOMES		
5. Overall likelihood of risks to sustainability		
5.1. Financial risk		
5.2. Socio-political risk		
5.3. Institutional risk		
5.4. Environmental risk		

⁴ See rating scheme at the end of the document.

⁵ Include reference to the relevant sections in the report.

⁶ Assessment and ratings by outcome may be undertaken if there is added value. A composite scoring of all outcome ratings, however, is not advised.

Rating Scheme

A. Overall Outcome ratings⁷

Terminal evaluations take into account the project's results, logical framework, ToC and work plan. Mid-term evaluations can base outcome ratings on work plans and mid-term targets (if available).

Rating	Description
Highly Satisfactory (HS)	"Level of outcomes achieved clearly exceeds expectations and/or there were no short comings."
Satisfactory (S)	"Level of outcomes achieved was as expected and/or there were no or minor short comings."
Moderately Satisfactory (MS)	"Level of outcomes achieved more or less as expected and/or there were moderate short comings."
Moderately Unsatisfactory (MU)	"Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings."
Unsatisfactory (U)	"Level of outcomes achieved substantially lower than expected and/or there were major short comings."
Highly Unsatisfactory (HU)	"Only a negligible level of outcomes achieved and/or there were severe short comings."
Unable to Assess (UA)	The available information does not allow an assessment of the level of outcome achievements.

B. Project Implementation ratings (Assess Implementation and Execution separately)

Rating	Description
Highly Satisfactory (HS)	There were no shortcomings and quality of implementation / execution exceeded expectations.
Satisfactory (S)	There were no or minor shortcomings and quality of implementation / execution meets expectations.
Moderately Satisfactory (MS)	There were some shortcomings and quality of implementation / execution more or less meets expectations.
Moderately Unsatisfactory (MU)	There were significant shortcomings and quality of implementation / execution somewhat lower than expected.
Unsatisfactory (U)	There were major shortcomings and quality of implementation substantially lower than expected.
Highly Unsatisfactory (HU)	There were severe shortcomings in quality of implementation / execution .
Unable to Assess (UA)	The available information does not allow an assessment of the quality of implementation / execution .

⁷ See instructions provided in annex 2: Rating Scales in the "Guidelines for GEF Agencies in Conducting Terminal Evaluations for Full-sized Project", April 2017.

C. Monitoring and Evaluation Design or Implementation Ratings (Overall M&E design, Assess Design and Implementation separately)

Rating	Description
Highly Satisfactory (HS)	There were no shortcomings and quality of M&E design / M&E implementation exceeded expectations.
Satisfactory (S)	There were no or minor shortcomings and quality of M&E design / M&E implementation meets expectations.
Moderately Satisfactory (MS)	There were some shortcomings and quality of M&E design / M&E implementation more or less meets expectations.
Moderately Unsatisfactory (MU)	There were significant shortcomings and quality of M&E design / M&E implementation somewhat lower than expected.
Unsatisfactory (U)	There were major shortcomings and quality of M&E design / M&E implementation substantially lower than expected.
Highly Unsatisfactory (HU)	There were severe short comings in M&E design or M&E implementation .
Unable to Assess (UA)	The available information does not allow an assessment of the quality of M&E design / M&E implementation

D. Sustainability

Rating	Description
Likely (L)	There is little or no risk to sustainability.
Moderately Likely (ML)	There are moderate risks to sustainability.
Moderately Unlikely (MU)	There are significant risks to sustainability.
Unlikely (U)	There are severe risks to sustainability.
Unable to Assess (UA)	Unable to assess the expected incidence and magnitude of risks to sustainability.

Appendix 2: Project Co-financing Table

Name of the Co-financer	Co-financer type ⁸	Type of co-financing ⁹	Co-financing at project start (Amount confirmed at GEF CEO endorsement/approval) (in USD)			Materialized Co-financing at project mid-term (confirmed by the evaluation Team) (in USD)		
			In-kind	Cash	Total	In-kind	Cash	Total
Grand Total (in USD)								

⁸ Examples of categories include: local, provincial or national government; semi-government autonomous institutions; private sector; multilateral or bilateral organizations; educational and research institutions; Non-Profit organizations; Civil Society Organizations; foundations; beneficiaries; GEF agencies; and others (please explain).

⁹ Grants; loans; equity participation by beneficiaries (individuals) in form of cash; guarantees; in-kind or material contributions; and others (please explain).

Inception report

POPs cluster evaluation

**Demonstration project for decontamination of
POS contaminated soils using non-thermal
treatment methods in Botswana**

GCP/BOT/011/GFF

GEF ID: 3958

**Prevention and Disposal of Persistent Organic
Pollutants (POPs) and Obsolete Pesticides in
Eritrea Phase II Prevention and Disposal of
Persistent Organic Pollutants (POPs) and
Obsolete Pesticides in Eritrea Phase II**

GCP/ERI/014/GFF

GEF ID: 3987

**Disposal of Persistent Organic Pesticides (POPS)
and Obsolete Pesticides in Mozambique**

GCP/MOZ/100/GFF

GEF ID: 3986

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
November 2018

1. Background

1. The evaluation will use a **cluster approach**. This means that this Project, together with two other Persistent Organic Pollutants – related projects in Eritrea and Botswana that are due for final evaluations, will have a common evaluation management and evaluation team. This approach will decrease the overall cost and will enrich the analyses of the evaluation. Each project within the cluster will have a separate Terms of Reference and a Final Evaluation Report. The cluster approach will also produce a **lessons learned document** in addition to individual evaluation reports, to take stock on implementation of Persistent Organic Pollutants projects in East and Southern Africa, building from similar lessons learned document from West Africa.
2. **Botswana.** The Project's overall objective is *"Reduction of risk to public health and environment from pesticides through the detailed characterization, selection of treatment option, and decontamination of approx. 18.000 tonnes of POPs and pesticide-contaminated soil at the Sebele Farm site and associated sites in Botswana"*.
3. The Project has 13 sub - outcomes:
 - Outcome 1.1 Characterization of level and type of contamination at contaminated sites
 - Outcome 1.2 Commercially available non-thermal treatment options assessed
 - Outcome 1.3 Existing obsolete stocks and stockpiles of contaminated containers safeguarded and disposed of
 - Outcome 2.1 Revised pesticide and waste management legislation in place
 - Outcome 2.2 Systems supporting life-cycle management of pesticides instituted
 - Outcome 2.3 Review of pest control strategies and promotion of less toxic alternatives to pesticides
 - Outcome 2.4 Communications and awareness programme in place
 - Outcome 3.1 Soil Treatment option selected.
 - Outcome 3.2 Contaminated soil treated.
 - Outcome 4.1. M&E systems in place
 - Outcome 4.2 Project components implemented effectively and efficiently
 - Outcome 5.1 Institutional arrangements in place
 - Outcome 5.2 Planning and management effectively executed
4. **Eritrea.** The Project's overall objective is *"To eliminate risks from POPs and other obsolete pesticides in Eritrea through the use of sound environmental management methods to dispose of existing stocks and prevent further accumulation of POPs and obsolete pesticides. This will result in the reduced exposure of farmers, consumers and the public"*.
5. The Project has 3 Outcomes:
 - Outcome 1. Eritrea's existing stocks of POPs and other obsolete pesticides safely destroyed and strategies for the remediation of contaminated materials, including soils developed and demonstrated
 - Outcome 2. Strengthened capacity for pesticide life-cycle management
 - Outcome 3. Raised awareness of pesticide hazards and risk reduction
 - Outcome 4. Project monitored and evaluated effectively

6. **Mozambique.** The Project's overall objective is *"to reduce the risks posed by POPs and pesticides wastes in Mozambique through the development of a national risk profile of contaminated sites and other POPs/pesticide contaminated materials. The project will result in the development of detailed site-specific waste management plans followed by the development and implementation of a national strategy for effective POPs waste management for existing and potential future wastes"*.
7. The Project has six sub-outcomes:
- Outcome 1.1 The containment and removal of buried pesticides at prioritized high-risk locations thus preventing continuing environmental contamination and public health risks
 - Outcome 1.2 Removal and safe treatment of all old pesticide containers produced as a result of the implementation of past projects
 - Outcome 2.1 The development of a sustainable system for container management in collaboration with the pesticide industry
 - Outcome 2.2: Institutional capacity developed and national pesticide management policy strengthened to ensure the risk to the environmental and public health from obsolete pesticides and associated wastes is minimized in the future
 - Outcome 2.3: Improved management of pesticides imported into Mozambique for agricultural and public health uses through all stages of the pesticide life-cycle and institutionalization of the Pesticide Safe Management Strategy (PSMS).
 - Outcome 3.1: Monitoring and evaluation systems will be put in place to ensure the project components are implemented effectively and efficiently.
 - Outcome 3.2: Project personnel from line ministries will be trained in the principles of project management which apply to a wide range of future challenges

2. Stakeholder analysis

8. A comprehensive list of key people, groups, and institutions that were involved in the project was compiled with the assistance of National Project Coordinators and the Chief Technical Advisor.
9. Based on the nature and extent of their involvement and their availability, stakeholders will be identified for participation in the inception workshop, face to face interviews, focal group discussions or interviews via Skype. Care will be taken to ensure that all groups are represented including project staff, GEF and FAO representatives, representatives from governments and donor agencies, private sector, NGOs with interest in the project and communities around project sites. The inception workshop is designed to provide an early opportunity for stakeholders to raise issues to be considered during the evaluation, as well as to identify key people to talk to not on the initial list.

3. Evaluation approach and methodology

3.1. Evaluation Approach

10. The evaluation takes a 'cluster' approach in which the same evaluation team evaluate three similar projects back to back over 30 days and then produce three evaluation reports and one synthesis publication. The approach is chosen to save money and maximize insight and learning. The three projects are:
 - "Demonstration project for decontamination of POPs contaminated soils using non-thermal treatment methods" GCP/BOT/011/GFF in Botswana.
 - "Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea Phase II Prevention and Disposal of Persistent Organic Pollutants (POPs) and Obsolete Pesticides in Eritrea Phase II" GCP/ERI/014/GFF in Eritrea
 - "Disposal of Persistent Organic Pesticides (POPs) and Obsolete Pesticides in Mozambique" GCP /MOZ/100/GFF in Mozambique
11. The evaluation is informed by the value for money framework¹ as well as United Nations Evaluation Group UNEG Norms & Standards² and will be in line with the OED Manual and methodological guidelines and practices. This is reflected in the five areas chosen for inquiry relating to relevance, efficiency, effectiveness, equity and sustainability, and impact.
 1. How relevant was the project to global and national efforts for reducing and eliminating risks due to obsolete pesticides, including POPs?
 2. How satisfactory was the project in implementation and execution in achieving outputs? How satisfactory was M&E?

¹ See [here](#)

² <http://www.uneval.org/document/detail/21>

3. How effective has the project been in delivering outcomes (both expected and unexpected)?
 4. To what extent and how did the project include social issues, including gender, in project design and implementation?
 5. To what extent and how can project outcomes be sustained and scaled to achieve broader impact?
12. A number of sub-questions further elaborates the evaluation questions. The sub-questions are based on an exhaustive reading of the project document and mid-term evaluation report and are fine-tuned during the inception workshop. The sub-questions are also chosen and worded such that answering them will provide a basis for the evaluators to rate project performance as per GEF requirements for Terminal evaluations. Judgment criteria for answering the sub-questions as well as sources of data and methods of analysis are shown in an evaluation matrix (Appendix 2).

3.2. Evaluation Tools

13. **Theory of Change (ToC)** will be one of the main methods to be used in the evaluation process. All the three projects do not have a Theory of Change; rather they have a log frame that describes the results logic. Common to all three projects is that the definition of outputs and outcomes are often used interchangeably. The Theory of Change exercise will build a logical progression, interlinkages, and feedbacks loops of outcomes. A draft TOC will be formulated by the Evaluation Team and validated by the participants in the workshop. Based on the TOC, the assumptions will be formulated and tested with various tools within the evaluation.
- a. Develop the TOC of the project through review of documents and initial discussions. Nuance the TOC to differentiate output level results and outcome level results. Validate the Theory of Change drafted before the workshop.
 - b. Conduct a formulation of Timeline of the Project and an After-Action-Review around the Outcomes of as stated in the TOC. This reinforces the validation process, nuances and enriches the TOC (refer to the workshop methodology in section).
 - c. Draft related assumption related to the TOC.
 - d. Test the assumptions to see if: (a) the precondition for the outcome is met or (b) the outcomes are met.
 - e. Collate the information in the Evaluation Matrix.
 - f. Use the information/findings/evidence from this exercise for triangulation and present in the (a) Final Evaluation Report and (b) as a separate report in the Annex.
14. The **Evaluation Matrix** will be one of the main methods in the evaluation process. The evaluation questions will be the backbone of the matrix. Judgment criteria will be developed with the project team and various stakeholders. Information and triangulation will come from various tools of data collection such as Systematic Desk Review, Key Informant Interviews, Focus Group Discussion, Field Validation Visits/Direct Observations
15. **Systematic Desk Review**

- a. Review the log frame and collect information on the targets, baseline, and the Source of Verification.
- b. Build a library of information, conduct a systematic analysis.
- c. Use the information/findings/evidence from this exercise for triangulation and present in the (a) Evaluation Matrix (b) Final Evaluation Report and (c) a separate table of output level achievements will be developed as an Annex.

16. Key Informant Interviews (KI)/Focus Group Discussion (FGD)

- a. Request information from the PMU on important stakeholders to engage for KI and FGD (most FGDs would be related to Field Validation Visits).
- b. Conduct a parallel stakeholder analysis through desk review and scoping interviews with the project team.
- c. Conduct KIs and FGDs.
- d. Use the information/findings/evidence from this exercise for triangulation in the Evaluation Matrix and present in the Final Evaluation Report.

17. Field Validation Visits/Direct Observations

- a. Request information from the PMU on essential results that can be seen in the field. It is important to see sites where the project did well, where the project did not do well, and where the project did not do any change.
- b. Conduct a parallel analysis of possible field validation visits through desk review and initial scoping with the project team.
- c. Conduct field visits.
- d. Use the information/findings/evidence from this exercise for triangulation in the Evaluation Matrix and present in the Final Evaluation Report

3.3. Evaluation Workshop

- 18. A vital part of the approach is to hold an inception workshop at the start of the evaluation team's visit to each of the three countries. The purpose is to build participants understanding and ownership of the evaluation process and results as well as to inform the evaluation. The decision to start with a workshop is the recognition that the project staff and implementers are in the best position to identify the most relevant results of the project. Based on various evaluation experiences³, evaluations that include those involved are more likely to produce that are accepted as useful and used. In addition, when people participate in evaluations, they are more likely to see it as an opportunity for learning, reflection, and improvement and are more able to be self-critical.

³ Paz-Ybarnegaray, Rodrigo, and Boru Douthwaite. "Outcome evidencing: A method for enabling and evaluating program intervention in complex systems." *American Journal of Evaluation* 38, no. 2 (2017): 275-293.

19. In this respect, this workshop will nuance results, gather evidence, and understand how results came to be. Participants will be encouraged to help build an understanding of how to best sustain and scale achievements. The workshop will be of value to the participants by allowing them to reflect together on what went well, not so well and what lessons they can learn for the future. Participants will have an opportunity to suggest recommendations the evaluation might make to reduce the risk from POPS and obsolete pesticides in the country.
20. Through close coordination with the project team, about 15-25 project staff and key stakeholders will be identified to attend the workshop. This would include FAO Project Staff, SC members, National Program Officer, Project Field Managers, representatives from the Ministry of Agriculture and Ministry of Environment Focal Point, etc.
21. Through a participatory process, the Evaluation Team will facilitate participants to meet the following objectives:
- To identify the Project's most significant achievements, both expected and unexpected, descriptions of how they were achieved and ways to validate causal claims relating to those achievements;
 - To develop a project theory of change based on outcomes achieved⁴;
 - To identify key challenges and if and how they were overcome;
 - To identify key insight and lessons learned (if you were to do it again, what would you do differently);
 - To seek inputs from project staff and stakeholders on the evaluation questions and judgment criteria;
22. The workshop will produce the following outputs:
- A listing of what project staff and stakeholders consider to be the project's most significant achievements together with documents and names of people that can validate causal claims relating to those achievements
 - A project Theory of Change
 - A listing of key challenges and description of how they were overcome
 - A listing of key insights and lessons learned by project staff and stakeholders
 - Changes to the evaluation questions that make the answers more relevant to project staff and stakeholders
23. The workshop will follow the following format:
- Timeline.
 - After-Action-Review.
 - Discussion on the way forward
 - Review of the TOC.
 - Review of the Evaluation Question.

⁴ The three projects do not have a theory of change

24. Agenda Overview of the workshop.

Day 1: Identifying key project outputs, outcomes, challenges, insight and learning[Evaluators refine the draft project theory of change based on inputs from the workshop and modify evaluation matrix based on output from Day 1]:

- Opening, introductions, expectations
- Introduction to key concepts and ideas
- Identification of significant project outputs and outcomes at different steps of the pesticide management life-cycle and for project management and M&E
- Identifying causal links between outputs and outcomes
- Identify key challenges and how they were overcome

Day 2: Input into project theory of change and evaluation questions

- Discussion and participant recommendations for modification of project theory of change
- Discussion and participant recommendations for modification of evaluation questions and refinement of judgment criteria

25. **Participants.** Through close coordination with the project team, about 15-25 project staff and key stakeholders will be identified to attend the workshop. This would include FAO Project Staff, SC members, National Program Officer, Project Field Managers, representatives from the Ministry of Agriculture and Ministry of Environment Focal Point, etc.

4. Site mapping and sampling

26. The evaluation team will visit each of the three evaluation countries for nine days, two days of which will be taken up in the inception workshop. The team will then split with one evaluator visiting remediation sites that are possible to reach within the time available. The decision was made to be more efficient in covering field mission and important interviews in and around the capital. During the field visits, key informant interviews will be held with project counterparts at the provincial level in the collaborating line ministries (agriculture, environment, health) as well as the private sector and community representatives close to contaminated sites. About 40 key partners and beneficiaries will be engaged during each visit. Special effort will be made to engage women and youth during community visits.

27. The field visits are described in the timeline below.

5. Limitations and risks

28. The **cluster approach** was applied to these three projects because of technical and administrative reasons. Technically, these projects almost have the same modus operandi, which makes sense to have a common umbrella of a "cluster evaluation" for lessons learning and comparability. Administratively, the projects in Botswana and Eritrea are subsidizing the project in Mozambique, which has a limited evaluation budget provision. The Mozambique project will benefit from an international and regional consultant, which it could not afford if it were a stand-alone evaluation.

In this respect, the missions needed to be one-after-the-other for budget and financial administration reasons. Besides, the projects in Botswana and Eritrea are ending in December. Hence there is an urgency that the missions need to proceed so that the Mozambique evaluation can take advantage of the clustering approach. The evaluation visits have been planned back to back, meaning the team go straight from Mozambique to Botswana and then on to Eritrea over 32 days. The main limitation to each of the three evaluations is the time that the evaluation team has to prepare for and then consolidate findings after the evaluation visits.

29. The team will do what is possible in the time available, but the expectation should be that the length and depth of three evaluations on a tight timeline will inevitably be less deep and thorough than three individual evaluations. On the other hand, the team will be able to produce a cross-case learning report that should be of real value in guiding future work to dispose of obsolete POPs. The cluster evaluation trades some depth for higher synthesis, and this should be recognized.
30. There was an urgency to complete terms of reference (only for Mozambique) at the same time as that fieldwork has started. The inception report is relatively on time, as stated in the OED guidelines that it should be submitted 1 week after the start of the main mission. However, the risks that some feedback may not be fully taken into account as the team's flexibility to make changes is reduced once country visits start.
31. Finally, the three projects began before the requirement to include gender mainstreaming during implementation and before the requirement to develop and work with a theory of change. The team expects that the usefulness of GEF and FAO guidelines for evaluating gender mainstreaming and for evaluating monitoring and evaluation will be limited.

6. Timeline and deliverables

Date	Day	Activity
MOZAMBIQUE		
17-Nov-18	Saturday	Travel
18-Nov-18	Sunday	Evaluation Team Meeting
19-Nov-18	Monday	Mozambique / day -1 Debriefing with FAOR/ De Briefing with Project Team/ Briefing by UNDSS
20-Nov-18	Tuesday	Mozambique / Workshop-day 2
21-Nov-18	Wednesday	Mozambique /Field Mission-day 3 (2 teams, one for Moziva and one for Motola-Maputo)
22-Nov-18	Thursday	Mozambique /Field Mission-day 4 (2 teams, one for Moziva and one for Motola-Maputo)
23-Nov-18	Friday	Mozambique /Field Mission-day 5 (2 teams, one for Moziva and one for Motola-Maputo)
24-Nov-18	Saturday	Mozambique /Field Mission- day 6 (2 teams, one for Moziva and one for Motola-Maputo)
25-Nov-18	Sunday	Mozambique /Field Mission-day 7 (2 team s meet in Maputo)
26-Nov-18	Monday	Mozambique /Field Mission-day 8 (Maputo Meetings)
27-Nov-18	Tuesday	Mozambique /day -9 De Briefing with Project Team /Debriefing with FAOR/Travel to Botswana
BOTSWANA		
28-Nov-18	Wednesday	Botswana /Briefing with Country Office and Project team (AM) / Workshop-day 1-Half day (PM)

29-Nov-18	Thursday	Botswana / Workshop-day2
30-Nov-18	Friday	Botswana / Workshop-day 3
1-Dec-18	Saturday	Botswana
2-Dec-18	Sunday	Travel to field
3-Dec-18	Monday	Botswana /Field Mission-day 4
4-Dec-18	Tuesday	Botswana /Field Mission-day 5
5-Dec-18	Wednesday	Botswana /Field Mission-day 6
6-Dec-18	Thursday	Botswana /Field Mission- day 7
7-Dec-18	Friday	Botswana /Field Mission-day 8/ De Briefing with FAOR
ERITREA		
8-Dec-18	Saturday	Travel to Eritrea
9-Dec-18	Sunday	Rest
10-Dec-18	Monday	Eritrea /day -1 day -1 Debriefing with FAOR/De Briefing with Project Team/Briefing by UNDSS
11-Dec-18	Tuesday	Eritrea / Workshop-day 2
12-Dec-18	Wednesday	Eritrea / Workshop-day 3
13-Dec-18	Thursday	Eritrea /Field Mission-day 4 or Interviews in Asmara
14-Dec-18	Friday	Eritrea /Field Mission-day 5 or Interviews in Asmara
15-Dec-18	Saturday	Eritrea /Field Mission-day 6 or Interviews in Asmara
16-Dec-18	Sunday	Eritrea
17-Dec-18	Monday	Eritrea /Field Mission-day 8 or Interviews in Asmara
18-Dec-18	Tuesday	Eritrea / De Briefing with Project Team /Debriefing with FAOR/Travel to duty stations

7. Stakeholders involved in the three POPs projects part of the Cluster Evaluation

Potential participation in the evaluation	Name	Role	Institution
BOTSWANA			
Interview in Gaborone	Motshwari Obopile	SC member/National MTE Consultant	Botswana College of Agriculture (BCA)
Interview in Gaborone	B. Lechina	Research Officer	DCP
Interview in Gaborone	K. Moasi	SC member	DCP
Interview in Gaborone	Loitseng Sebetwane	Registrar of Pesticides/ 1st NPC	DCP – Registrar of Pesticides
Interview in Gaborone	Mr Majaule	SC member	Department of Agricultural Research
Interview in Gaborone	H. Modiakgotla	Chief - Head of Plant Protection	Department of Crop Protection (DCP)
Interview in Gaborone	K. Sebua	Research Officer	Department of Crop Protection (DCP)
Interview in Gaborone	L. Kanelo	Research Officer	Department of Crop Protection (DCP)
Interview in Gaborone	Tshepo Mosedame	Research Officer	Department of Crop Protection (DCP)
Interview in Gaborone	C.Mbereki (NPC)	Research Officer	Department of Crop Protection (DCP)
Interview in Gaborone	G. Maseelane	SC member	Department of Public Health

Interview in Gaborone	S. Motladiile	SC member	Dept of Waste Management and Pollution Control (DWMPC)
Interview in Gaborone	Keletso Segokgo	Office Assistant	FAO Botswana
Interview in Gaborone	Molathlegi Modise	National Project Coordinator (full time and employed by project)	FAO Botswana
Interview in Gaborone	Rene Czudek	FAO Representative	FAO Botswana
Interview in Gaborone	Balosang J. Mmusi	Communications Officer	Min of Agriculture
Interview in Gaborone	Galeitsiwe Ramokapane	Director of Crops and Chairman of Steering Committee	Min of Agriculture
Interview in Gaborone	Tirelo Ditshipi	Communications Officer	Min of Agriculture
Interview in Gaborone	Hillary Masundire	National HHP/KAP Survey Consultant	Uni. Of Botswana
Interview in Gaborone	G. Bojase		University of Botswana
Interview in Gaborone	V. Obuseng	SC member	University of Botswana
Interview in Gaborone	Tshiamo Rantao	National Legal Consultant	
Interview in Project Site 1		Fábrica de Óleos	Private Sector Beneficiary
Interview in Project Site 1	Carla Albino	DPA	Provincial Government Min. Agriculture Focal Point
Skype interview	Baogen Gu	Budget Holder	FAO AGPMC
Skype interview	Elisabetta Tagliati	Lead Technical Officer	FAO AGPMC
Skype interview	Francesca Mancini	Lead Technical Officer	FAO AGPMC
Skype interview	Ivy Saunyama	Chief Technical Advisor	FAO AGPMC
Skype interview	Mark Davis	Budget Holder	FAO AGPMC
Skype interview	Richard Thompson	Lead Technical Officer	FAO AGPMC
Skype interview	Russell Cobann	LTO/Remediation Consultant	FAO AGPMC
Skype interview	Lalaina Ravelomanansto	FAO Legal Officer	LEGN
Skype interview	Andrea Rother	Pesticide Risk Reduction Consultant (HHP)	
Skype interview	Carlo Lupi	Mid Term Evaluation Consultant	
Skype interview	Colin Lang	Remediation Consultant	
Skype interview	Detlef Döhnert	Empty Pesticide Container Management Expert	
Skype interview	Harold van der Valk	Pest and Pesticide Management Consultant	
Skype interview	Joost Vlaming	Registration Toolkit Expert	
Skype interview	Livia LoyDona	Pesticide Risk Reduction Communication/Survey Consultant	
Skype interview	Roma Gwynn	IPM Consultant	
Skype interview	Vito Buonsante	International Legal Consultant	
ERITREA			
Interview in Asmara	Kuena Morebotsane	Project Liaison Officer	FAO CBC
Interview in Asmara	Alganesh Ghebrekristos Berhe	Project Officer	FAO ERITREA
Interview in Asmara	Asghedom Teklemariam	Assistant FAOR Programmes	FAO ERITREA
Interview in Asmara	Berhan Araya	Project Assistant/Communications Officer	FAO ERITREA
Interview in Asmara	Elsa Tekle	Procurement Officer	FAO ERITREA

Interview in Asmara	Ghenet Tezfazion	Assistant FAO R Administration	FAO ERITREA
Interview in Asmara	Mehreteab Gherewoldi	Driver	FAO ERITREA
Interview in Asmara	Paulos Andemariam	Programme Coordinator	FAO ERITREA
Interview in Asmara	Ousmane Guindo	Budget Holder (FAOR)	FAO ERITREA (FAOR)
Interview in Asmara	Adugna Haile	National IPM Consultant	Hamelmalo Agricultural College
Interview in Asmara	Tekle Berhan	SC Member	Ministry of Health (malaria Control)
Interview in Asmara	Mr Ghebrezgiher Hailemichael	SC Member	Ministry of Education (MoE)
Interview in Asmara	Aman Saleh	SC Member	Ministry of Health Malaria Control
Interview in Asmara	Kaleab Haile Mokonnen	National Project Coordinator	Regulatory Services Department
Interview in Asmara	TekleabMesghena	Chairman PSC/Project Director	Regulatory Services Department
Interview in Asmara	Leith Watson	Disposal Contractor	Veolia
Interview in Asmara	Tony Richards	Disposal Contractor	Veolia
Interview in Asmara	Adel Osman	Safeguarding team (paraquat)	
Interview in Asmara	Isaac Giorgis	Safeguarding team (paraquat)	
Interview in Asmara	Kibrom Asmerom	MoLWE	
Interview in Asmara	Kidane Yohanes	Safeguarding team (paraquat)	
Interview in Asmara	Michael Jacob	NARI (IPM TT)	
Interview in Asmara	Misghina Okbasiassie	PSD (M+E)	
Interview in Asmara	Shidan Tekley	MoA-RSD (Pesticide TT)	
Interview in Asmara	Tedros Seium AED	Communication TT	
Interview in Asmara	Teklit Andom	Safeguarding team (paraquat)	
Skype interview	Leula Mekonnen	SC Member	Eritrean and Crops and Livestock Corporation (ECLC)
Skype interview	Elisabetta Tagliati	Lead Technical Officer	FAO AGPMC
Skype interview	Isabelle Pierrard	Communications Expert	FAO AGPMC
Skype interview	Ivy Saunyama	International Consultant IPM FFS/ Lead Technical Officer/CTA	FAO AGPMC
Skype interview	Mark Davis	Budget Holder	FAO AGPMC
Skype interview	Michael Hansen	Chief Technical Adviser	FAO AGPMC
Skype interview	Mr. Alfredo Impiglia	IPM FFS International Consultant	FAO AGPMC
Skype interview	Richard Thompson	Lead Technical Officer	FAO AGPMC
Skype interview	Russell Cobban	International Consultant/Officer	FAO AGPMC
Skype interview	Bui Thi Lan	Budget Holder	FAO ERITREA (FAOR)
Skype interview	Wouter Pronk	Landfill Expert	Greencross Switzerland
Skype interview	Brigitte Nyambo	IPM FFS International Consultant	
Skype interview	Carlo Lupi	Mid Term Evaluation Consultant	
Skype interview	David Laycock	Pesticide Store/Stock Managemnent Consultant	
Skype interview	Kiran Virpathi	PSMS Internatioal Consultant	
Skype interview	Luciano Rovesti	IPM FFS International Consultant	
Skype interview	Mr. Ashraf Al Hawamdeh	IPM FFS International Consultant	
MOZAMBIQUE			
Briefing and De Briefing in Maputo	Olman Serrano	FAO Representant	FAO MOZAMBIQUE
Evaluation Workshop Participant	Lizi Mabote	SC Member	Agrifocus - Private company

Evaluation Workshop Participant	Carla Cuambe	Program Officer	FAO MOZAMBIQUE
Evaluation Workshop Participant	Khalid Cassam	National Project Coordinator	FAO MOZAMBIQUE
Evaluation Workshop Participant	Mauricio Sulila	SC Member	LIVANINGO?
Evaluation Workshop Participant	Luciano Gonçalves	Project Field Manager - Min Agric Technician	Min Agrc
Evaluation Workshop Participant	Egidio Bacalhau	Project Field Manager - Min Environment Technician	Min Environ
Evaluation Workshop Participant	Samson Cuamba	Project Focal Point at Min Environment	Min Environ
Evaluation Workshop Participant	Sidonio Cottage	Min Environment Officer	Min Environ (the focal point of Stockholm convention)
Evaluation Workshop Participant	Rosalia Naife	National Directorate for Environment	National Directorate for Environment
Evaluation Workshop Participant	Lucas Umusse	New Head of pest registration center	pest registration center
Evaluation Workshop Participant	Domingos Cugala		UEM/FAEF
Evaluation Workshop Participant	Anastacio Luis	Former Head of pest registration center	
Interview in Maputo	Claudia Pereira	FAO Representant Assistant - Program	FAO MOZAMBIQUE
Interview in Maputo	Júlio de Castro	FAO Representant	FAO MOZAMBIQUE
Interview in Maputo	Balbina FN Muller	Donor	Japan embassy
Interview in Maputo	Yuka Iwanami	SC Member	Japan embassy
Interview in Maputo	Mahomed Rafik Vala	National Director of Agriculture	Min Agriculture
Interview in Maputo	Pedro Dzucula	National Director of Agriculture	Min Agriculture
Interview in Maputo	Serafina Mangana	Plant Protection Head of Department	Min Agriculture
Interview in Maputo	Ana Cardoso	SC Member	Min Health
Interview in Maputo	Francisco Chuquela Langa	SC Member	Min Industry and Trade
Interview in Maputo	Momade Nemané	GEF Focal Point	Mozambique GEF Focal Person
Interview in Maputo		Jutiça Ambietal	NGO
Interview in Maputo	Buque / Fagildo	TECAP	Private Sector
Interview in Maputo	Muhamad Carolia	ABBA	Private Sector
Interview in Maputo	Osvaldo / Rohit	OLAM	Private Sector
Interview in Maputo	Sandra Chemane	SC Member	University
Interview in Maputo	Paula Pimentel		USAID
no action needed	Olga Silvia	Operation Officer	FAO MOZAMBIQUE
no action needed	Sandra Gomes	Operation Officer	FAO MOZAMBIQUE
no action needed	Silvia Cuambe	Operation Officer	FAO MOZAMBIQUE
no action needed	Abel Omar	Project Field Worker	
no action needed	Carlos Amilton	Project Field Worker	
no action needed	Elton Onesio Bacalhau	Project Field Worker	
no action needed	Francisco Banze	Project Field Worker	
no action needed	Hamiltom Mambo	Project Field Worker	
no action needed	João José Calimbo	Project Field Worker	
no action needed	Silvio Gove	Project Field Worker	
no action needed	Swidique Abdul Omar	Project Field Worker	
no action needed	Virgilio Vasco Cumbe	Project Field Worker	
Skype interview	Baogen Gu	Budget Holder	FAO AGPMC

Skype interview	Elisabetta Tagliati	Lead Technical Officer	FAO AGPMC
Skype interview	Francesca Mancini	Lead Technical Officer	FAO AGPMC
Skype interview	Ivy Saunyama	Chief Technical Advisor	FAO AGPMC
Skype interview	Kevin Helps	LTO	FAO AGPMC
Skype interview	Mark Davis	Budget Holder	FAO AGPMC
Skype interview	Richard Thompson	Lead Technical Officer	FAO AGPMC
Skype interview	Russell Cobann	LTO/Remediation Consultant	FAO AGPMC
Skype interview	Lalaina Ravelomananstoia	FAO Legal Officer	LEGN
Skype interview	Andrea Rother	Pesticide Risk Reduction Consultant (HHP)	
Skype interview	Carlo Lupi	Mid Term Evaluation Consultant	
Skype interview	Eloise Touni	Consultant M & E	
Skype interview	Harold van der Valk	Pest and Pesticide Management Consultant	
Skype interview	Livia LoyDona	Pesticide Risk Reduction Communication/Survey Consultant	

32. Also, in each of the field visits the following stakeholder will be targeted for interviews. Farmer or Farmer's group around the contaminated aream, Provincial Government; Private Sector, Provincial Government Min. Agriculture Focal Point, Provincial Government Min. Health Focal Point, Provincial Government Min. Environmental/Water Focal Point; Provincial Government Min. Industry and Trade Focal Point, Environmental NGO

8. Evaluation Matrix

Sub-questions	Judgment criteria	Sources of data and methods of analysis
1. Relevance		
<i>Evaluation question 1: "How relevant was the project to national and regional efforts for reducing, eliminating the production, management of POPs?"</i>		
To what extent and how was the project relevant to Mozambique's commitment to internationally ratified plans and conventions relating to POPs?	The project was relevant to GEF-4 POPs strategic objectives of reducing and elimination production, use and release of POPs	
To what extent was the project relevant to Mozambique's national policies relating to POPs?		
2. Efficiency		
<i>Evaluation question 2: How satisfactory was project implementation and execution in achieving outputs? (e.g., contaminated sites cleaned)</i>		
To what extent did the project's implementation and institutional arrangements support the achievement of project outputs?	<ul style="list-style-type: none"> - The hosting arrangements provided by MINAG have been satisfactory - The Project Management Unit (PMU) has received useful and timely guidance and leadership from the Project Steering Committee (SC) - The subcomponents were well managed 	

	- Expected outputs were delivered on-time	
To what extent has the project contained and removed buried pesticides at high-risk locations?		
To what extent has the project prevented continuing environmental contamination and public health?		
To what extent has the project removed and safely treated all old pesticide containers from past projects?		
To what extent has the project adopted and used the same operational standards as the GEF-supported Africa Stockpiles Programme?		
To what extent did the M&E system meet planning, accountability, and learning requirements?	<ul style="list-style-type: none"> - The M&E system was usefully able to track project implementation against work plans - Realistic goals and time frames were set for implementation - The M&E system allowed for learning and supported adaptive programming, where appropriate 	
3. Effectiveness		
<i>Evaluation Question 3: How effective has the project been in delivering outcomes (both expected and unexpected)?</i>		
To what extent was the project designed and implemented to achieve outcomes?	- The project coordination function and institutional arrangements, including joint project steering committees, were designed and functioned, in part, to promote and maintain ownership and healthy and active partnership	
To what extent and how has the project developed a sustainable system for container management with the pesticide industry?	<ul style="list-style-type: none"> - A system for managing containers has been developed in partnership with the pesticide industry - The system is being used 	
To what extent and how has the project developed institutional capacity to reduce the risk from pesticides and associated wastes?		Use of OED guidance on evaluating CAPDEV
To what extent has the project strengthened national pest management policy to reduce risk from pesticides and associated wastes?		
To what extent has the project improved management of pesticides imported into Mozambique for agricultural and public health purposes through all stages of the pesticide life cycle?		
To what extent has the project generated unexpected outcomes?		
To what extent is the PSMS functioning?		
4. Normative values and social inclusion (equity)		

<i>To what extent and how did the project include social issues, including gender, in project design and implementation?</i>		
Same as above	<ul style="list-style-type: none"> - A gender analysis was conducted at project design. - The project design includes specific gender indicators/targets or activities (at country or project/ regional level). - Gender was mainstreamed throughout the design. - Equal and active participation of women in project activities - Social safeguards were clarified and rigorously enforced 	
5. Sustainability and scaling		
<i>Evaluation question 5. What are the strategies and impact pathways by which early project outcomes can be sustained and scaled to achieve wider impact? How can the strategies and pathways be supported after the end of the project?</i>		
What are the risks to sustaining project outcomes, and are they likely to be mitigated or avoided?	- The risk	
To what extent can the project outcomes be up-scaled, replicated, or serve as a catalyst for future interventions?		