



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/82/13/Rev.1
6 December 2018

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-second Meeting
Montreal, 3-7 December 2018

DRAFT MONITORING AND EVALUATION WORK PROGRAMME FOR THE YEAR 2019

Introduction

1. This document presents the draft Monitoring and Evaluation work programme for 2019 for consideration by the Executive Committee. The monitoring and evaluation activities in the work programme have been proposed following previous discussions by the Executive Committee on issues pertaining to monitoring and evaluation; the review of progress reports of on-going projects and project completion reports; and on discussions with bilateral and implementing agencies and the Secretariat. The work programme has also taken into account discussions by the Executive Committee on several agenda items relevant to monitoring and evaluation activities.

2. Accordingly, the draft Monitoring and Evaluation work programme consists of the following:

Evaluation activities

- Second phase of the evaluation of pilot demonstration projects on ODS disposal and destruction
- Revised desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment
- Evaluation of the sustainability of the Montreal Protocol achievements
- Evaluation of regional networks of national ozone officers
- Evaluation of the energy efficiency in the servicing sector

Monitoring activities

- Consolidated project completion report (PCR) for multi-year agreement (MYA) projects and for individual projects

3. Additional issues of interest may arise during the implementation of the 2019 work programme that may need to be addressed by the Executive Committee. A certain degree of flexibility therefore might be allowed in its implementation as well as in the allocation of its budget in order to accommodate any such issues.

Evaluation activities for 2019

The second phase of the evaluation of pilot demonstration projects on ODS disposal and destruction

4. A desk study for the evaluation of the pilot demonstration projects on ODS disposal and destruction was presented at the 75th meeting.¹ At the time, the projects were still being implemented, it was therefore deemed too soon to undertake field visits. As all projects are now completed and a synthesis report on these pilot projects has been submitted to the 82nd meeting,² the second phase of the evaluation of these projects is being proposed. Field work will be needed to collect detailed data on management and financing modalities for ODS disposal in a selected number of countries, including low-volume consuming (LVC) countries. A final report will be presented at the 84th meeting. The terms of reference for the second phase of the evaluation are contained in Annex I to the present document. These terms of reference have given due consideration to the information contained in the synthesis report submitted to the 82nd meeting and the discussions of the members of the Executive Committee on the matter.

Revised desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment

5. The desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment³ was submitted to the 82nd meeting. During the discussion, members noted that the report contained useful information on various aspects of the preparatory activities of phase-out management plans; however, additional information was required in relation to the terms of references in paragraphs 9, 10, 17, 28 and 29. Therefore a revised desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment will be submitted to the 83rd meeting.

Evaluation of the sustainability of the Montreal Protocol achievements

6. The evaluation of the sustainability of the Montreal Protocol achievements as supported by the Multilateral Fund will cover various aspects related to *inter alia*: the regulatory framework, institutions and mechanisms that have been established with support from the Multilateral Fund to monitor the long-term sustainability of the phase-out of controlled substances as a result of the conversion of enterprises in the manufacturing sector and technical assistances and training programmes in the refrigeration servicing sectors; the roles and responsibilities of the national ozone units (NOUs) and the project management units (PMUs) established under the phase-out management plans and the role of institution strengthening; the regulatory framework, institutions and mechanisms that have been established with support from the Multilateral Fund to monitor the long-term sustainability of the phase-out of the production sector, including mechanisms to avoid redirection from non-controlled uses to controlled uses in production facilities that were funded for the phase-out of production controlled substances, but continue producing for non-controlled uses (e.g., feedstock). The terms of reference of the evaluation will be presented at the 83rd meeting and the desk study will be presented at the 84th meeting, at which point the Executive Committee may decide to have the subsequent report in several deliverables.

¹ UNEP/OzL.Pro/ExCom/75/10.

² UNEP/OzL.Pro/ExCom/82/21.

³ UNEP/OzL.Pro/ExCom/81/8/Rev.1.

Evaluation of regional networks of national ozone officers

7. The evaluation of regional networks of national ozone officers, to be carried out between 2019 and 2020. The evaluation will build on a previous evaluation⁴ presented at the 33rd meeting and will undertake a thorough assessment of the role of regional networks in the implementation of the Montreal Protocol, how they evolved over time, their impact at national, regional and global levels to identify opportunities and gaps that could further strengthen the network meetings to address the current challenges in effectively maintaining and sustaining the complete and permanent phase-out of controlled substances, and the phase-out of HCFCs and the phase-down of HFCs in accordance to the Montreal Protocol. The terms of reference of the desk study for this evaluation will be presented at the 84th meeting.

Evaluation of the energy efficiency in the servicing sector

8. At their 30th Meeting, the Parties to the Montreal Protocol requested the Executive Committee to “to build on its ongoing work of reviewing servicing projects to identify best practices, lessons learned and additional opportunities for maintaining energy efficiency in the servicing sector, and related costs”.⁵ The evaluation of the energy efficiency in the servicing sector will analyse, *inter alia*: the design of norms and standards for refrigerants and energy efficiency that favours the introduction of low-GWP technologies in the RAC sector; the promotion of energy efficiency in Article 5 countries and the local efforts to measure changes in energy efficiency outside of demonstration project. The terms of reference of the evaluation will be presented at the 83rd meeting.

Consolidated PCRs for MYA and individual projects

9. The Senior Monitoring and Evaluation Officer (SMEO) will work closely with relevant bilateral and implementing agencies to submit all outstanding PCRs related to MYA and individual projects to the 83rd and 84th meetings, and to identify options to streamline the preparation and submission of PCRs.

10. The consolidated PCRs will provide the Executive Committee with an overview of the results and lessons learnt as reported on the completion reports.

Schedule for submission

11. An overview of the activities contained in the proposed draft monitoring and evaluation work programme for 2019 is presented in Table 1.

Table 1. Schedule for submission of activities in the monitoring and evaluation work programme for 2019

83 rd meeting	84 th meeting
Consolidated MYA and individual project completion report	Consolidated MYA and individual project completion report
Revised desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment	Final report of the evaluation of pilot demonstration projects on ODS disposal and destruction
Terms of reference for the desk study for the evaluation of the sustainability of the Montreal Protocol achievements	Desk study for the evaluation of the sustainability of the Montreal Protocol achievements
Terms of reference for the desk study of the evaluation of the energy efficiency in the servicing sector	Desk study for the evaluation of the energy efficiency in the servicing sector
	Terms of reference for the desk study of the evaluation of regional networks of national ozone officers

⁴ UNEP/OzL.Pro/ExCom/33/7 and UNEP/OzL.Pro/ExCom/33/7/Corr.1.

⁵ Decision XXX/5, paragraph 5.

85 th meeting	86 th meeting
Consolidated MYA and individual project completion report	Consolidated MYA and individual project completion report
Desk study for the evaluation of the regional networks of national ozone officers	Final report of the evaluation of the sustainability of the Montreal Protocol achievements

Budget

12. Table 2 presents the budget for the monitoring and evaluation work programme for 2019. It includes the fees and travel costs for consultants as well as for the SMEO, who will participate in the case studies and attend regional meetings, as required.

Table 2. Proposed budget for the monitoring and evaluation work programme for 2019

Description	Amount (US \$)
Revised desk study for the evaluation of HCFC phase-out management plan preparation activities to assist with the implementation of the Kigali Amendment	0
Second phase of the evaluation pilot demonstration projects on ODS disposal and destruction	
Field visits (5 countries, 7 days/country)	
Staff:	
• Travel (4 countries*US \$6,000)	24,000
• Per diem (28 days*US \$350/day)	9,800
Consultants	
• Fee (7 days*5 countries*US \$500/day)	17,500
• Travel (5 countries*US \$3,000)	15,000
• Per diem (35 days*US \$350/day)	12,250
Report writing (5 countries*7 days*US \$500/day)	17,500
Synthesis report (12 days*US \$500/day)	6,000
Desk study for the evaluation of the sustainability of the Montreal Protocol achievements	
Report writing (30 days * US \$500/day)	15,000
Desk study for the evaluation of the energy efficiency in the servicing sector	
Report writing (30 days * US \$500/day)	15,000
Sub-total	132,050
Miscellaneous*	4,000
Total	136,050

*Miscellaneous funds are planned to cover the unexpected additional travels while on mission and the unexpected replacement of the Monitoring and Evaluation office equipment.

Action expected from the Executive Committee

13. The Executive Committee may wish to:

- (a) Approve the terms of reference for the second phase of the evaluation of the pilot demonstration projects on ODS disposal and destruction, contained in Annex I of document UNEP/OzL.Pro/ExCom/82/13/Rev.1; and
- (b) Approve the proposed monitoring and evaluation work programme for 2019 at a budget of US \$136,050 as shown in Table 2 of document UNEP/OzL.Pro/ExCom/82/13/Rev.1.

Annex I

TERMS OF REFERENCE FOR THE SECOND PHASE OF THE EVALUATION OF THE PILOT DEMONSTRATION PROJECTS ON ODS DISPOSAL AND DESTRUCTION IN CONJUNCTION WITH RECOVERY, RECYCLING AND RECLAMATION (RR&R) ACTIVITIES

1. The importance of destroying ODS banks at the end of their useful life was acknowledged by the Parties of the Montreal Protocol at their 20th meeting and is reflected in Decision XX/7. This recognition came with the phase-out of CFC consumption and the implementation of the phase-out of HCFC consumption, and it reflected the understanding that otherwise these ODS would be released into the atmosphere at some point in a conventional waste management process.
2. Organizing the safe disposal and destruction of accumulated unwanted ODS was, however, a challenge especially for low-volume consuming (LVC) countries. The Executive Committee therefore considered funding pilot demonstration projects to deal with assembled stocks of end-of-life (EOL) ODS with high net global warming potential (GWP). The projects focused on the collection (without MLF funding), transport, storage and destruction of ODS. They would formulate lessons learned, generate experience, models and protocols about management and financing modalities to be applied in other countries. They would stress the climate benefits and point out co-financing prospects.
3. At the 75th meeting, the Senior Evaluation and Monitoring officer (SMEO) presented the desk study for the evaluation of pilot demonstration projects on ODS disposal and destruction.¹ Drafting the desk study was deemed opportune as it followed several reports presented to the Executive Committee, at its 64th and 70th meetings, summarizing the experience related to the implementation of ODS disposal projects such as collection, training and awareness raising, storage and destruction.²
4. The evaluation assessed to what extent demonstration and pilot projects generated experience and lessons learned on management and financing modalities for ODS disposal. It analysed data from 12 countries and two regional pilot demonstration projects. The report concluded that existing national policy and regulatory infrastructures were either sufficient for the implementation of the ODS destruction projects, or flexible enough to allow for the changes needed to successfully implement the pilot projects.
5. The challenge was in quantifying and collecting of physical ODS waste for reasons ranging from loss of ODS waste after long storage periods, to less-than-calculated or non-existent ODS in the equipment, where waste ODS was estimated to come from the replacement of old refrigerators. This led to a redesign of the ODS disposal strategy.
6. The report pointed out the need to raise awareness among waste management operators on the importance of having detailed procedures for the management and disposal of ODS waste. Logistical planning is a substantial part of the preparatory work for successful disposal of ODS waste. Synchronizing logistical details and procedures for obtaining the required permits is of utmost importance to prevent delays. Regarding the collection method of ODS, the report found that the most practical option seems to be collecting at the regional level, then transferring to a central aggregation point and sending the waste for destruction when a sufficient quantity has been accumulated.
7. Local destruction capacity was used whenever it was available. This allows for the sustainability of future ODS waste destruction at both the national and regional level. Additionally, joint persistent organic pollutants (POP) waste and ODS waste disposal was cost-effective, and feasible. The destruction

¹ UNEP/OzL.Pro/ExCom/75/10.

² Documents UNEP/OzL.Pro/ExCom/64/8 and UNEP/OzL.Pro/ExCom/70/54 and Corr.1 respectively.

technology is similar and, in general, for LVC countries, the quantity of ODS waste is far less than POP waste, leading to savings on transportation and shipping costs.

8. At its 75th meeting, the Executive Committee postponed the second phase of the evaluation, including field work, due to the premature implementation phase of these projects, and decided to ask the SMEO to reassess the projects and provide an update on the status of implementation or completion of these projects (decision 75/8). Therefore, as most projects are completed or close to completion, the second phase can be undertaken.

9. At the 82nd meeting, a synthesis report on the final reports of nine pilot projects on ODS disposal, and two studies for the establishment of a private-public financing system for disposal of ODS was considered by the Executive Committee. During the discussion, members of the Committee noted the overview and summary of these projects and requested that the challenges identified in the synthesis report be considered in this second phase of the evaluation. In other discussions, members of the committee also pointed out the importance of recovery, recycling and reclamation (RR&R) processes, comprehensive policy approaches, which are essential prerequisite for the successful implementation of disposal activities. Therefore, operational and well-established recovery and recycling schemes, in conjunction with ODS disposal and destruction activities, are essential. It was therefore decided that the evaluation would analyse the link between disposal and destruction projects and related RR&R processes in the sample of countries.

Evaluation objectives and main issues

10. Based on the findings of the desk study, on issues raised in the reports from various countries and on the synthesis report submitted at the 82nd meeting³, the evaluation will focus on the sustainability of the results of the ODS disposal and destruction projects implemented, as well as on the contribution of RR&R activities. It will inquire whether the destruction capability demonstrated through the pilot project can move to a sustainable model and on how this is sustained by a legal and regulatory framework and by a public awareness component. It will stress the need for waste prevention mechanisms and on enhancing the spirit of ownership and responsibility of the stakeholders.

11. The evaluation will analyse what were the limitations of such a model, the reasons of these and their impact on the productivity and cost effectiveness in destroying the ODS. Furthermore, it will analyse the reasons for delays and will summarize lessons learned from project implementation.

12. More specifically, the following issues will be addressed:

Project design

- (a) What were the changes made in the approach for the project as compared to its original approval, and the justification for these changes?
- (b) Describe the type and amount of ODS that was destroyed, how consistent it was with the approved proposal. If there are differences, what was the cause?
- (c) Was the project designed around an existing ODS destruction facility (i.e., rotary or cement kiln) in the country, or was the ODS waste proposed to be exported? What modifications were needed to make the ODS destruction facility equipped to meet the standard of 99.99 per cent DRE for ODS destruction?
- (d) Describe the existing framework for waste management in the country that facilitated project implementation and how it was improved as a result of the project?

³ UNEP/OzL.Pro/ExCom/82/21.

- (e) What was the impact of the existing recycling, recovery, and reclamation (RR&R), centres available in the country in the overall determination of ODS wastes in terms of the logistics for refrigerant collection? How many of these R&R centres were established under Multilateral Fund projects and how many are privately operated? What challenges exist for increasing recovery?
- (f) Where projects were originally designed to look at synergies with similar projects and initiatives, or projects dealing with other organic pollutants destruction, how was this collaboration designed (e.g., funded by the Green Energy Fund)? For other projects, which did not include this component, were considerations made during project implementation of looking at such synergies to meeting national obligations under the Stockholm Convention on Persistent Organic Pollutants?
- (g) How did the project integrate elements that ensured the quality (including type, purity, location and ownership) of the ODS waste that was to be destroyed?
- (h) Was the foreseen management and financial set-up in the approved project achieved in implementation? If not, why? How was the management of end-of-life ODS integrated into the countries' overall hazardous waste and/or refrigerant management system?

Policies and regulations related to ODS disposal and destruction and RR&R

13. According to the desk study and the subsequent synthesis report, changes were required in the existing national policy and regulatory infrastructure for the implementation of the ODS waste disposal projects. This primarily concerned the revision of the legal framework related to ODS waste management.

- (a) What type of changes were made the existing national policy and regulatory infrastructure to facilitate the implementation of the ODS destruction projects? Describe all changes, and the specific new regulations that resulted from the project. Likewise describe those that were required but not implemented and why. Was the project implemented as part of a larger national policy framework, which was part of an integrated approach to special and hazardous waste management?
- (b) Describe the regulations that were established during project implementation that mandated ODS and other waste collection efforts and standards such as the extended producer responsibility (EPR) or the waste electrical and electronic equipment (WEEE) recycling management programme and how these facilitated the implementation of the demonstration projects
- (c) In the case of exporting ODS for destruction, describe the changes required in the legal framework allowing or prohibiting such activity? What motivated the Government to decide to export waste instead of destroying it and what were the problems encountered? Was this decision in agreement with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal? Was there any exemption for ODS export?
- (d) For those countries that lacked regulatory mechanisms requiring safe disposal and destruction of ODS waste at project inception, did the results from the pilot projects provide opportunities to introduce requirements for decommissioning ODS-containing refrigeration equipment, including obligations to dispose of such waste, and to put in place mandatory requirements for destroying ODS?

- (e) What Ministries were involved in the project implementation? Was there a synergy or network of coordination among the Ministries involved? Was there any training of their personnel on the harmful effect of ODS and the need for destruction, recycling/reclamation or export? Were there any legal limitations for any of the Ministries involved for facilitating the project?
- (f) How was the coherence among national policies on waste disposal and destruction, recovery, recycling and reclamation with existing regional regulations (e.g., European Union) and how has this facilitated the formulation of a disposal and destruction national legislation?

Approaches in collection, destruction and selection of technology

14. How was waste collected and aggregated? Was there an institutionalized collection system at the national and/or local level (collecting and dismantling end-of-life (EOL) electrical appliances including domestic and commercial refrigeration equipment, home appliance replacement and EPR programmes)? What was the role of recovery and recycling centres or of networks in collection?

15. The desk study found out that there were only two main approaches selected in the sample countries, namely domestic destruction through local facilities and export of the ODS waste abroad.

- (a) How was the identification and selection of destruction technology undertaken? Were there various options for destroying ODS waste considered? What was the process of validation of the technological, economic and environmental effectiveness of these?
- (b) Was there an existing technology that needed modification and if yes, which one? What were the challenges in adapting existing infrastructure (e.g., cement kilns, rotary kilns and chemical incinerators)? What was the participation of stakeholders in this process? Were there preliminary discussions with or monitoring of potential suppliers?
- (c) What was the result of the technology used for destruction in terms of *inter alia* emissions and cost-effectiveness?
- (d) What were the criteria for choosing the facilities included in the projects?
- (e) Was recycling or reclamation of ODS considered? If so, how?

Storage and transportation of ODS waste

16. What was the procedure to identify and select ODS waste storage facilities (e.g., existing recovery/reclamation/collection centres or other)? How was the assessment process carried out? Were there bidding mechanisms put in place and what were the challenges? How were these facilities equipped? (e.g., storage cylinders to allow aggregation of waste refrigerants at the national level).

17. How was the transportation of ODS waste organized? How did it contribute to the total cost of disposal and destruction? Was there appropriate equipment (e.g., iso-tanks) available?

18. Were the requirements of the Basel Convention applied during transboundary transportation of the waste?

Monitoring and verification of the destruction

- (a) How is the destruction of ODS waste properly accounted for? Were databases for data collection and storing created if yes, please describe? How were there monitoring plans

devised? Were the database and monitoring process institutionalized and improved upon to sustain the subsequent ODS destruction activities?

- (b) Is it possible to trace dismantled ODS equipment, if so how?
- (c) When ODS were extracted from EOL equipment, did the model include recovery and recycling or disposal of residual materials? Was any cost or revenue generated from this? Is there a system of certificates provided to the enterprises from which ODS have been picked up?

Technical assistance and training

19. What were the needs in technical assistance, legal and institutional of various countries and how were these met? Was training of national experts, environmental audits of the facilities and environmental management plans provided? Where did the training take place? Who was trained and in which area? Was standard Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal documentation provided during the training?

20. How was the certification of servicing companies and technicians organized to ensure proper handling and collection of used refrigerants?

21. Were there and if yes, how were they organized, training workshops on aggregation of ODS stocks for destruction as well as for improvement of the recovery and recycling systems and what were the main challenges in identifying and attracting trainees?

Financial aspects

- (a) Was funding for the demonstration projects adequate? If not, which components (e.g., storage or transportation) were not adequately funded and why?
- (b) What specific opportunities were found for leveraging co-financing for a self-sustained ODS destruction system? What challenges were encountered in securing co-financing? What co-financing modalities were explored and which were successful? Are other modalities being explored, and if so, what are they?
- (c) What specific opportunities were found for leveraging co-financing for a self-sustained ODS destruction system? What challenges were encountered in securing co-financing? What co-financing modalities were successful and why?
- (d) What were the costs assessed in the project design? What were the costs after completion of the project, compared to those planned? If there were differences, what were the reasons for these differences? How were costs affected relating to the implementation of policies and regulations in the country?
- (e) Did the business model established for ODS disposal/destruction include the following?
 - (i) Type of ODS included;
 - (ii) Expected amounts of ODS to be collected for a successful operation; and
 - (iii) Funding sources mobilized and included into the model (i.e., link to carbon credits in voluntary markets; national regulation incentives; suppliers co-financing for EOL collection of equipment, cost savings through cost-sharing with similar projects)?

Communication and dissemination

22. What were the communication mechanisms (e.g., workshops and seminars) and what were the challenges encountered? What were the national or regional communication platforms on ODS waste disposal (e.g., forums and conferences) to disseminate and promote information and lessons learned from successful experiences? Were there similar activities related to RR&R?
23. How was the coordination and communication among various actors in both disposal and destruction and RR&R areas been organized?
24. What has been the political and industrial response towards such projects and what consequences with regard to project implementation were observed?

Sustainability and replicability

25. What needs to be taken into account when designing a viable and sustainable business model for ODS disposal and destruction? How can a mechanism of waste prevention be implemented, what are its main elements and what are the main challenges to its implementation?
26. What changes need to be brought to the national and/or local policy and regulations framework to encourage waste prevention and effective collection, storage, transportation and destruction of existing ODS waste?
27. What are the measures implemented or that need to be implemented to promote the idea of ownership at the institutional level as well as to increase responsibility among refrigeration suppliers and distributors (e.g., EPR or other)? How can this be monitored?
28. Some LVC countries (i.e., Georgia and Nepal) implemented the project and came out with protocols, which could be implemented in other LVCs.
- (a) What is the feasibility of implementation of these models? What are the conditions needed for this protocols to be implemented in other countries and what are the potential challenges?
 - (b) What were the solutions of self-funding for sustainability?
 - (c) How did regional projects contribute to help the destruction of ODS?

Gender-related issues

29. Did training of national experts took gender issues into account in identifying potential trainees? What other gender-related issues have been observed during project implementation?

Scope, methodology and schedule of submission

30. A sample of countries was selected based on the following criteria: region, implementing agency, approach to destruction (local or export) and the results of the projects. The countries selected are:
- (a) Colombia (UNDP): Domestic destruction through certification of three incineration facilities for ODS destruction;
 - (b) Georgia (UNDP): Co-disposal with POPs waste through export of these wastes to develop a protocol to be implemented in other LVC countries;

- (a) Ghana (UNDP): Export to an Article 2 country for carbon finance;
- (b) Mexico (UNIDO/France): Transportation of ODS waste to a centralized facility in Mexico and to the United States; and
- (c) Nigeria (UNIDO): Transportation to a centralized facility for storage before exporting.

31. A team of consultants will be recruited to visit the countries and collect information. In addition, they will read existing documentation, especially the desk study of the evaluation as well as the synthesis report on the pilot ODS disposal projects (document UNEP/OzL.Pro/ExCom/82/22) presented at the 82nd meeting of the Executive Committee, and discuss with members of the Secretariat and the bilateral and implementing agencies, as needed.

32. Each visit will yield a country report and a synthesis report will summarize the findings and formulate lessons learned, which will be submitted to the 84th meeting. The reports will be shared with the bilateral and implementing agencies for comments.
