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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-ninth Meeting
Bangkok, 3-7 July 2017

AMENDMENT TO THE MONITORING AND EVALUATION WORK PROGRAMME FOR 2017 (Decision 77/7(b))

Introduction

1. At its 77th meeting, the Executive Committee approved the monitoring and evaluation work programme for 2017 and the associated budget of US $143,484 contained in document UNEP/OzL.Pro/ExCom/77/10/Rev.1. The Executive Committee further requested the Senior Monitoring and Evaluation Officer (SMEO) to present an amendment to the monitoring and evaluation work programme for 2017 to the 79th meeting, to include the evaluation of the refrigeration servicing sector and the associated budget and terms of reference (decision 77/7).

2. This document is prepared to include the activity on the desk study for the evaluation of the refrigeration servicing sector, the associated budget and the terms of reference in the 2017 monitoring and evaluation work programme pursuant to decision 77/7(b).

Desk study for the evaluation of the refrigeration servicing sector

3. The evaluation will analyze the progress made in the phasing-out of HCFCs in the projects funded by the Multilateral Fund in the refrigeration servicing sector. It will focus on the challenges encountered during implementation and will draw lessons learned from those projects to help future similar activities, including those related to the phasing-down of HFCs. The terms of reference for the evaluation are contained in Annex I to the present document. The desk study to be carried out as the first phase of the evaluation will be submitted to the 80th meeting. The budget for the desk study is presented in Table 1.

Table 1. Budget for Desk study for the evaluation of the refrigeration servicing sector

Description	Amount (US $)
Report writing (30 days*US $500/day)	15,000

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

Action expected from the Executive Committee

4. The Executive Committee may wish to consider approving:

(a) The inclusion of the desk study for the evaluation of the refrigeration servicing sector, at a budget of US $15,000 in the 2017 monitoring and evaluation work programme pursuant to decision 77/7(b), bringing the total budget for 2017 to US $158,484; and

(b) The terms of reference for the evaluation of the refrigeration servicing sector contained in Annex I of document UNEP/OzL.Pro/ExCom/79/7.

Annex I

TERMS OF REFERENCE FOR THE EVALUATION OF THE REFRIGERATION SERVICING SECTOR

Background

1. The servicing sector, as one of the largest consumer of ODS, is of the utmost importance to all Article 5 countries. For the majority of low-volume consuming (LVC) countries, the servicing sector will be the main source of funding to meet compliance, and will be greatly affected by the HFC phase-down. The importance of the servicing sector was stressed by decision XXVIII/2 of the Meeting of the Parties, which recommends making cost eligible various categories related to this sector[1] and requested the Executive Committee to develop, within two years, guidelines for financing the phase-down of HFCs.

Objective of the desk study

2. The desk study will analyse the progress made in the phase-out of HCFCs in the projects funded by the Multilateral Fund in the refrigeration servicing sector. It will focus on the contribution of activities funded to HCFC phase-out and introduction of low-global-warming potential alternatives, and challenges encountered during project implementation. The evaluation will draw lessons from these projects to help future, similar activities in the sector. Taking into account the limitations of a desk study, it will attempt to identify potential issues that could be related to the phasing-down of HFCs.

Scope and output

3. The desk study will select projects in the refrigeration servicing sector in both LVC and non-LVC countries, in various geographical regions and implemented by various implementing agencies.

4. A report with findings, lessons learned and recommendations will be submitted to the 80th meeting. Following the initial findings, the report may recommend that further data collection and analysis be needed, which will require field visits in a number of selected countries during a second stage of the evaluation.

Evaluation questions

5. A series of evaluation questions follows, describing the main issues to be tackled by the evaluator.

Implementation issues

(a) Who are the major stakeholders and what was their role in the implementation of the project? Is there a coordination mechanism and, if so, how did it work?

(b) What have been the main activities implemented in the servicing sector under the HPMPs in LVC and non-LVC countries and what has been their impact on HCFC phase-out?

(c) Were refrigeration associations included in the design and implementation of these projects? Were they strengthened or impacted during the HCFC phase-out? What was their contribution on the implementation of activities in the sector and the main limitations encountered to have a larger role?

(d) What were the main issues encountered in the project implementation in LVC countries

[1] Paragraph 15(c) of document UNEP/OzL.Pro.28/12.

as compared to non-LVC countries?

(e) What were the activities implemented in LVC and non-LVC countries aiming at facilitating acceptance of low-GWP alternatives to HCFCs. Were these effective and, if so, can these be applied for the phase-down of HFCs? Was e-licensing applied and, if yes, how did it work? Were there interactions with international or regional standards setting bodies related to the safe use of flammable or toxic alternatives?

(f) How did the servicing sector manage with the introduction of low-GWP alternatives? Were technical assistance and capacity building taken into consideration to address safety issues associated with low-GWP and zero-GWP alternatives?

(g) Which were the reasons for delays in project implementation?

(h) What have been the main challenges encountered to service equipment with alternative technologies?

(i) Was cost-effective management of stockpiles of used or unwanted controlled substances considered?

(j) Are there new alternatives to HCFCs to be evaluated, which could sustain the operation of HCFC-based equipment until the end of life?

(k) How, if at all, did activities address the risks associated with retrofitting HCFC-based equipment with flammable alternatives?

(l) What were the issues related to availability and affordability of spare parts and refrigerants?

(m) Was reporting on the implementation of activities regularly done? Is the reporting providing relevant information on challenges encountered and lessons learned?

(n) To what extent could activities being implemented have contributed or potentially contribute to HFC phase-down in applications not covered in the HPMPs (e.g., domestic refrigeration, commercial refrigeration based on R-404A and R-407C, and mobile air-conditioning)? What could be modified in the project design and implementation to facilitate this?

Policy, legal and regulatory frameworks

(a) What have been the most common regulatory measures adopted by the countries in relation to the refrigeration servicing sector?

(b) Are there appropriate policies and legislation to facilitate the phase-out of HCFCs in the refrigeration servicing sector?

(c) Are there legal or regulatory measures for enabling the safe introduction of low-GWP, flammable or toxic refrigerants such as: specialized training; regulations and codes of practice; standards for flammable refrigerants; technology demonstrations; and, awareness-raising activities?

(d) Were there delays in adopting this legislation and, if yes, why?

(e) Were there new enforcement procedures and monitoring tools developed to control

HCFC use in the sector as well as HCFC-based equipment imports? If so, can they be applied to HFC use and HFC-based equipment?

(f) To what extent the following measures related to the refrigeration servicing sector have been established and implemented in Article 5 countries as part of the HPMPs: mandatory reporting by refrigerant importers and exporters; bans on "non-refillable" (disposable) refrigerant containers; extension of import/export licensing system to all refrigerants; HCFC emissions control measures (e.g., compulsory recovery); ban on the use of HCFC-141b for flushing systems during servicing; ban on imports of second-hand HCFC based equipment; and, predetermined schedules for leakage check by certified personnel for systems with charges above certain limit; and large systems record-keeping (e.g., HCFC logbooks and HCFC-based equipment log books)? Which have been the main barriers to introduce these measures?

(g) To what extent illegal trade of refrigerants have been identified in Article 5 countries (e.g., HCFC-22 labelled as HFC-134a)? Is there a legislation targeting illegal trade of refrigerants? Have imports of mislabeled refrigerants been identified?

(h) Are there inspections and certifications, standardized technical testing, and enforceable technical standards for the alternative technology?

(i) Is there a need for them to be further reviewed for the phase-down of HFCs?

Refrigerant containment (recovery, recycling, reclamation)

(a) How is the recovery of refrigerants undertaken? Can a minimum set of tools be standardized for all service technicians? Can recovery and reclamation tools and techniques for HCFCs be transferred to the HFC phase-down?

(b) Does the equipment to recover, recycle and reclaim works for both HCFCs and HFCs?

Technology-related issues

(a) How can these projects influence technology selection during the assembly, installation, initial charging and commissioning of new refrigeration equipment by servicing enterprises and technicians, when the choice of technology is limited by an already existing system?

(b) Does reducing the refrigerant charge size in the design of systems impacts the amounts of refrigerants emitted during assembly and/or installation? Have servicing activities contributed to energy efficiency improvement of the equipment? If so, were such improvements in energy efficiency monitored or assessed?

(c) What was the role of the demonstration projects in testing alternative technologies; in facilitating the collection of accurate data on costs and application of the technologies; and, on creating the conditions to introduce the alternative technology in the country on a larger scale?

(d) What was the role of international companies in introducing the alternative technology? Were they a trigger in adopting new technology or created obstacles for small and medium-size enterprises (SMEs)? How did SMEs cope with the challenges of phase-out?

Training

(a) Do training programmes for refrigeration technicians integrate an approach on safe handling of flammable refrigerants and an understanding of related regulations and standards? Do they address issues related to the consequences of poor installation and servicing of equipment that uses flammable refrigerants? Do training programmes include a module on good practices and standards in refrigeration?

(b) Are trainings in refrigeration programmes self-sustaining? How did the Multilateral Fund resources help in enhancing the capacity of national vocational/training centres and other local institutes involved in training of refrigeration technicians?

(c) Are there certification systems for technicians who successfully participate in training programmes? Are these mandatory through regulations? Was there any obstacle in making the certifications mandatory?

(d) What types of certification schemes have been established in different Article 5 countries and how effective are they to ensure good practices in refrigeration?

Funding-related issues

(a) Was there a difference in the adequacy of funding between LVCs and non LVCs countries? Was co-funding requested? Were there delays due to obtaining co-funding? What were the opportunities and challenges related to co-funding and what lessons can be learned from there? How the flexibility that is afforded Article 5 countries through their Agreements with the Executive Committee was used to optimize the allocation upon implementation of the HPMP?

(b) How will the increase in the funding available for the servicing sector under decision 74/50, affect the ongoing projects and acceptance of alternatives to HCFCs and HFCs with low-GWP and zero-GWP?

Awareness-raising and dissemination of information

(a) Was there updated information on technically and economically feasible alternative technologies to be applied by local refrigeration and air-conditioning manufacturers? What were the capacity building activities implemented by the project?

(b) How did technical assistance projects address awareness-related challenges? What awareness-raising strategy was used and what were the results? How did the servicing community change following these activities?

(c) What was the role of professional refrigeration associations in helping with and disseminating information about the new technology?

(d) Was there any collaboration with the customs departments in raising awareness on the handling of the new refrigerants?

Sustainability

(a) What happens after project completion? Will the countries be able to sustain the project gains? Is there a sustainability policy? Can the long-term sustainability of the technicians and customs training programmes be achieved through the Multilateral Fund's assistance? Can the curricula of training and vocational schools be adapted for flammable

alternatives and low-GWP and zero-GWP alternatives? Are measures such as mandatory training for technicians likely to be implemented?

(b) What lessons in training in good practices can be applied for long-term strategies to be implemented?

(c) What activities could be implemented to reduce emissions during the operation of equipment, while maintaining energy efficiency?

Methodology

6. A consultant will be recruited based on his or her experience and knowledge of the subject matter and of the functioning of the Montreal Protocol and the Multilateral Fund. The consultant will prepare a desk study that includes an in-depth review of the existing documentation such as project documents, progress reports, verification and project completion reports; minutes from regional ozone officers meetings, ODS alternative surveys, as well as information gathered from interviews and discussions with members of the Secretariat and bilateral and implementing agencies and local stakeholders.