



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/91/44
10 November 2022

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-first Meeting
Montreal, 5-9 December 2022
Item 9(d) of the provisional agenda¹

PROJECT PROPOSAL: MALDIVES

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Technical assistance

- Additional activities to maintain energy efficiency for the servicing sector under decision 89/6(b)

UNEP

¹ UNEP/OzL.Pro/ExCom/91/1

PROJECT DESCRIPTION

Background

1. The HCFC phase-out management plan (HPMP) for Maldives was approved in principle at the 60th meeting² and revised at the 69th meeting³ at a total cost of US \$1,219,900, consisting of US \$680,000, plus agency support costs of US \$88,400 for UNEP and US \$420,000, plus agency support costs of US \$31,500 for UNDP, noting that this level of funding was for an accelerated HCFC phase-out up to 2020.

2. The fourth and final tranche of the HPMP was approved at the 80th meeting.⁴ The Government of Maldives has since completed implementation of its HPMP and phased out all consumption of HCFC. Subsequently the project completion report was submitted at the 90th meeting.

3. At the 89th meeting the Executive Committee decided inter alia to consider a set of additional activities prescribed under decision 89/6(b), for inclusion in existing and future stages of HCFC phase-out management plans (HPMPs) for low-volume-consuming (LVC) countries, when needed for the introduction of alternatives to HCFCs with low or zero global-warming potential (GWP) and for maintaining energy efficiency in the refrigeration servicing sector, and to request bilateral and implementing agencies, when submitting an HPMP tranche request, to include in the tranche implementation plan, the specific actions, performance indicators and funding associated with those activities; a progress report on implementation of those activities under the previous funding tranche; and a revised Agreement between the Government of the Article 5 country concerned and the Executive Committee.

4. UNEP as the designated implementing agency has submitted on behalf of the Government of Maldives, a request for funding additional activities for the introduction of alternatives to HCFCs with low-or zero-GWP refrigerants and for maintaining energy efficiency in the refrigeration servicing sector in line with decision 89/6,⁵ at the amount of US \$100,000, plus agency support costs of US \$13,000.⁶ Since the HPMP had already been completed this request was submitted as a stand-alone proposal. The submission includes a description of specific activities, targets and performance indicators and an implementation plan for 2023 to 2024.

Report on HCFC consumption

5. The Government of Maldives reported a consumption of 0.09 ODP tonnes of HCFC in 2021, which is 97.5 per cent below the HCFC baseline for compliance. The 2017 to 2021 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Maldives (2017-2021 Article 7 data)

HCFC-22	2017	2018	2019	2020	2021	Baseline
Metric tonnes (mt)	43.64	22.00	22.00	1.64	1.64	76.47
ODP tonnes	2.40	1.21	1.21	0.09	0.09	4.60

6. The Government of Maldives has met its commitment under its Agreement with the Executive Committee for an accelerated phase-out of HCFCs by 2020 to a sustained level of 0.0925 ODP tonnes.

² UNEP/OzL.Pro/ExCom/60/33 and Annex VII of document UNEP/OzL.Pro/ExCom/60/54.

³ Annex X of document UNEP/OzL.Pro/ExCom/69/40.

⁴ Decision 80/70.

⁵ Document UNEP/OzL.Pro/ExCom/89/16.

⁶ As per the letter of 28 September 2022 from the Ministry of Environment, Climate Change and Technology of Maldives to UNEP.

Country programme (CP) implementation report

7. The Government of Maldives reported HCFC sector consumption data under the 2021 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

Project description

8. Maldives has successfully completed its HPMP and has been making efforts to enhance energy efficiency while sustaining the phase-out of HCFCs and preparing for the phase-down of HFCs in refrigeration and air-conditioning (RAC) equipment. The country ratified the Kigali Amendment as of 13 November 2017.

9. The present proposal builds upon the success of the HPMP, enabling activities for HFC phase-down, and a Global Environment Facility (GEF)-funded project⁷ (strengthening low-carbon energy island (LCEI) strategies), implemented in Maldives through the Ministry of Environment, Climate Change, and Technology.

10. One output of the GEF-funded project was an energy efficiency labelling programme for appliances and equipment called Hakathari which covered certain equipment including air conditioners⁸ and domestic refrigerators. The mandated label specifications under the Hakathari programme include information on the refrigerant and its ozone depleting potential (ODP) and global warming potential (GWP). The programme also establishes the minimum qualification requirements for tested⁹ appliances to be eligible for the energy efficiency labels ensuring that these meet the minimum energy performance standards (MEPS) already present in the country. The Hakathari programme is being implemented in Maldives on a voluntary basis in order to fine tune the programme requirements; the Government's objective is to make this labelling programme mandatory for all equipment importers by 2024.

11. Targeted awareness raising activities to support the labelling programme and promote energy-efficient equipment with low-GWP refrigerants and a financing scheme to support end users to purchase higher energy efficiency rated RAC appliances were included as part of the enabling activities for HFC phase-down for Maldives.

12. This project proposal is being submitted specifically for activities listed in subparagraphs (iii)¹⁰ and (iv)¹¹ of decision 89/6(b). The project is designed to enhance the existing Hakathari programme to sustain HCFC phase-out and promote energy-efficient and low-GWP alternatives in RAC equipment, and support strengthening of the country's MEPS. These additional activities will help the country to move towards the efficient and timely implementation of the Kigali Amendment.

⁷ <http://www.environment.gov.mv/v2/en/project/2232>.

⁸ Single-phase, single-split and unitary type air conditioners of both fixed speed and variable speed, up to rated capacities of 24,226 BTU/hr (equivalent to 7.1 kW).

⁹ Testing is done by a laboratory accredited by a recognized authority which is a Mutual Recognition Arrangement (MRA) signatory such as (International Laboratory Accreditation Cooperation (ILAC) / Asia Pacific Laboratory Accreditation Cooperation (APLAC) as per certain test standards or protocols for testing laboratories (using ISO/IEC 17025).

¹⁰ Coordination and collaboration between the national ozone units (NOUs) and relevant authorities and bodies to include appropriate consideration of low-GWP refrigerants during the development of cooling and energy efficiency plans, which among others include MEPS and, as appropriate, labelling and testing programmes, and standards for refrigeration, air-conditioning and heat-pump (RACHP) equipment.

¹¹ Awareness and outreach programmes to promote the introduction of MEPS and labelling systems; the mandatory certification of technicians; and the introduction of energy-efficient RACHP equipment operating with low- or zero-GWP refrigerants.

13. The project has two main components:
- (a) Improving the coordination and collaboration between stakeholders, the relevant energy authorities, and the NOU through capacity building of key staff and stakeholders to ensure sustained consideration of the refrigerant in the labelling programme, guide the development of the review approach for refrigerant type and GWP, and understand regulatory challenges related to low-GWP refrigerant labelling information; and
 - (b) Implementing outreach and awareness activities related to the labelling programme focusing on increasing the demand for air conditioners and refrigerators operating with low- or zero-GWP refrigerants among all labeled energy-efficient products.
14. The requested funding is provided in table 2 below:

Table 2: Requested funding for activities to maintain energy efficiency for the servicing sector under decision 89/6(b) for Maldives

Activity	Sub-activity description	Budget (US \$)
Capacity building of key staff and stakeholders	Coordination and collaboration with relevant agencies through capacity building training	35,000
	Training of importers	4,000
	Training of customs and trade authorities	6,000
	Information sessions	3,000
Activity total		48,000
Outreach and impact assessment	Development and dissemination of outreach materials	37,000
	Consumer Behaviour Study	15,000
Activity total		52,000
Grand total		100,000

15. The submission also included a detailed work plan, targets, and indicators, and UNEP had committed to ensure reporting on the project progress of implementation, in line with decision 89/6(d).

Implementation plan

16. The project is expected to be completed in 18 months after approval; the following activities will be implemented between January 2023 and June 2024:
- (a) Coordination, collaboration and capacity building with key stakeholders through five training/information sessions for a total of 140 participants (importers, customs officers, utility agencies, building designers, building developers, and construction companies) on refrigerant GWP values in the labelling programme and promotion of low-GWP refrigerant-based products; updating existing training materials to include low-GWP refrigerant-based products; an overseas study tour in a country with existing MEPS, testing laboratory, and labelling programmes including report and recommendations to strengthen the Hakathari programme (US \$48,000);
 - (b) Outreach activities and the development of outreach materials including five awareness videos and five infographics to promote labeled appliances and to engage consumers on the difference between GWP values of refrigerants, how to read the energy efficiency labels and the ODP and GWP values of the refrigerants, and cost and environmental benefits of consumer choices (US \$37,000); and
 - (c) A study on consumer behavior will be conducted after the conclusion of the other project activities to collect data regarding consumers’ knowledge of MEPS and the labelling programme and low- or zero-GWP RAC equipment to measure awareness against the baseline year of 2017 and an assessment of the potential need for low-cost financing for energy-efficient equipment with low-GWP (US \$15,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

17. The Secretariat noted that decision 89/6(b) specifically requested that additional activities related to maintaining energy efficiency in the refrigeration servicing sector be included in existing and future stages of HPMPs for LVC countries. While Maldives is an LVC country, the country's HPMP was completed in 2021 following a commitment by the Government to accelerate its phase out of HCFCs by 2020. It was further noted that when the HPMP for Maldives was considered by the Executive Committee at the 60th meeting, it included, in addition to its proposal to accelerate the phase-out of HCFCs 10 years ahead of the Montreal Protocol schedule, activities for climate-co-benefits for implementation as part of the HPMP. A standards and labelling programme for energy efficiency was included in the project but not funded under the HPMP, despite which the country continued its efforts to ensure the implementation of the programme resulting in the present voluntary label. Maldives will continue to use some amount of HCFC for servicing equipment until 2025.¹²

18. The Secretariat sought additional information from UNEP on the overall benefit of the project for the country when it had already completed the HPMP and phased out HCFCs; whether the country has an energy efficiency compliance infrastructure in place to support the project; how these activities would contribute to the adoption of low-GWP alternatives; and the measures in place to ensure the sustained implementation of the labelling system as a mandatory programme. The Secretariat also asked for an explanation on the links between the activities identified in this proposal and those implemented as part of the enabling activities for HFC phase-down, ensuring that there was no overlap or repetition of activities.

19. UNEP reiterated that this project builds upon the HPMP activities, and that the country would like to facilitate change in the market demand for energy-efficient equipment using low-GWP refrigerants, noting that Maldives does not produce and only imports RAC equipment and is dependent on the technologies that are accessible and available from the market. Increasing collaboration between the Energy Department, the NOU, and other stakeholders including equipment importers and suppliers will ensure that the labelling programme which is closely tied to the country's MEPS will consider both energy efficiency parameters and the refrigerant; this would avoid unintended increase in high-GWP HFCs in different RAC equipment. This will be supported by the proposed outreach and awareness activities which will also include a consumer behaviour study that is expected to provide data and information to support periodic revisions of the MEPS in the future, when the Kigali HFC implementation plan (KIP) will be implemented.

20. UNEP also confirmed that the energy efficiency compliance structure was established as part of the LCEI strategies; the Hakathari labelling programme is implemented and monitored by the Energy Department and supported by the customs office in monitoring equipment entry at the borders; and that collaboration with the NOU had been initiated through the inclusion of ODS and GWP information on the label. The proposed activities would also allow the NOU to gain access to equipment stock and import data by model type which will be critical in projecting RAC sector servicing needs. This information can form the basis for a maximum GWP criterion to be used for future control of HFCs and is also critical information in the preparation of the KIP overarching strategy.

21. The initial awareness raising activities implemented as part of the enabling activities for HFC phase-down provided the framework for designing those activities included in this proposal which include a consumer behaviour study to collect data regarding the knowledge of consumers about MEPS and the

¹² While the servicing tail under the Montreal Protocol is from 2030-2040, because of their accelerated phase-out in 2020, Maldives reports consumption of HCFC-22 for servicing following the principle of the amount allowed for the servicing tail (i.e., 2.5 per cent of the baseline) from 2020-2025.

labelling programme specifically on refrigerators and air conditioners operating with low- or zero-GWP refrigerants and support needed for accelerated adoption of low-GWP refrigerant-based RAC equipment.

22. The Secretariat, in noting that this project is not being submitted as part of the HPMP, recognizes the relevance of the activities proposed in this project and its importance to a country like Maldives. The information provided in the proposal and the additional data provided by UNEP and the Government of Maldives demonstrates their commitment to ensure the introduction of low-GWP alternatives and maintaining energy efficiency in the refrigeration servicing sector, which is consistent with the Executive Committee's decision on the matter.

Gender policy implementation¹³

23. In accordance with decision 84/92(d) and decision 90/48(c) the Government of Maldives and UNEP will incorporate gender mainstreaming into all aspects of the implementation of these additional activities, noting that the head of the NOU in Maldives is a woman. Gender mainstreaming will be implemented using the Guide for integrating gender considerations in projects developed by UNEP. Specific indicators will be developed and reported for the project during its implementation.

Conclusion

24. The proposed project being submitted under decision 89/6(b) would build upon a previous energy efficiency project in the country with complementary activities; promote the adoption of low-GWP energy-efficient technologies in Maldives; strengthen the coordination with energy efficiency authorities in the country; and will support better understanding of consumer needs to enable the selection of energy-efficient, low-GWP products available in the market. It will also build the framework for considering energy efficiency related actions in the KIP currently under preparation and will support activities relating to the uptake of low-GWP energy-efficient technologies. The project will also strengthen MEPS implementation through a mechanism for a periodical revision of the MEPS, which will be part of this proposal.

RECOMMENDATION

25. The Executive Committee may wish to consider:

- (a) Approving the project for additional activities for the introduction of alternatives to HCFCs with low or zero global-warming potential and for maintaining energy efficiency in the refrigeration servicing sector in Maldives, in the amount of US \$100,000, plus agency support costs of US \$13,000 for UNEP; and
- (b) Requesting the Government of Maldives and UNEP to submit progress reports on the implementation of the project referred to in subparagraph (a) above, on a yearly basis until the completion of the project, and a project completion report to the first meeting of the Executive Committee in 2025.

¹³ In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.