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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-third Meeting
Montreal, 15-19 December 2023
Item 9(c) of the provisional agenda¹

PROJECT PROPOSAL: GUATEMALA

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

Phase-out

- HCFC phase-out management plan (stage II, second tranche) UNIDO and UNEP

¹ UNEP/OzL.Pro/ExCom/93/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Guatemala

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNIDO (lead), UNEP	86 th	100% phase-out by 2030

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2022	2.08 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2022	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					2.08				2.08

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	8.30	Starting point for sustained aggregate reductions:	9.70
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	4.30	Remaining:	5.40

(V) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNIDO	ODS phase-out (ODP tonnes)	0	1.60	0	1.60
	Funding (US \$)	0	285,583*	0	285,583
UNEP	ODS phase-out (ODP tonnes)	0	0.31	0	0.31
	Funding (US \$)	0	81,360*	0	81,360

* Including US \$89,880 for UNIDO and US \$40,680 for UNEP for additional activities to maintain energy efficiency (decision 89/6)

(VI) PROJECT DATA			2020	2021-2022	2023	2024*	2025-2026	2027	2028-2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			5.4	5.4	5.4	5.4	2.7	2.7	1.2	0	n/a
Maximum allowable consumption (ODP tonnes)			5.4	5.4	5.4	5.4	2.7	2.7	1.2	0	n/a
Funding agreed in principle (US \$)	UNIDO	Project costs	129,600	0	242,900	0	0	58,500	0	91,500	522,500
		Support costs	9,072	0	17,003	0	0	4,095	0	6,405	36,575
	UNEP	Project costs	43,000	0	76,000	0	0	43,000	0	33,000	195,000
		Support costs	5,590	0	9,880	0	0	5,590	0	4,290	25,350
Funds approved by ExCom (US \$)	Project costs		172,600								172,600
	Support costs		14,662								
Total funds recommended for approval at this meeting (US \$)	Project costs				318,900						318,900
	Support costs				26,883						

* Funding for 2024 includes US \$60,000, plus agency support costs of US \$4,200, for UNIDO and US \$40,000, plus agency support costs of US \$5,200, for UNEP, for additional activities to maintain energy efficiency (decision 89/6). The second tranche of stage II of the HPMP was scheduled to be submitted at the second meeting in 2024, but a request was made for the tranche in advance by one year due to the high level of implementation and disbursement.

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Guatemala, UNIDO as the lead implementing agency has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$345,783, consisting of US \$242,900, plus agency support costs of US \$17,003, for UNIDO and US \$76,000, plus agency support costs of US \$9,880, for UNEP.² The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2020 to 2022, a request for funding additional activities to maintain energy efficiency in the refrigeration servicing sector,³ and the tranche implementation plan for 2024 to 2026.

Report on HCFC consumption

2. The Government of Guatemala reported a consumption of 2.08 ODP tonnes of HCFCs in 2022, which is 75 per cent below the HCFC baseline for compliance. The 2018-2022 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Guatemala (2018-2022 Article 7 data)

HCFC	2018	2019	2020	2021	2022	Baseline
Metric tonnes (mt)						
HCFC-22	63.09	52.44	68.58	48.66	37.87	126.90
HCFC-123	0	0.54	0.95	0	0	0.10
HCFC-124	0	0	0	0	0	5.20
HCFC-141b	5.22	4.19	1.88	1.77	0	9.80
HCFC-142b	0	0	0	0	0	1.70
Total (mt)	68.31	57.17	71.41	50.43	37.87	143.80
ODP tonnes						
HCFC-22	3.47	2.89	3.77	2.68	2.08	7.00
HCFC-123	0	0.01	0.02	0	0	0.00
HCFC-124	0	0	0	0	0	0.10
HCFC-141b	0.57	0.46	0.21	0.19	0	1.10
HCFC-142b	0	0	0	0	0	0.10
Total (ODP tonnes)	4.04	3.36	4.00	2.87	2.08	8.30

3. HCFC consumption has been decreasing due to the strict enforcement of the licensing system, the implementation of the activities included in the HPMP and the Government's commitment to control the imports of ODS. HCFC consumption has consistently been below the Montreal Protocol targets, and only HCFC-22 was consumed in 2022, as the ban on import of HCFC-141b in bulk and in pre-blended polyols came into force on 1 January 2021.

Country programme implementation report

4. The Government of Guatemala reported HCFC sector consumption data under the 2022 country programme (CP) implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

² As per the letter of 19 September 2023 from the Ministry of Environment and Natural Resources of Guatemala to UNIDO.

³ In line with decision 89/6, low-volume-consuming countries can include in their HPMPs additional activities 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.

Verification report

5. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2020 to 2022 was correct (as shown in table 1 above). The verification concluded that Guatemala was below the targets under the Montreal Protocol and the Agreement between the Government and the Executive Committee.

6. The verification report also indicated that the recommendations made by a previous verification for the years 2016-2019 had only been partially addressed, and reiterated them, including inter alia: to continue efforts to ensure accurate customs declarations; to require export licenses for every export of HCFC; to ensure that the numerical identification of each import authorization issued is unique; and to ensure the accuracy of consumption reports.

7. The 2020-2022 verification recommendations have been implemented, i.e., that the Ministry of Environment and Natural Resources (MARN) obtains and analyses data from Customs regarding HCFC imports and exports on a regular basis, for accuracy in HCFC consumption values and to prevent illegal traffic; that licenses are not issued if the customs codes are incorrect; and that licenses explicitly include an expiration date.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

8. There is an operational HCFC import licensing and quota system in the country, a ban on the import of HCFC-based equipment, and a ban on the import of HCFC-141b for flushing as of 1 January 2021. Guatemala also has a license and registration system of technicians, which was established through Ministerial Agreement 340-2018. A labour competencies standard “Good practices for the recovery and charge of refrigerants in refrigeration and air-conditioning (RAC) systems” was approved in 2021. The labour certification process will be carried out with the support of the Institute for Training and Productivity (INTECAP) and is starting in the last quarter of 2023. As of 8 November 2023, Guatemala had not ratified the Kigali Amendment. It has, notwithstanding, implemented an HFC licensing system, through Government Agreement No. 317/2019, thus complying, voluntarily and in advance, with this obligation under the Kigali Amendment.

9. The following activities were implemented with the assistance of UNEP to strengthen the legal framework for HCFC phase-out:

- (a) The labour competency standard on good refrigeration practices was validated and approved in 2021, and INTECAP is administratively and operationally ready to start the process of evaluating and certifying the RAC technicians in this standard. INTECAP held meetings to publicize this standard and the importance of its role in the evaluation of RAC technicians;
- (b) FOGEL, a manufacturer of domestic and commercial refrigeration equipment, held meetings with the Guatemalan Ozone Office to analyze the need to regulate the minimum energy efficiency criteria that equipment belonging to this application range must meet, and collaborate with its drafting and adoption as required;

- (c) The procedures and formats to obtain import and export licenses for controlled substances were redesigned and incorporated in the Government Agreement No. 317/2019. Starting from 2023 the licenses are granted through a MARN web platform, making the process more efficient;
- (d) Sixty-three customs officers, of which 17 were women, were trained on issues relating to monitoring imports of controlled substances and refrigerant-based equipment;
- (e) The inspection processes conducted by Customs for imports and exports of controlled substances and RAC equipment were periodically checked, and all customs offices in the country were visited to verify the operational status of the refrigerant identifiers bought under stage I of the HPMP. An analyzer was acquired for the National Ozone Unit (NOU), which is used for verifications and training of customs agents; and
- (f) Meetings were held with importers and large sellers of refrigerants and RAC equipment, to monitor the market.

Refrigeration servicing sector

10. The following activities have been implemented in the refrigeration servicing sector with assistance from UNIDO:

Strengthening the on-going licensing system and certification process by labour competencies of RAC servicing technicians

- (a) The certification process was launched in August 2023, and INTECAP received a tool kit to strengthen the evaluation of technicians' performance. A good practices workshop was held for RAC technicians and trainers, where awareness of the certification process in the good practices standard was raised;

Technical assistance to strengthen and upgrade the training programme on good refrigeration practices and alternative refrigerants with non-ODP and low-GWP

- (b) The manual of good practices for the installation and maintenance of RAC systems, which includes aspects relating to the safe handling of flammable refrigerants, was drafted and produced. It will be delivered to technicians starting their certification process in the good refrigeration practices labour competency standard. Topics related to the development of good refrigeration practices were incorporated in the Basic National Curriculum of intermediate and diversified level, which includes training programmes for RAC students;
- (c) A total of 451 technicians, out of which 83 were women, and 30 trainers were trained on good refrigeration practices, energy efficiency in RAC systems, and use of low-GWP alternatives. A total of 106 technicians were trained virtually in good RAC practices and ODS-free alternatives for RAC equipment cleaning systems. Two vocational institutes, an industrial mechanical school, and two INTECAP branches were provided with equipment and tools for good refrigeration practices;⁴

⁴ Including vacuum pumps, portable electronic leak detectors, HC electronic leak detectors, service manifold R-22, R-134a, R-404A, R-407C, manifolds R-600a, R-290, electronic vacuum gauges, recovery cylinders 26.2 lb, pipe piercing pliers, valve core tools, non-contact thermometers, penta type thermometers 5 rounds, sets of keys and cups with ratchet, pipe cutters, multimeters, refrigerant recovery machines, electronic scales.

- (d) The four-month event “Women in the Refrigeration and Air Conditioning Sector” was held in 2023. All female technicians who had the refrigeration technician license granted by MARN were invited. They shared experiences and presented a test to demonstrate their technical knowledge in the use of the RAC tools and good refrigeration practices. A winner was chosen and awarded a tool kit;

Upgrade and sustainability of the refrigerant recovery, recycling, and reclaiming network (RRR)

- (e) To strengthen the operation scheme of the RRR network and aiming at integrating into it the greatest number of stakeholders as possible, the following activities were carried out:
 - (i) Meetings with the Total Ecology Waste Management Company to verify compliance with both location and operational conditions to function as a refrigerant reclamation and storage centre for cylinders and equipment; and visits to the refrigerant collection and reclamation centre that operates at the INTECAP, with the purpose of classifying and verifying the status of the recovered and reclaimed refrigerant;
 - (ii) A study mission to Mexico to exchange experiences on issues related to the refrigerant RRR network operation, use of alternatives with low environmental impact and destruction of substances that deplete the ozone layer. An instructor from INTECAP attended an event in Cartagena, Colombia, devoted to exchanges on the refrigerant RRR network operation, use of alternatives with low environmental impact and good refrigeration practices;

Technical assistance to refrigeration and air-conditioning end users

- (f) The NOU held meetings with end users under the "Zero Leaks" programme and broadcast good refrigeration practices and alternative substances to those controlled by the Montreal Protocol in the RAC sector. Training was provided to technical personnel on the identification of leaks, their impact on the refrigeration system and the importance of correcting them, good refrigeration practices, energy efficiency in RAC systems, and use of R-290 in medium and low temperature applications; and

Dissemination and awareness raising

- (g) Visits and informative talks with companies/end users were held to provide information and advice on good refrigeration practices, including good practices during refrigerant recovery for reuse, and the importance of labour competencies certification. One thousand copies of a flyer on established procedures for the correct handling of refrigerants and the equipment that contains them, were designed and distributed to RAC technicians and end users.

Project implementation and monitoring

11. The NOU met with both public institutions and private stakeholders to secure their continuous involvement in the implementation of the HPMP and discuss progress and challenges in the implementation; annual implementation reports were prepared and presented to UNIDO and UNEP. Of the US \$13,859 for project management and monitoring, US \$9,818 was used for monitoring visits and US \$4,014 was used for staff. The balance of US \$27 will be returned by UNIDO.

Level of fund disbursement

12. As of September 2023, of the US \$172,600 approved so far (US \$129,600 for UNIDO and US \$43,000 for UNEP), US \$154,573 (89.55 per cent) had been disbursed (US \$129,573 for UNIDO and US \$25,000 for UNEP). The balance of US \$18,027 will be disbursed during the second tranche.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

13. The following activities will be implemented between January 2024 and December 2026:

- (a) *Strengthening the legal framework for HCFC phase-out:* continuing with the legal process towards a ban on disposable cylinders for refrigerant recovery and reclamation; strengthening legislation to establish the certification system of RAC technicians as mandatory; formulating policies for a comprehensive management during import, use, and final disposal of controlled substances; and organizing at least two outreach meetings with government agencies, associations, importers, consumers, and RAC servicing companies (UNEP) (US \$8,000);
- (b) *Technical assistance to strengthen the control of trade of HCFC-based substances and equipment/products:* Organizing at least one annual planning meeting with customs officers to prepare an annual workplan, share lessons learned and new information, and adopting corrective measures, as necessary; undertaking at least five annual visits at commercialization places across the country to follow-up on refrigerants local market; conducting training sessions for at least 90 customs and enforcement officers, brokers and importers to strengthen their knowledge on import of controlled substances and the equipment that contain them; delivering short informative workshops for customs agents and other stakeholders in the private sector on the import of controlled substances; and designing an online training module for consultation by enforcement officers, brokers, importers, and other stakeholders (UNEP) (US \$20,000);
- (c) *Strengthening the RAC technicians' certification process:* Organizing at least three awareness meetings on the certification process targeting RAC technicians and end users, and issuing 100 licenses for certified RAC technicians (UNIDO) (US \$4,500);
- (d) *Strengthening and upgrading the training programme on good refrigeration practices and alternative refrigerants:* Organizing five technical seminars on good refrigeration practices, recovery and recycling procedures, leak prevention, and low-GWP and non-ODS alternatives targeting 100 RAC technicians; establishing a specialized training centre for the provision of knowledge on the maintenance and installation of RAC equipment with flammable refrigerants in accordance with technical standards; ensuing an international study mission to deepen the knowledge on the applications of alternative substances in RAC systems and learning strategies on the safe handling of these substances (UNIDO) (US \$68,000);
- (e) *Sustainability and upgrading of the RRR network:* Establishing one reclaiming and stockpiling refrigerant centre in the southern part of the country, including provision and installation of equipment and supplies (UNIDO) (US \$90,400);

- (f) *Technical assistance to RAC end users:* Holding at least two meetings for large end users on appropriate selection of alternatives with zero ODP, low-GWP and energy efficiency in RAC equipment (UNIDO) (US \$3,000);
- (g) *Dissemination and awareness:* Continuing with the promotion of the safe handling of refrigerants and the implementation of a campaign to raise awareness and promote the gradual reduction of HCFC consumption, recovery and recycling practices, selection of non-HCFC, low-GWP, energy efficient alternatives, and effective control of trade of HCFC-based substances and equipment among RAC instructors and technicians, end-users, customs and enforcement officers; printing and distributing 1,000 copies of a brochure addressed to RAC students and technicians, end users, vocational institutes, and sale and repair shops; taking part in two events such as seminars, trade fairs, guild events conferences, and exhibitions (UNEP) (US \$8,000);
- (h) *Activities to maintain energy efficiency:* Activities are described in detail in the following section (UNEP) (US \$40,000) and (UNIDO) (US \$60,000); and
- (i) *Project coordination, monitoring and reporting:* Monitoring trends in the use of HCFCs and substitutes; reporting on project progress; organizing regular monitoring visits to stakeholders and partner institutions to ensure compliance and the sustainability of implemented activities; and preparing an analysis report on gender in the RAC servicing sector (UNIDO) (US \$17,000).

Activities to maintain energy efficiency in the refrigeration servicing sector

14. The project related to energy efficiency, submitted in line with decision 89/6, is designed to enhance coordination in promoting low-GWP alternatives and energy-efficient RAC equipment among key national stakeholders. It is expected to help the country sustain its HCFC phase-out and strengthen the RAC servicing sector. The description and proposed cost breakdown of activities to maintain energy efficiency in the sector are presented in table 2.

Table 2. Additional activities proposed to maintain energy efficiency in the servicing sector

Activity	Performance indicators	Cost (US \$)
Cooperation to improve energy efficiency labelling and MEPS applied to the RAC sector (UNEP)		
Conduct cooperation and dialogue sessions among energy efficiency policymakers to promote low-GWP refrigerants-based RAC equipment, labelling programme, and, as decided by the stakeholders, update and adoption of additional energy efficiency standards of RAC equipment	-At least two dialogue sessions for 40 stakeholders (20 each); -Report on findings and recommendations	9,000
Define strategies to improve energy efficiency labelling and MEPS in domestic and commercial RAC equipment with support of energy efficiency policymakers	One report on findings and recommendations to improve energy efficiency policies	5,000
Conduct training workshops for customs, importers, manufacturers, and trade authorities on the identification and inspection of the parameters that define the energy efficiency classification of imported refrigerant-based products, the labelling programme and MEPS that govern the sector	Two workshops held for importers with 30 participants in each session	6,000
Subtotal		20,000

Activity	Performance indicators	Cost (US \$)
Strengthen awareness on the labelling programme and the use of RAC equipment with the highest efficiency and low-GWP refrigerants (UNEP)		
Develop an awareness raising campaign directed to RAC technicians, retailers, manufacturers, importers and end-users about the importance and advantages of offering, maintaining, and use RAC equipment with the highest energy efficiency rates, and low-GWP refrigerants	-Training programmes for importers, distributors, retailers' staff and end users on how to read the energy efficiency labels and the ODP and GWP values of the refrigerants; -One awareness video with general information on the labelling programme and the importance of choosing RAC equipment with the highest energy efficiency rates and low-GWP refrigerants; -Two infographics on how to interpret the energy efficiency labels and the importance of choosing RAC equipment with the highest energy efficiency rates and low-GWP refrigerants, to engage RAC technicians, importers, retailers and end users, with 3,000 copies to be distributed.	20,000
Subtotal		20,000
Strengthening and development of capacities to evaluate, maintain and improve the energy efficiency of existing RAC equipment (UNIDO)		
Carry out an analysis on the teaching-learning process on energy efficiency applied to the RAC sector by vocational training institutes and basic schools at the national level in the RAC sector, specifying improvement issues and proposing training curricula	-One report on findings and recommendations; -One training curriculum proposed to include energy efficiency topics	6,000
Develop a document that provides useful information for technicians and end-users to verify the RAC system's performance, including diagnosis and repair of the system's failures in order to improve its energy efficiency	One guide/document drafted	6,000
Deliver eight kits to vocational training institutes and basic schools that support the training of technicians in determining RAC system's performance and its energy efficiency	Eight kits ⁵ delivered for vocational training institutes and selected basic schools	40,000
Conduct training workshops for trainers and technicians on procedures to check the performance of RAC systems, including diagnosing and correcting the system's functions to improve energy efficiency	Four workshops held for trainers and technicians with 20 participants in each session	8,000
Subtotal		60,000
Total		100,000

⁵ Each kit would include multimeters, wattmeters or network analyzers, anemometers, laser thermometers, contact thermometers.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Early submission

15. As per the Agreement between the Government of Guatemala and the Executive Committee, the second tranche of stage II of the HPMP is only due at the 95th meeting, in 2024. Given the substantive progress and level of disbursement achieved so far, and upon consultation with the Secretariat, UNIDO submitted the present request in advance to the scheduled date. The Secretariat reviewed and recommends approval of the tranche based on the level of progress and disbursement achieved (UNIDO had disbursed by the end of August 2023 the equivalent to 99.97 per cent, and UNEP had disbursed an equivalent to 58.14 per cent of the total received); and noting that postponing the approval of this tranche could disrupt the momentum of the implementation, and that after the approval of all projects and activities programmed in the business plan for this year, there would be sufficient funds for the approval of this tranche.

Report on HCFC consumption and verification

16. UNIDO affirmed that the Government is committed to applying the recommendations contained in the verification reports, as this would prevent future reporting errors and would further strengthen the operational licensing and quota system. Regarding the recommendations made in the previous verification report and reiterated in the new report, it was communicated by UNIDO that MARN intends to comply with all recommendations, and is currently analysing them to identify aspects that will allow an improvement in the control system for controlled substances to address them.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

17. The Government of Guatemala issued HCFC import quotas for 2023 at 2.45 ODP tonnes, which is lower than the Montreal Protocol control targets. Guatemala established a license and registration system of technicians in 2018, and adopted the labour competency standard "Good practices for the recovery and charge of refrigerants in refrigeration and air conditioning systems" in 2021. The labour certification process is expected to be implemented with the support of INTECAP under the second tranche.

Refrigeration servicing sector

18. Regarding the certification of technicians, UNIDO confirmed that following a delay caused by the COVID-19 pandemic and administrative issues with both MARN and INTECAP, conditions were currently in place to start the technician certification process under the second tranche and to achieve the goal of certifying 100 technicians.

19. Regarding the commitment to establish regulatory measures to control intended emissions of refrigerant during installation, servicing and decommissioning by 1 January 2024, UNIDO reported that as in the short term the Government of Guatemala does not have the administrative and technical capacity to issue and enforce regulations on this matter, the Government intends to achieve the same goal through other means, such as the adoption of technical standards complemented by training, development of manuals on leak prevention, and awareness raising activities. The Secretariat suggested that UNIDO and the Government continue exploring additional measures to help reduce refrigerant emissions during servicing, and report on any additional progress on this matter in the next tranche request.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan*Activities to maintain energy efficiency in the refrigeration servicing sector*

20. In line with decision 89/6(d), UNIDO and UNEP have included in the tranche implementation plan the specific actions, performance indicators and funding associated with additional activities to maintain energy efficiency. These activities, to be completed from January 2024 to December 2026, are expected to generate training plans that will strengthen the knowledge of technicians regarding procedures and technical issues for the introduction of alternatives to HCFCs with low or zero GWP and for maintaining energy efficiency in the refrigeration servicing sector. They will also enhance collaboration and involvement with the national Energy Agenda.

21. UNIDO explained that the NOU plans to define strategies with the support of the energy efficiency policymakers to improve the existing MEPS in RAC equipment. The approach of this project does not yet define with certainty whether the activities to be carried out include the update and adoption of additional MEPS. This decision will be made in consensus with the corresponding stakeholders.

22. UNIDO also clarified that the guide to be produced will provide useful information for technicians related to the verification of the RAC system's performance, including diagnosis and repair of the system's failures in order to improve its energy efficiency. The guide will be developed taking into account the good refrigeration practices described in the manuals produced under the HPMP, and will be disseminated in workshops and training of technicians.

23. It was also explained by UNIDO that the tools to be provided to the vocational training institutes are intended to assist both the instructors and technicians in determining the energy performance of RAC equipment, and in verifying the gains in energy efficiency obtained from using alternative refrigerants. The tools have not been provided under the HPMP.

Gender policy implementation

24. During the implementation of the first tranche of stage II of the HPMP, UNIDO and the Government focused on fostering the incorporation of the gender perspective into the implemented activities. Women were encouraged to participate in training courses to strengthen their capacity and help increase their access to better opportunities and working conditions. The project required the collection of sex-disaggregated data, where applicable, and qualitative information to analyze and track gender issues and promote a gender-balanced recruitment of project personnel. This approach will continue during the implementation of the second tranche.

25. Regarding training initiatives to be undertaken with gender focal points and other stakeholders, UNIDO confirmed that MARN plans to develop activities to integrate the gender policy into project planning and implementation of stage II. MARN will also encourage stakeholders to mainstream gender into Montreal Protocol activities.

Updated Agreement

26. In view of the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector and the accordingly revised funding schedule, the Agreement between the Government of Guatemala and the Executive Committee has been updated. Specifically, Appendix 2-A has been revised and paragraph 17 has been added to indicate that the updated Agreement supersedes that reached at the 86th meeting, as contained in annex I to the present document. The full updated Agreement will be appended to the final report of the 93rd meeting.

Sustainability of the HCFC phase-out and assessment of risks

27. In addition to the licensing and quota system, operational since 2015, the Government Agreement No. 317/2019, introduced the registration of importers, and procedure for the import license of RAC equipment, and refrigerant substances, including HCFCs, HFCs, and their natural and synthetic alternatives. The banning of HCFC-141b in all its applications has been included in the proposal to the updated Government Agreement No. 137-2016, which is expected to come into effect in the first quarter of 2024.

28. The sustainability of the technicians training and keeping up to date is also being ensured by Ministerial Agreement 340-2018 and Government Agreement No. 137-2016, whose amendments, close to be adopted, introduce among the requirements to get the license as an authorized RAC technician, to first obtain the certificate for labour competencies.

29. Noting the robust regulatory framework and the active involvement of the NOU, which has ensured the engagement of and collaboration with the Government, training institutes and the private sector, the risk of delays in the implementation of the second tranche of stage II of the HPMP appears low. A wide range of government departments and institutions have been involved in the formulation and implementation of HPMP strategy, and assessment tools used in national reports have been integrated to identify the environmental, economic, and social effects and benefits for the country. The Secretariat considers that the implementation of the recommendations contained in the verification reports will help reduce the risk of errors in the recording of imports and reporting of consumption.

Conclusion

30. The verified HCFC consumption in 2020, 2021 and 2022 was, for all years, below the HCFC baseline, and below the maximum allowable consumption under the Agreement with the Executive Committee. The Government of Guatemala, with the assistance of UNIDO and UNEP, implemented an extensive set of activities to strengthen the national capacity to control trade in HCFCs and HCFC-based equipment, and provide training to technicians; restarted preparations for the certification of RAC technicians after the COVID-19 pandemic; upgraded and made sustainable the RRR network; included good refrigeration practices in the Basic National Curriculum of intermediate and diversified level with training programmes for RAC; promoted refrigerant containment and leakage reduction among large end-users; and conducted a fruitful event on Women in the Refrigeration and Air-Conditioning Sector. The overall disbursement rate stands at 89.55 per cent of the approved funding. The activities proposed to maintain energy efficiency in the refrigeration servicing sector are consistent with Executive Committee's decision 89/6.

RECOMMENDATION

31. The Fund Secretariat recommends that the Executive Committee:

(a) Note:

- (i) The progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for Guatemala;
- (ii) The submission of additional activities to maintain energy efficiency in the refrigeration servicing sector in the amount of US \$109,400, consisting of US \$60,000, plus agency support costs of US \$4,200, for UNIDO and US \$40,000, plus agency support costs of US \$5,200, for UNEP; and

- (iii) That the Fund Secretariat has updated the Agreement between the Government of Guatemala and the Executive Committee, as contained in annex I to the present document, specifically: Appendix 2-A, based on advancing the 2024 tranche by a year; to reflect the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector referred to in subparagraph (a)(ii) above; and paragraph 17 that has been added to indicate that the updated Agreement supersedes that reached at the 86th meeting; and

32. The Fund Secretariat further recommends blanket approval of the second tranche of stage II of the HPMP for Guatemala, and the corresponding 2024-2026 tranche implementation plan, at the funding levels shown in the table below.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	242,900	17,003	UNIDO
(b)	HCFC phase-out management plan (stage II, second tranche)	76,000	9,880	UNEP

Annex I

TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF GUATEMALA AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

(Relevant changes are in bold font for ease of reference)

17. This updated Agreement supersedes the Agreement reached between the Government of the Guatemala and the Executive Committee at the 86th meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2020	2021-2022	2023	2024	2025-2026	2027	2028-2029	2030	Total	
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	5.4	5.4	5.4	5.4	2.7	2.7	1.2	0	n/a	
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	5.4	5.4	5.4	5.4	2.7	2.7	1.2	0	n/a	
2.1	Lead IA (UNIDO) agreed funding (US \$)	129,600	0	242,900	0	0	58,500	0	91,500	522,500	
2.2	Support costs for Lead IA (US \$)	9,072	0	17,003	0	0	4,095	0	6,405	36,575	
2.3	Cooperating IA (UNEP) agreed funding (US \$)	43,000	0	76,000	0	0	43,000	0	33,000	195,000	
2.4	Support costs for Cooperating IA (US \$)	5,590	0	9,880	0	0	5,590	0	4,290	25,350	
3.1	Total agreed funding (US \$)	172,600	0	318,900	0	0	101,500	0	124,500	717,500	
3.2	Total support costs (US \$)	14,662	0	26,883	0	0	9,685	0	10,695	61,925	
3.3	Total agreed costs (US \$)	187,262	0	345,783	0	0	111,185	0	135,195	779,425	
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)										5.1
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)										1.8
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)										0
4.2.1	Total phase-out of HFC-124 agreed to be achieved under this Agreement (ODP tonnes)										0.1
4.2.2	Phase-out of HFC-124 to be achieved in the previous stage (ODP tonnes)										0.0
4.2.3	Remaining eligible consumption for HFC-124 (ODP tonnes)										0
4.3.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)										0.0
4.3.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)										1.1
4.3.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)										0
4.4.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)										0.2
4.4.2	Phase-out of HCFC-142b to be achieved in the previous stage (ODP tonnes)										0
4.4.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)										0
4.5.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)										0
4.5.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in the previous stage (ODP tonnes)										1.4
4.5.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)										0

Note: The date of completion of stage I as per the stage I Agreement is 31 December 2021.