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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-sixth Meeting
Montreal, 2-6 November 2020
Postponed to 8-12 March 2021¹

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, first tranche) UNIDO and UNEP

¹ Due to coronavirus disease (COVID-19).

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.

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

GUATEMALA

(I) PROJECT TITLE	AGENCY
HCFC phase-out plan (stage II)	UNIDO (lead), UNEP

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2019	3.86 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2019	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					3.39				3.39
HCFC-123					0.01				0.01
HCFC-141b					0.46				0.46

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	8.3	Starting point for sustained aggregate reductions:	9.7
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	4.3	Remaining:	5.4

(V) BUSINESS PLAN		2020	2021	2022	After 2022	Total
UNIDO	ODS phase-out (ODP tonnes)	1.10	0.00	1.10	0.60	2.8
	Funding (US \$)	50,000	0	50,000	34,687	134,687
UNEP	ODS phase-out (ODP tonnes)	0.27	0.00	0.00	2.70	2.97
	Funding (US \$)	34,147	0	0	51,221	85,368

(VI) PROJECT DATA			2020	2021	2022-2023	2024	2025-2026	2027	2028-2029	2030	Total
Montreal Protocol consumption limits			5.40	5.40	5.40	5.40	2.70	2.70	2.70	0	n/a
Maximum allowable consumption (ODP tonnes)			5.40	5.40	4.57	4.57	2.70	2.70	1.25	0	n/a
Projects costs requested in principle (US \$)	UNIDO	Project costs	129,600	0		182,900	0	58,500	0	91,500	462,500
		Support costs	9,072	0		12,803	0	4,095	0	6,405	32,375
	UNEP	Project costs	43,000	0		36,000	0	43,000	0	33,000	155,000
		Support costs	5,590	0		4,680	0	5,590	0	4,290	20,150
Total project costs requested in principle (US \$)			172,600	0		218,900	0	101,500	0	124,500	617,500
Total support costs requested in principle (US \$)			14,662	0		17,483	0	9,685	0	10,695	52,525
Total funds requested in principle (US \$)			187,262	0		236,383	0	111,185	0	135,195	670,025

(VII) Request for approval of funding for the first tranche (2020)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNIDO	129,600	9,072
UNEP	43,000	5,590
Total	172,600	14,662

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

Background

1. On behalf of the Government of Guatemala, UNIDO as the lead implementing agency has submitted a request for stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$670,025, consisting of US \$462,500, plus agency support costs of US \$32,375 for UNIDO, and US \$155,000, plus agency support costs of US \$20,150 for UNEP, as originally submitted.² The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.
2. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$187,262, consisting of US \$129,600, plus agency support costs of US \$9,072 for UNIDO, and US \$43,000, plus agency support costs of US \$5,590 for UNEP, as originally submitted.
3. In accordance with the conditions of approval of the fifth and final tranche of stage I of the HPMP under the intersessional approval process (IAP) for the 85th meeting in May 2020,³ the Government of Guatemala has submitted the verification report on HCFC consumption for 2016 to 2019.

Status of implementation of stage I of the HPMP

4. Stage I of the HPMP was originally approved at the 64th meeting⁴ and revised at the 68th meeting⁵ to achieve the 35 per cent reduction from the HCFC baseline by 2020, at a total cost of US \$442,137, plus agency support costs, to phase out 4.3 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector (US \$332,500) and in the foam sector (US \$109,637). At the 75th meeting, a penalty of 15 per cent of funding of the third tranche was applied due to the country's non-compliance with its Agreement with the Executive Committee,⁶ resulting in a deduction of US \$14,816, plus agency support costs, from the UNEP component. Stage I of the HPMP will be completed by 31 December 2021.

HCFC consumption

5. The Government of Guatemala reported a consumption of 3.86 ODP tonnes of HCFC in 2019, which is 54 per cent below the HCFC baseline for compliance. The 2015-2019 HCFC consumption is shown in Table 1.

² As per the letter of 9 July 2020 from the Ministry of Environment and Natural Resources of Guatemala (MARN) to UNIDO.

³ Noting that the completion of the verification report would be delayed for several months given the constraints arising from the COVID-19 pandemic, the funding tranche request was approved on an exceptional basis and without setting a precedent, on the understanding that: (a) the Treasurer would be requested to transfer the approved funds to UNIDO; (b) UNIDO had committed to submitting the verification report no later than 12 weeks prior to the 86th meeting; (c) the recommendations included in the verification report would be addressed during the implementation of the fifth tranche and that the actions implemented towards that end would be included in the progress report of stage I of the HPMP to be submitted as part of the country's request for its stage II of the HPMP; and (d) in the unlikely event of non-compliance by the Government of Guatemala with its Agreement with the Executive Committee, relevant actions would be taken by the Executive Committee.

⁴ UNEP/OzL.Pro/ExCom/64/33

⁵ Annex XII of UNEP/OzL.Pro/ExCom/68/53

⁶ The HCFC consumption of 9.84 ODP tonnes reported for 2013 was 1.54 ODP tonnes above the established baseline for compliance. This situation was mainly associated with a delay in establishing the consumption quota for 2013. Consequently, the Twenty-sixth Meeting of the Parties determined that Guatemala was in non-compliance with the control measures under the Montreal Protocol for HCFCs (decision XXVI/16).

Table 1. HCFC consumption in Guatemala (2015-2019 Article 7 data)

HCFC	2015	2016	2017	2018	2019	Baseline
Metric tonnes (mt)						
HCFC-22	61.80	66.97	49.66	67.97	61.64	126.9
HCFC-123	0.00	0.45	0.73	0.00	0.54	0.1
HCFC-124	0.49	0.00	0.00	0.00	0.00	5.2
HCFC-141b	9.89	17.29	5.53	5.22	4.19	9.8
HCFC-142b	0.00	0.00	0.00	0.00	0.00	1.7
Total (mt)	72.18	84.71	55.93	73.19	66.37	143.8
HCFC-141b in imported pre-blended polyols*	13.81	7.74	0.27	0.00	0.00	12.73**
ODP tonnes						
HCFC-22	3.40	3.68	2.73	3.74	3.39	7.0
HCFC-123	0.00	0.01	0.01	0.00	0.01	0.0
HCFC-124	0.01	0.00	0.00	0.00	0.00	0.1
HCFC-141b	1.09	1.90	0.61	0.57	0.46	1.1
HCFC-142b	0.00	0.00	0.00	0.00	0.00	0.1
Total (ODP tonnes)	4.50	5.59	3.36	4.31	3.86	8.3
HCFC-141b in imported pre-blended polyols*	1.52	0.85	0.03	0.00	0.00	1.4**

* Country programme (CP) data.

** Average consumption between 2007 and 2009.

6. HCFC consumption has been decreasing since 2016 due to the strict enforcement of the licensing system, the implementation of the activities included in the HPMP and the ban on the import of HCFC-based equipment implemented in 2015. HCFC consumption has been below the 2020 target of 5.4 ODP tonnes since 2017. There have been no imports of HCFC-141b contained in pre-blended polyols since 2018 due to the complete phase-out in the foam sector, or imports of HCFC-124 or HCFC-142b (contained in blends) since 2014 and 2015, respectively.

CP implementation report

7. The Government of Guatemala reported HCFC sector consumption data under the 2019 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

8. The verification report confirmed that the consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2016 to 2019 was correct (as shown in Table 1 above) except for 2018, where the verified consumption of 4.04 ODP tonnes was slightly below the reported consumption of 4.31 ODP tonnes due to the export of 0.27 ODP tonnes of HCFC-22 that was not included in the report. UNIDO informed the Secretariat that the National Ozone Unit (NOU) would officially request an amendment to the licensing system to avoid the export of ODS without a licence, and that the Government of Guatemala planned to submit a revision of Article 7 data for 2018.

9. The verification report recommends *inter alia*: strengthening HCFC import control; including additional information on import licences; a national training plan for customs brokers; the redesign of the quota distribution and management system to achieve full utilization of the country's import capacity; and ensuring that the licences explicitly include their date of validity of 31 December of the year of issuance. UNIDO confirmed that the country would implement the recommendations during the fifth (final) tranche of stage I and during stage II of the HPMP.

Status of progress and disbursement

Legal framework

10. The Government of Guatemala established a regulatory system to control HCFCs that includes an operational HCFC import licensing and quota system. Since 2019 the system includes licenses for the import of HFCs and for alternatives to controlled substances. The Government has also introduced the licensing system information into the informal Prior Informed Consent (iPIC) electronic portal developed by UNEP; has established a ban on the import of HCFC-based equipment as of 1 January 2015; a ban on the import of HCFC-141b in bulk and in pre-blended polyols, which is expected to enter into force as of 1 January 2021 (originally planned for 1 October 2020); and established a national registry for refrigeration technicians and enterprises in 2018. A total of 277 customs officers were trained between 2013 and mid-2020, and the General Administration of Customs of Guatemala has received five refrigerant identifiers for training and trade-control activities.

Manufacturing sector

11. The domestic refrigerator producer, Fogel, completed conversion of the insulation foam in domestic and commercial refrigeration equipment, replacing 13.10 mt (1.44 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols with cyclopentane.

Refrigeration servicing sector

12. HCFC demand in the refrigeration servicing sector was reduced through the training of trainers and RAC technicians, the upgrade of training centres, and the introduction of alternative refrigerants. A total of 11 training centres received equipment and toolkits and 25 of their instructors were trained in using low-global-warming potential (GWP) alternatives, including general procedures for the safe handling of hydrocarbon refrigerants (HCs). About 1,793 technicians of the estimated 4,000 technicians in Guatemala received training under stage I of the HPMP. RAC training workshops covered good refrigeration practices including recovery and recycling, leak detection, the use of alternatives to HCFC-141b for flushing, characteristics of low-GWP alternatives to ODS refrigerants, and since 2018 the safe handling of HCs. A RAC technician licensing and registration system was created, and a labour competency has been drafted as part of a process to develop a mandatory certification scheme to be administered by the Technical Institute of Training and Productivity (INTECAP). Fifteen servicing workshops were visited, to promote alternatives to HCFC-141b for flushing refrigeration systems. Two refrigerant recovery, recycling and reclaiming (RRR) centres were created in Guatemala City: one at Fogel, and the other at INTECAP.

13. Forty-two end-users received training on alternatives to ODS refrigerants and maintenance of RAC equipment. A “Zero Leaks” project was implemented at a chicken processing plant to reduce HCFC-22 leaks at the RAC equipment installed, and monitor system performance and energy consumption throughout the project.

14. Since the approval of the fifth tranche in June 2020, two one-week virtual training courses were implemented to train 65 RAC technicians and 67 stakeholders, including importers of refrigerants and RAC equipment. A contract for a consultant to support the control of trade in HCFCs and HCFC-based equipment is being finalized.

Level of fund disbursement

15. As of July 2020, of the US \$427,321 approved under stage I (US \$345,637 for UNIDO and US \$81,684 for UNEP), US \$374,023 had been disbursed (US \$309,538 for UNIDO and US \$64,485 for UNEP). The balance of US \$53,298 (including US \$33,000 approved for the fifth (final) tranche) will be

disbursed in 2020 and 2021. UNIDO confirmed that the first disbursement from the fifth (final) tranche is scheduled in the near future for further training of RAC technicians and the purchase of tools.

Stage II of the HPMP

Remaining consumption eligible for funding

16. After deducting 4.3 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding amounts to 5.4 ODP tonnes (i.e., 5.1 ODP tonnes of HCFC-22, 0.2 ODP tonnes of HCFC-142b, and 0.1 ODP tonnes of HCFC-124).

Sector distribution of HCFCs

17. HCFC-22 is mainly consumed to service residential and commercial air-conditioning (AC) units, commercial cold stores, and chillers, as shown in Table 2. The annual consumption for refrigeration servicing amounts to 61.62 mt of HCFC-22, used by approximately 4,000 technicians, of whom 622 are registered. Two female RAC technicians are registered and licensed under Ministerial Agreement 340 2018; eight female RAC technicians have attended training workshops; and female students are currently attending the RAC classes at the Technical Vocational Education and Training (TVET) programme. Most of the commercial refrigeration equipment is more than five years old, while commercial AC units are typically 10 years old or older and serviced by non-certified technicians. The use of HCFC-141b for flushing refrigeration circuits will be phased out when the ban on the import of HCFC-141b in bulk and in pre-blended polyols enters into force on 1 January 2021.

Table 2. Sectoral distribution of HCFC-22 in Guatemala in 2019

Sector/Applications using HCFC-22		Equipment inventory	Refrigerant charged (mt)	Leakage rate (%)	Consumption (mt)
Commercial refrigeration	Condensing unit	4,623	83.22	7.4	6.16
	Centralized system	1,040	41.61	7.4	3.08
Industrial refrigeration		2,023	141.59	7.4	10.48
Residential AC		467,454	327.22	7.4	24.22
Commercial AC		69,387	208.16	7.4	15.41
Others (e.g., chillers, milk tanks, industrial AC)		1,560	30.70	7.4	2.27
Total		546,087	832.50		61.62

18. The main imported HFC refrigerants are HFC-134a, R-410A, R-404A and R-507A, which account for almost 91 per cent of ODS alternatives used in the RAC sector.

Phase-out strategy in stage II of the HPMP

19. Stage II of the HPMP aims to meet the 67.5 per cent reduction from its HCFC baseline by 2025, and 100 per cent by 2030, and will build upon the experience gained during implementation of stage I. In order to minimize the introduction of HFC-based RAC equipment as alternatives to HCFCs, the Government proposes to reinforce training in good practices with a focus on refrigerant containment and capacity-building for the safe handling of flammable refrigerants; implement mandatory certification for labour competencies for RAC technicians; and establish a specialized training centre on the safe handling of flammable refrigerants during installation, operation, repair, maintenance and decommissioning of RAC equipment. End-users will also receive technical assistance to reduce leakage of refrigerants and energy consumption of their RAC equipment, while the availability of HCFC refrigerants ensured by recovery and reclamation will extend the life of equipment. Zero-ODP, low-GWP and energy-efficient technology choices to replace HCFC-based equipment reaching its end-of-life will be demonstrated through pilot projects in different RAC applications.

Proposed activities in stage II of the HPMP

20. The activities included in stage II of the HPMP are presented below:

- (a) *Strengthening the legal framework for HCFC phase-out:* establishing regulations for mandatory RAC technician certification based on labour competencies; enforcing the established ban on the use of HCFC-141b for flushing by 1 January 2021; a ban on disposable cylinders; regulations on record keeping practices and schedules for leakage checks; regulation to restrict the import of RAC equipment based on energy efficiency criterion; policies on the life-cycle approach to managing substances controlled by the Montreal Protocol and the equipment that contains them; consultation meetings with Government entities and 10 outreach meetings for stakeholders on regulations related to the Montreal Protocol (UNEP) (US \$35,000);
- (b) *Technical assistance to strengthen the control of trade of HCFC-based substances and equipment/products:* annual planning meetings with the customs department to define an annual work plan; improvements to the licensing and quota system based on the recommendations of the verification report; 10 training courses for customs and enforcement inspectors on import controls on Montreal Protocol substances and the equipment containing them, each for approximately 30 participants; development of an online customs training module; five annual visits to refrigerant retailers to collect local market information on refrigerants availability, prices and consumption trends; and purchase of five refrigerant identifiers for identification of refrigerant blends at customs entry points (UNEP) (US \$80,000);
- (c) *Strengthening the RAC technician certification process:* developing at least two labour competence standards for the safe handling of flammable/toxic refrigerants; evaluating and certifying 1,000 RAC servicing technicians according to a labour competency standard, at least 1,000 licences issued to certified RAC technicians; annual meetings with stakeholders to follow up on the implementation of the certification programme and 10 meetings targeting technicians and end-users to raise awareness on the certification process (UNIDO) (US \$30,000);
- (d) *Strengthening the training programme for RAC technicians:* 20 trainers to be trained every three years in good practices and handling of alternative refrigerants; 20 technical seminars on good refrigeration practices for a total of 600 technicians; development of a standard programme on good refrigeration practices and safe handling of non-ODP/low-GWP alternative refrigerants to incorporate into the curricula of the vocational institutes that provide RAC training; development of a manual on good refrigeration practices and a risk assessment guide on the safe handling of flammable refrigerants; creation of a specialized training centre for flammable refrigerants located at INTECAP in Guatemala City; purchase and distribution of 15 toolkits for technical colleges and two sets of tools for female technicians (tools to be determined based on needs); and two international study missions to update knowledge and share lessons on good refrigeration practices and alternative refrigerants (UNIDO) (US \$180,500);
- (e) *Upgrading the RRR network:* review of the status of the existing national network and needs assessment; development of a business model to strengthen and make sustainable the RRR network; establishment of one refrigerant reclaiming centre in southern Guatemala where the food industry sector (large HCFC consumer) is located; purchase of tools and equipment for the centre, including a reclaiming unit, a recovery unit, storage and recovery tanks, refrigerant identifier, moisture tester, cylinder cleaning and testing equipment, and spare parts; two study tours to a Latin American/Caribbean (LAC) country

to learn about the operating model of RRR centres with similar characteristics (UNIDO) (US \$112,400);

- (f) *Technical assistance to RAC end-users*: development of a refrigerant leakage control guide; establishment of an online technical support centre for end-users; at least one “Zero Leaks” project to provide technical assistance to reduce leakage at an end-user with high refrigerant consumption; at least one demonstration project to replace HCFC-22 equipment by low-GWP-based equipment at one end-user; and meetings to disseminate the results of pilot projects (UNIDO) (US \$67,000);
- (g) *Dissemination and awareness-raising*: a campaign to raise awareness on HCFC phase-out and activities under the HPMP relevant to RAC instructors and technicians, end-users, customs and enforcement officers; development and distribution of 5,000 educational brochures on *inter alia* recovery and recycling practices, technicians’ certification and proper decommissioning of HCFC-based equipment; participation of stakeholders in relevant trade fairs, exhibitions and conferences related to HCFC phase-out (UNEP) (US \$40,000); and
- (h) *Project coordination, monitoring and reporting*: hiring of one to three local experts to implement HPMP activities, monitor trends in the use of HCFC and substitutes, and report on project progress (US \$36,000); and regular compliance monitoring visits to RRR centres, customs, end-users and technical institutes to follow up on activities (US \$36,600) (UNIDO) (US \$72,600).

Total cost of stage II of the HPMP

21. The total cost of stage II of the HPMP amounts to US \$617,500, as originally submitted, for achieving complete phase-out of HCFCs by 2030, which is in accordance with decision 74/50(c)(xii) on the eligible funding level for a low-volume-consuming country.

Gender policy implementation

22. In line with decision 84/92(d),⁷ the Government of Guatemala has taken into account gender mainstreaming and equity in the implementation of stage II of the HPMP to ensure that men and women have equal opportunities to benefit from capacity-building activities such as RAC training and workshops and to participate in the decision-making process. A RAC training workshop exclusively for female technicians will be held once every three years in order to increase the participation of women in the RAC sector, and two toolkits will be provided to female technicians as an incentive. Recruitment procedures under the project will take into account gender balance. The results will be measured through the applicable indicators in the Multilateral Fund policy on gender.⁸

Activities planned for the first tranche of stage II

23. The first funding tranche of stage II of the HPMP, at the total amount of US \$172,600, will be implemented between January 2021 and December 2023 and will include the following activities:

- (a) *Strengthening the legal framework for HCFC phase-out*: strengthening legislation to establish the certification system as mandatory; formulating regulation to restrict the import

⁷ Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

⁸ It will include number of women and men that received/accessed information; number and percentage of events focussing on gender, including *inter alia* training, workshops, discussions, side events at conferences; and amount of gender-specific content disseminated.

of RAC equipment based on energy efficiency criterion; a ban on disposable cylinders for refrigerant recovery; and two outreach meetings for stakeholders on the new regulations developed (UNEP) (US \$13,000);

- (b) *Technical assistance to strengthen the control of trade of HCFC-based substances and equipment/products*: three updated training courses on import controls for controlled substances and equipment containing them for a total of 90 customs and enforcement inspectors; five visits to refrigerant retailers; review and redesign of the quota distribution system and the licensing process to fully utilize the country's import capacity; purchase of three refrigerant identifiers to be distributed to customs entry points; and annual planning meetings with the customs department (UNEP) (US \$20,000);
- (c) *Strengthening the RAC technicians' certification process*: formulation and validation of one labour competency standard for the safe handling of flammable refrigerants; three meetings to raise awareness on the certification process; evaluation and certification of 240 RAC technicians according to a labour competency standard, at least 140 licences issued to certified RAC technicians; and annual stakeholder meetings related to the licensing system and the RAC technician certification process by labor competencies (UNIDO) (US \$15,500);
- (d) *Strengthening the training programme for RAC technicians*: training course for 20 trainers on good refrigeration practices and alternative refrigerants emphasizing low-GWP alternatives; four technical seminars on good refrigeration practices for a total of 80 technicians, including female technicians; development of a standard training programme to incorporate in curricula of training institutes; development/update of a manual of good refrigeration practices and a risk assessment guide for the safe handling of flammable refrigerants; provision of eight toolkits for training institutes; one set of tools for a female RAC technician (including recovery machines, recovery cylinders, and vacuum pumps) (UNIDO) (US \$55,500);
- (e) *Upgrading the RRR network*: review of the status of the existing national network and a needs assessment; development of the business model to strengthen and make sustainable the RRR network; and two study tours to a LAC country with RRR centres to deepen the knowledge of the operating model of RRR centres with similar characteristics in other countries (UNIDO) (US \$15,000);
- (f) *Technical assistance to RAC end-users*: development of a refrigerant leakage control guide; providing online technical support to end-users; implementation of the "Zero Leaks" programme through a pilot project in a large refrigerant consumer in the commercial refrigeration sector (UNIDO) (US \$25,000);
- (g) *Dissemination and awareness*: a campaign to raise awareness on technical matters related to the implementation of the HPMP targeting RAC instructors and technicians, end-users, customs and enforcement officers (UNEP) (US \$10,000); and
- (h) *Project coordination, monitoring and reporting*: including staff and local consultants (US \$9,000) and monitoring visits (US \$9,600) (UNIDO) (US \$18,600).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

24. The Secretariat reviewed stage II of the HPMP for Guatemala in light of stage I, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2020-2022 business plan of the Multilateral Fund.

HCFC phase-out and duration of stage II

25. The Secretariat queried the rationale for selecting annual HCFC consumption targets in stage II equal to the Montreal Protocol control measures given that historical consumption in Guatemala has been consistently lower, that since 2015 the Government has set HCFC import quotas at 85 per cent of the allowable consumption and that HCFC consumption in 2019 (3.86 ODP tonnes) was already around 29 per cent below the 2020 target (5.40 ODP tonnes).

26. UNIDO explained that the HCFC import quotas had been set at 85 per cent of the allowable consumption in order to ensure compliance with the obligations under the Montreal Protocol target, noting that in 2013 the country was in non-compliance due to a delay in establishing the consumption quota for that year. However, it was expected that from 2020 the allocation of quotas would be in accordance with the maximum allowable consumption for the year. Following further consultations, UNIDO reported that the Government agreed to commit to annual consumption targets lower than those set out in the Montreal Protocol for 2022 and 2028, specifically a reduction in HCFC consumption by 45 per cent of the baseline in 2022 and 85 per cent of the baseline in 2028.

27. Upon a suggestion for achieving the complete phase-out prior to 2030, in light of the current levels of consumption of HCFCs, the regulations in place controlling the imports of some controlled substances and of HCFC-based equipment, and the servicing sector activities that have been and will continue to be implemented, UNIDO explained that accelerated phase-out in 2025 had not been selected considering the possible impact that a recovery in a post-COVID-19 scenario could have in terms of increased HCFC consumption. Based on the positive experience implementing stage I, the strategy selected by the Government (after consultations with all stakeholders) was for a single, final stage up to 2030, which would give sufficient time to obtain the needed response from the market, increase the availability of alternative refrigerants and allow the implementation of activities over a long period of time.

28. The Government of Guatemala indicated that it would not require any HCFC for servicing needs after 2030. While noting the commitment with appreciation, the Secretariat recalled the provisions of Article 5, paragraph 8 ter(e)(i)⁹ of the Montreal Protocol and paragraph 13 of decision XIX/6 and, in order to be equitable across Article 5 countries, recommended noting the commitment of the Government to completely phase out HCFCs by 1 January 2030, and that HCFCs would not be imported after that date, except for the allowance for a servicing tail between 2030-2040 where required, and consistent with the provisions of the Montreal Protocol.

29. Based on the strategy presented and the justification provided, the Secretariat supports the total HCFC phase-out approach for stage II selected by the Government of Guatemala.

Technical and cost-related issues

30. Further to discussions on the technicians' certification project, UNIDO explained that the certification should be operational in June 2021, once the labour competency has been validated by the

⁹ Other applications where HCFCs can be used include the servicing of fire suppression and fire protection equipment existing on 1 January 2030; solvent applications in rocket engine manufacturing; and topical medical aerosol applications for the specialized treatment of burns.

INTECAP, and should become mandatory in January 2026; also the number of technicians certified through this project would be increased from 800 initially proposed to 1,000 to facilitate the enforcement of the mandatory certification and to ensure safe handling of low-GWP alternatives (the revised number has already been reflected in the description of the activity in paragraph 18(c) of the present document).

31. Regarding the RRR project, the Secretariat questioned the need to expanding the current RRR infrastructure established in stage I and still in operation. UNIDO informed that one of the existing reclaim centres belongs to a private enterprise, Fogel, whereas the other one, set up in INTECAP in 2016, had reached its maximum capacity. Even though recovery and reclaiming process had been promoted to RAC technicians and end-users, the country did not have the capacity to operate a national network without a second reclaiming centre in the South of the country, where the agro-industry, a large consumer of HCFC-22, is located.

32. With regard to the business model for the RRR operation, UNIDO informed that INTECAP will offer reclaimed refrigerants to technicians and end-users at a lower price than virgin refrigerant; while the reclaimed refrigerant will be tested, it is not planned to comply with the level of purity specified in air-conditioning, heating and refrigeration (AHRI) standard 700, thus reducing the cost on infrastructure and operation.

33. The Secretariat also highlighted the importance of having refrigerant emission control measures¹⁰ to support RRR operations. UNIDO informed that under stage II, the Government will strengthen the regulatory framework to encourage the recovery and use of reclaimed refrigerant, including mandatory certification for RAC technicians; adopt by 2024 the life-cycle management of controlled substances, including control of refrigerant emissions/venting; and ban the reuse of disposable cylinders for refrigerant recovery.

34. Upon a suggestion to increase the impact of the “Zero Leaks” pilot project, instead of limiting it to assisting one or two end-users, UNIDO proposed to work in partnership with the refrigeration association, which should result in more end-users committing to adopting the Zero-Leaks approach. The project would provide a basis for establishing refrigerant emission control measures. Dissemination workshops at the end of the project are planned to encourage a large number of commercial and industrial end-users to adopt the Zero-Leaks approach.

35. The technical assistance to RAC end-users also includes a pilot replacement of HCFC-based RAC equipment, to be implemented only in 2028, thus allowing sufficient time for the enabling conditions to be put in place (e.g., increase in the price of HCFC-22, broader availability of low-GWP alternatives, and higher potential for replicability) to ensure a sustained replacement of HCFC technology by low-GWP technology in Guatemala. UNIDO further explained that the potential sectors to be addressed would include *inter alia* dairy processing, food industry, hotels, or supermarkets (with large installations of RAC equipment); that US \$25,000 requested from the Fund would be used for technical assistance to the end-user, a small portion of the cost of the equipment, monitoring and dissemination of results; and that the programme would be linked with other HPMP activities (e.g., technician training and the RRR project which would process the HCFC-22 recovered from the replaced equipment). The Secretariat supports the approval in principle of this activity, noting that UNIDO will provide by the time of submission of the third tranche in 2027, detailed information on the planned pilot replacement and its compliance with all of the requirements of decision 84/84 in order to be considered for funding.

¹⁰ E.g., penalties (for end-users and/or technicians) for intentional venting of HCFC into the atmosphere during installation, operation, servicing and decommissioning of RAC equipment; mandatory leak checking for larger equipment; or mandatory recovery of HCFC from containers and equipment at end-of-life.

Plan of action for the first tranche and implementation amid COVID-19

36. The Secretariat notes the efforts by the Government, stakeholders, UNIDO and UNEP to ensure the continued implementation of activities supported by the Multilateral Fund during the COVID-19 pandemic. E-learning/training for technicians and stakeholders in good servicing practices has been implemented with remarkable results and will continue as needed.

37. In light of the current situation, the distribution of tranches for stage II of the HPMP has already considered possible contingencies during the first year of implementation. UNIDO also indicated that the Government and implementing agencies would address the potential implementation challenges while the health regulations and travel restrictions remained in force; for example, in the event that international consultants were not able to travel, the National Ozone Officer together with the implementing agencies would formulate a contingency plan to redesign and/or reschedule activities and make use of digital platforms where possible.

Impact on the climate

38. The proposed activities in the servicing sector, which include better containment of refrigerants through training and provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in savings of approximately 1.8 CO₂-equivalent tonnes. The activities planned by the Government of Guatemala, including its efforts to promote low-GWP alternatives, energy-efficient technology and training in good servicing practices, including refrigerant recovery and reuse, indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

Co-financing

39. Although an estimation of the level of co-financing was not included in the HPMP, UNIDO indicated that the operation and administrative costs of the RRR centres would be covered by the centres themselves. As for the implementation of the pilot project for the replacement of HCFC-based equipment with low-GWP-based equipment, the beneficiary would contribute a large portion of the cost of implementation.

2020-2022 draft business plan of the Multilateral Fund

40. UNIDO and UNEP are requesting US \$617,500, plus agency support costs, for the implementation of stage II of the HPMP for Guatemala. The total requested value of US \$187,262, including agency support costs for the period of 2020–2022, is US \$53,115 above the amount in the business plan.

Draft Agreement

41. A draft Agreement between the Government of Guatemala and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

RECOMMENDATION

42. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Guatemala for the period from 2020 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$670,025, consisting of US \$462,500, plus agency support costs of US \$32,375 for UNIDO, and US \$155,000, plus agency support costs of US \$20,150 for UNEP, on the understanding that no more funding would be provided from the Multilateral Fund for the phase-out of HCFCs;

- (b) Noting the commitment of the Government of Guatemala:
 - (i) To reduce HCFC consumption by 45 per cent of the country's baseline by 2022, 67.5 per cent by 2025 and 85 per cent by 2028 and completely phase out HCFCs by 1 January 2030, and that HCFCs would not be imported after that date, except for the allowance for a servicing tail between 2030-2040 where required, and consistent with the provisions of the Montreal Protocol;
 - (ii) To issue a ban on the import of HCFC-141b for flushing from 1 January 2021; and
 - (iii) To establish regulatory measures to control intended emissions of refrigerant during installation, servicing and decommissioning by 1 January 2024;
- (c) Deducting 5.4 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Guatemala and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP, contained in Annex I to the present document; and
- (e) Approving the first tranche of stage II of the HPMP for Guatemala, and the corresponding tranche implementation plans, in the amount of US \$187,262, consisting of US \$129,600, plus agency support costs of US \$9,072 for UNIDO, and US \$43,000, plus agency support costs of US \$5,590 for UNEP.

Annex I

DRAFT 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

Purpose

1. This Agreement represents the understanding of the Government of Guatemala (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in rows 4.1.3 , 4.2.3, 4.3.3, 4.4.3 and 4.5.3 (remaining consumption eligible for funding).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
 - (b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;
 - (c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each

previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

- (d) That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

Monitoring

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

- (a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
 - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
 - (ii) Changes which would modify any clause of this Agreement;
 - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches;
 - (iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche; and
 - (v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;
- (b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report;
- (c) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, in particular:

- (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) The Country and relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

Bilateral and implementing agencies

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNIDO has agreed to be the lead implementing agency (the “Lead IA”) and UNEP has/have agreed to be the cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of the Lead IA and Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring coordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall coordination of the Lead IA. The roles of the Lead IA and Cooperating IA are contained in Appendix 6-A and Appendix 6-B, respectively. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

Non-compliance with the Agreement

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, and the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.

Date of completion

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

16. This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	6.9
HCFC-124	C	I	0.1
HCFC-141b	C	I	1.1
HCFC-142b	C	I	0.2
Sub-total			8.3
HCFC-141b contained in imported pre-blended polyols	C	I	1.4
Total			9.7

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2020	2021-2023	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	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	2.7	2.7	1.2	0	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	129,600	0	182,900	0	58,500	0	91,500	462,500
2.2	Support costs for Lead IA (US \$)	9,072	0	12,803	0	4,095	0	6,405	32,375
2.3	Cooperating IA (UNEP) agreed funding (US \$)	43,000	0	36,000	0	43,000	0	33,000	155,000
2.4	Support costs for Cooperating IA (US \$)	5,590	0	4,680	0	5,590	0	4,290	20,150
3.1	Total agreed funding (US \$)	172,600	0	218,900	0	101,500	0	124,500	617,500
3.2	Total support costs (US \$)	14,662	0	17,483	0	9,685	0	10,695	52,525
3.3	Total agreed costs (US \$)	187,262	0	236,383	0	111,185	0	135,195	670,025
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.

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the second meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of five parts:

- (a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting the situation of the Country in regard to phase-out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the

Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes;

- (b) An independent verification report of the Plan results and the consumption of the Substances, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
 - (c) A written description of the activities to be undertaken during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
 - (d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and
 - (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).
2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:
- (a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and
 - (b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The Ministry of Environment and Natural Resources (MARN) is the executing agency and the focal point of the Montreal Protocol in Guatemala.
2. The activities corresponding to the implementation of the Protocol are within the Department for the Environmentally Sound Management of Chemical Products and Hazardous Wastes of Guatemala under the responsibility of the Montreal Protocol Unit (MPU).
3. The implementation of all the activities of the components within the Plan is included in the annual plan of the MARN and regular monitoring is done by the boards of this institution and its implementing agencies. The activities include:

- (a) Management and coordination of the implementation of the plan;
- (b) Establishment of a policy development and application programme to allow the Government to exercise the required mandates and ensure the industry fulfilment with the obligations of the ODS consumption reduction;
- (c) Regular monitoring of the trends and attitudes in the local private sector related to the HCFC use and its possible substitutes;
- (d) Development and implementation of training, awareness and capacity-building activities to ensure a high-level commitment to the Plan objectives and obligations;
- (e) Preparation of annual implementation plans, including the determination of the sequence of participation of enterprises in the activities;
- (f) Establishment and operation of a report system on the ODS use/substitutes by the users;
- (g) Design and implementation of the corrective measures;
- (h) Regular implementation of activities of technical assistance to the project beneficiaries;
- (i) Preparation of annual progress reports, biannual reports on the HPMP implementation, and biannual implementation plan for the Executive Committee of the Multilateral Fund, according to the defined format, including the preparation of any other report necessary for the adequate operation of the HPMP project; and
- (j) Establishment and operation of the decentralized mechanism to monitor and evaluate the plan results, in association with local environmental regulatory entities to ensure sustainability.

4. The Government will create strategic alliances with other government bodies, industry associations, and academic institutions, which will allow it to strengthen the strategy and expand its range of action, such as training institutions that support the whole training programme to the sectors involved in the use of the refrigerants to be phased out and the alternatives to all the servicing sector; the Superintendence of Tax Administration (SAT) which organizes, guides and implements the regulations, among others, those related to the controlled substances by the Montreal Protocol. It carries out procedures, inspections and supervises the exports and imports of ODS substances. It executes the necessary operational measures to prevent smuggling and illegal trade of controlled substances. Together with the MPU, it inspects and verifies substances and equipment controlled by the Montreal Protocol. When required by the MPU, it prepares reports that serve as input to the reports that the country must submit in accordance with the Montreal Protocol.

5. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the agencies taking part in this Agreement.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including at least the following:
 - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's HPMP;

- (b) Assisting the Country in preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;
- (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;
- (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee, and should include the activities implemented by the Cooperating IA;
- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HCFC consumption targets had been met;
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (j) Coordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (k) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of the Lead IA and each Cooperating IA;
- (l) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (m) Providing assistance with policy, management and technical support when required;
- (n) Reaching consensus with the Cooperating IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan; and
- (o) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCIES

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the Plan, including at least the following:

- (a) Providing assistance for policy development when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a coordinated sequence in the activities;
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A; and
- (d) Reaching consensus with the Lead IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.