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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 PROPOSALS: QATAR

This document consists of the comments and recommendations of the Secretariat on the following project proposals:

Phase-out

- HCFC phase-out management plan (stage I, final progress report) UNIDO and UNEP
- 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.

HCFC phase-out management plan (stage I, final progress report) (UNIDO and UNEP)**PROJECT DESCRIPTION****Background**

1. Stage I of the HPMP for Qatar was originally approved at the 65th meeting² and revised at the 82nd meeting³ to meet the 20 per cent reduction from the baseline by 2015, at a total cost of US \$1,150,907, plus agency support costs to phase out 57.86 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector and extruded polystyrene (XPS) foam manufacturing sector. Conversion of the XPS manufacturing sector has been completed, while completion of stage I of the HPMP was extended, on an exceptional basis, to 30 June 2020 (decision 84/36(b)).

2. On behalf of the Government of Qatar, UNIDO as the lead implementing agency, has submitted the final progress report on the implementation of the work programme associated with the first and final tranche of the stage I of the HPMP, in line with decision 84/36(c). The submission includes the 2017-2019 verification report, in line with decision 82/34(c)(ii).⁴

HCFC consumption

3. The Government of Qatar reported a consumption of 69.52 ODP tonnes of HCFC in 2019, which is 20 per cent below the HCFC baseline for compliance and in line with target specified under stage I of the HPMP. The 2015-2019 HCFC consumption is shown in Table 1.

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

HCFC	2015	2016	2017	2018	2019	Baseline
Metric tonnes (mt)						
HCFC-22	1,096.01	1,066.10	1,084.66	1,179.62	1,263.81	1,335.50
HCFC-123	1.36	15.52	0.00	10.88	0.55	16.4
HCFC-141b	21.97	37.37	59.45	5.44	0.00	5.24
HCFC-142b	48.77	36.00	36.00	48.00	0.00	195.9
Total (mt)	1,168.11	1,154.99	1,180.11	1,243.94	1,264.36	1,553.04
HCFC-141b in imported pre-blended polyols*	0.00	0.00	0.00	0.00	380.00	0.00**
ODP tonnes						
HCFC-22	60.28	58.64	59.66	64.88	69.51	73.45
HCFC-123	0.03	0.31	0.00	0.22	0.01	0.33
HCFC-141b	2.42	4.11	6.54	0.60	0.00	0.58
HCFC-142b	3.17	2.34	2.34	3.12	0.00	12.73
Total (ODP tonnes)	65.89	65.40	68.54	68.82	69.52	86.9
HCFC-141b in imported pre-blended polyols*	0.00	0.00	0.00	0.00	41.80	0.00**

* Country programme (CP) data.

** Average consumption between 2007 and 2009.

4. Consumption of HCFC-22 for servicing has increased substantially, with consumption to service domestic air conditioning (AC) units more than doubling between 2010 and 2019; this growth in consumption is attributed to increased leakage of the equipment and limited training and certification of technicians. Consumption of HCFC-142b was phased out in 2018 with the completion of the conversion of

² UNEP/OzL.Pro/ExCom/65/46 and Annex XXXI of document UNEP/OzL.Pro/ExCom/65/60 and Corr.1.

³ Annex VIII of document UNEP/OzL.Pro/ExCom/82/72.

⁴ Due to travel restrictions given the COVID-19 pandemic, the verification was undertaken virtually.

the XPS foam manufacturing sector. While 7.4 ODP tonnes of HCFC-22 were phased out through the conversion of the XPS foam manufacturing sector, that reduction in consumption was more than offset by increased consumption of HCFC-22 in the servicing sector. HCFC-123 is used intermittently to service chillers. While bulk HCFC-141b, which had been used as a flushing agent, has been phased out, HCFC-141b contained in imported pre-blended polyols was consumed in 2019 for spray foam at large housing projects and at industrial facilities.

CP implementation report

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

Verification report

6. In line with decision 82/34(c)(ii),⁵ UNIDO submitted the 2017-2019 verification report that 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 2018 and 2019 was correct (as shown in Table 1 above); however, the independent consultant was unable to verify the 2017 consumption given a lack of data.

7. While the verification concluded that Qatar was in compliance with the Montreal Protocol requirements and that the country's consumption in 2017-2019 was below the targets specified in its Agreement with the Executive Committee, it also included the following recommendations: import data should be computerised and maintained for all the staff of the national ozone unit (NOU) to check and refer to; a running Excel sheet, along the lines of the 2018 and 2019 data tables in the verification report, should be maintained, and all changes in data incorporated on a regular basis; and since importers/exporters are required to report to the NOU by shipment quarterly by the month following the quarter, and annually by January of the following year, and when required by NOU as per the agreed format, those reports should be scrutinized and checked with the running Excel sheet.

Progress report on the implementation of the first tranche of the HPMP

Legal framework

8. The Government is implementing a licensing and quota system for HCFC imports and exports. Licenses for the import of HCFC-142b are no longer issued, and the Government banned the import of (bulk) HCFC-141b on 1 January 2020. In line with Gulf Cooperation Council (GCC) regulations, the venting of refrigerants during installation, servicing and decommissioning of equipment is banned, and imports of CFCs and CFC-based equipment are banned. Sanctions range from a fine of US \$13,700 to imprisonment of up to one year plus a fine of up to US \$137,000, depending on the infraction; to date there have been no cases where such penalties have been applied.

9. A draft ban on the import of all HCFC-based equipment was submitted to the Ministry Cabinet and is expected to be finalized and in force by 1 January 2022. In addition, the Government implemented an energy efficiency standard applied to RAC equipment (in line with other GCC countries); given that small capacity HCFC-22-based AC equipment (i.e., 2 tonnes of refrigeration and less) will not meet that standard, import of such equipment has effectively been banned. In addition, the only manufacturer of HCFC-123-based chillers has stopped manufacturing that equipment; therefore, no new HCFC-123-based

⁵ In extending the date of completion of stage I of the HPMP for Qatar to 1 July 2019, the Committee noted the Government of Qatar could submit the project proposal for stage II of the HPMP at the 83rd meeting, on the understanding that it would include the verification of the country's consumption for the years 2017 to 2018.

chillers are expected to be imported into the country.

10. The country is implementing activities to enable the country's ratification of the Kigali Amendment; a timeline for ratification is not available.

XPS foam manufacturing sector

11. Of three XPS foam manufacturing enterprises, one, Al Kawthar Factory relocated to Oman; while the conversion at Qatar Insulation Factory (QIF) and at the Orient Insulation Factory (OIF) has been completed and phased out 19.45 ODP tonnes. Both converted to CO₂ system with dimethyl ether as organic solvent and HFC-152a. Incremental operating costs (IOCs) for OIF of US \$23,333 will be disbursed by 31 December 2020, and savings associated with the relocation of the enterprise Al Kawthar Factory of US \$26,160, plus agency support costs of US \$1,962, were returned by UNIDO to the 83rd meeting.

Refrigeration servicing sector

12. The following activities were undertaken:

- (a) Development of an e-licensing system was initiated. The system will be further developed under stage II, including to address HFCs;
- (b) In February 2020 a stakeholder meeting was organized for 29 participants from RAC enterprises, ODS importers and Government representatives on new HCFC measures, including import controls, legal and economic incentives and penalties, training, public-awareness activities, and other sector-specific initiatives;
- (c) Two training programmes in April and September 2020 for 15 master RAC trainers to assess and certify the skills needed on good servicing practice, refrigerant recovery, reuse and reclamation; refrigerant circuit pipes joining and installation methods; leak detection and tightness test; brazing examination; and safe use of alternative refrigerants;
- (d) An agreement was signed with Qatar University to carry out the national training programme on good practices for 200 technicians under the national certification programme so that capacity building for the RAC servicing sector can be performed; the training is planned for September-October 2020;
- (e) During April-July 2020, 200 customs and enforcement officers were trained on enforcement of licensing system, monitoring HCFC import and data reporting to the NOU, and measures to control illegal trade of HCFCs;
- (f) Four awareness-raising workshops and meetings were held, including a meeting in January 2019 to raise awareness about the quota system for 10 participants; a meeting in March 2020 with 19 participants from industry, technicians and related authorities to discuss implementation of the certification scheme; and two meetings in March and May 2020 with UNEP, the NOU, the Association of Italian Refrigeration Technicians (ATF), Qatar University, and the College of North Atlantic representatives to discuss the certification scheme and the RAC training programme; and
- (g) Monitoring through regular missions to the project sites, e-mails and virtual meetings between the NOU and UNEP, including one follow-up visit by the NOU to QIF to ensure the continued use of environmentally friendly alternatives in their XPS foam production line.

13. While activities resumed after the reestablishment of the NOU,⁶ the completion of all the proposed training programmes for technicians could not be achieved due to the constraints imposed by the COVID-19 pandemic. Accordingly, the country was requesting a further extension of the HPMP to 31 December 2020 to allow for the implementation of 10 workshops to train 200 technicians on good servicing practices, including refrigerant containment, recovery and recycling (R&R), brazing, and safe handling of flammable refrigerants, on October and November 2020.

Level of fund disbursement

14. As of August 2020, of the US \$1,124,747 so far approved (US \$1,019,747 for UNIDO⁷ and US \$105,000 for UNEP), US \$1,052,289 (94 per cent) had been disbursed (US \$983,334 (96 per cent) by UNIDO⁸ and US \$68,955 (66 per cent) by UNEP⁹).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Legal framework

15. The Government of Qatar has issued HCFC import quotas for 2020 at 56.49 ODP tonnes in accordance with the Montreal Protocol control targets.

Verification report

16. The verification of the 2017 consumption was not possible given the changes in staff at the NOU and a lack of document management, which made it impossible to locate customs data for that and prior years. The Government confirmed that it has already implemented the recommendations contained in the verification report and would continue to do so during implementation of stage II of the HPMP.

17. In 2011 and 2019, Qatar reported a consumption of HCFC-141b contained in imported pre-blended polyol of 58.8 mt and 380 mt, respectively; no such consumption was reported in the intervening years. As such consumption was not reported between 2007 and 2009, it is not eligible for funding under the Multilateral Fund. The verification report concluded that the 380 mt used in 2019 were imported in previous (unspecified) years. A lack of customs data precludes correcting prior year CP data reports to reflect the import of HCFC-141b contained in pre-blended polyol that may have taken place during that year. The NOU confirmed that all HCFC-141b contained in pre-blended polyol in the country was used in 2019 and that there were no further stockpiles of the substance, which was used exclusively in spray foam for insulation in construction projects. Noting the difficulties experienced by the country in accurately reflecting the import of HCFC-141b contained in pre-blended polyols, it was agreed that during

⁶ At the 84th meeting, the Secretariat was informed of a change in the NOU (paragraph 139 of document UNEP/OzL.Pro/ExCom/84/22); accordingly, implementation of activities in the country had been delayed, and the Executive Committee *inter alia* decided, on an exceptional basis, to extend the stage I of the HPMP to 30 June 2020 (decision 84/36(b)). The NOU has since been re-established.

⁷ In line with decision 82/34(d), UNIDO returned to the 83rd meeting US \$26,160 as Al Kawthar factory relocated to Oman, reducing UNIDO's amount approved from US \$1,045,907 to US \$1,019,747.

⁸ At the 82nd meeting, UNIDO reported that it had disbursed US \$1,150,907 as of October 2018. Due to an inadvertent error, that reporting did not factor in US \$170,000 in balances transferred from the terminal phase-out management plan.

⁹ At the 82nd meeting, UNEP reported that it had disbursed US \$69,300 as of October 2018. That reported disbursement was in error.

implementation of stage II of the HPMP, UNEP would work with the Government of Qatar to strengthen the country's mechanisms to monitor and report controlled substances contained in pre-blended polyols.

Implementation of the first tranche of the HPMP

18. There has been a rapid increase in consumption of HCFC-22 in the servicing sector: during 2010-2019, consumption of HCFC-22 to service domestic AC units was more than doubled, while consumption of HCFC-22 to service commercial AC equipment increased by about 55 per cent. Accordingly, the Secretariat considered it critical to implement the outstanding training activities in the servicing sector (planned for October and November 2020), although stage I was to be completed by 30 June 2020. The training and certification of technicians will contribute to the establishment of a trained workforce that understands and implements good refrigeration servicing practices, thereby reducing consumption. On this basis, the Secretariat recommended, on an exceptional basis, that stage I of the HPMP be extended to December 2020, on the understanding that the project would be financially completed by 1 March 2021 and that the remaining balances of US \$36,045 for the servicing sector would be offset from stage II by deducting an additional 0.41 ODP tonnes of HCFC-22 from the country's remaining HCFC consumption eligible for funding.

Funding balance

19. UNIDO confirmed that by November 2020 the agreed IOCs of US \$23,333 would be disbursed to OIF that had successfully converted in 2015. UNEP confirmed that the remaining balance of US \$36,045 was committed under a contract with the local partner and would be disbursed by 31 December 2020.

RECOMMENDATION

20. The Executive Committee may wish:

- (a) To note the final progress report on the implementation of the work programme associated with the first and final tranche of the stage I of the HCFC phase-out management plan (HPMP) for Qatar submitted by UNIDO, contained in document UNEP/OzL.Pro/ExCom/86/70; and
- (b) To approve, on an exceptional basis, the extension of the completion date of stage I of the HPMP for Qatar from 30 June 2020 to 31 December 2020, on the understanding that the project would be financially completed by 1 March 2021 and that an additional 0.41 ODP tonnes of HCFC-22 would be deducted from the country's remaining HCFC consumption eligible for funding under stage II of the HPMP.

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Qatar

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

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2019	69.52 (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
				Manu.	Servicing				
HCFC-22					69.51				69.51
HCFC-123			0.01						0.01
HCFC-141b in imported pre-blended polyols		41.80							41.80

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	86.90	Starting point for sustained aggregate reductions:	86.08
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	57.86	Remaining:	28.22

(V) BUSINESS PLAN		2020	2021	2022	Total
UNIDO	ODS phase-out (ODP tonnes)	3.00	0	1.92	4.92
	Funding (US \$)	143,178	0	109,933	253,111
UNEP	ODS phase-out (ODP tonnes)	2.00	0	2.00	4.00
	Funding (US \$)	76,123	0	100,805	176,928

(VI) PROJECT DATA			2020	2021-2022	2023	2024	2025	Total
Montreal Protocol consumption limits			56.49	56.49	56.49	56.49	28.24	n/a
Maximum allowable consumption (ODP tonnes)			56.49	56.49	56.49	56.49	28.24	n/a
Projects costs requested in principle (US \$)	UNIDO	Project costs	205,000	0	100,000	0	60,000	365,000
		Support costs	14,350	0	7,000	0	4,200	25,550
	UNEP	Project costs	139,500	0	144,500	0	69,000	353,000
		Support costs	18,135	0	18,785	0	8,970	45,890
Total project costs requested in principle (US \$)			344,500	0	244,500	0	129,000	718,000
Total support costs requested in principle (US \$)			32,485	0	25,785	0	13,170	71,440
Total funds requested in principle (US \$)			376,985	0	270,285	0	142,170	789,440

(VII) Request for approval of funding for the first tranche (2020)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNIDO	205,000	14,350
UNEP	139,500	18,135
Total	344,500	32,485

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

Background

21. On behalf of the Government of Qatar, UNIDO as the lead implementing agency, has submitted a request for stage II of the HPMP, at a total cost of US \$789,440, consisting of US \$365,000, plus agency support costs of US \$25,500 for UNIDO, and US \$353,000, plus agency support costs of US \$45,890 for UNEP, as originally submitted.¹⁰ The implementation of stage II of the HPMP will phase out 8.81 ODP tonnes of HCFCs and assist Qatar in meeting the target of 67.5 per cent reduction in HCFC baseline consumption by 2025.

22. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$376,985, consisting of US \$205,000, plus agency support costs of US \$14,350 for UNIDO, and US \$189,500, plus agency support costs of US \$18,135 for UNEP, as originally submitted.

Status of implementation of stage I of the HPMP

23. Stage I of the HPMP for Qatar was originally approved at the 65th meeting¹¹ and revised at the 82nd meeting¹² to meet the 20 per cent reduction from the baseline by 2015, at a total cost of US \$1,150,907, plus agency support costs to phase out 57.86 ODP tonnes of HCFCs used in the RAC servicing sector and XPS foam manufacturing sector. Conversion of the XPS manufacturing sector has been completed, while completion of stage I of the HPMP was extended, on an exceptional basis, to 30 June 2020 (decision 84/36(b)). The final progress report for stage I, including an analysis of the HCFC consumption, the progress and financial reports on the implementation, and a request for a further extension, is contained in paragraphs 1 to 19 of the present document.

HCFC consumption

24. The Government of Qatar reported a consumption of 69.52 ODP tonnes of HCFC in 2019, which is 20 per cent below the HCFC baseline for compliance and in line with target specified under stage I of the HPMP.

Stage II of the HPMP

Remaining consumption eligible for funding

25. After deducting 57.86 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding amounts to 28.22 ODP tonnes of HCFC-22 and HCFC-141b; of this amount, 8.23 ODP tonnes of HCFC-22 will be phased out in stage II; an additional 0.58 ODP tonnes of HCFC-141b will be deducted from the remaining consumption eligible for funding given the 1 January 2020 ban on HCFC-141b;¹³ and an additional 0.41 ODP tonnes of HCFC-22 would be deducted from the country's remaining consumption eligible for funding as noted in paragraph 20(b) of the present document. The remaining consumption of 19.00 ODP tonnes eligible for funding will be addressed in a future stage of the HPMP.

¹⁰ As per the letter of 12 July 2020 from the Ministry of Municipality and Environment of Qatar to UNIDO and UNEP.

¹¹ Annex XXXI of document UNEP/OzL.Pro/ExCom/65/60 and Corr.1.

¹² Annex VIII of document UNEP/OzL.Pro/ExCom/82/72.

¹³ Paragraph 8 of the present document.

Sector distribution of HCFCs

26. There are approximately 3,000 technicians at 638 registered workshops servicing domestic AC units, commercial cold stores, chillers, and transportation refrigeration as shown in Table 2.

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

Applications	Number of equipment	Average charge (kg)	Leakage rate (%)	Consumption (mt)		
				Servicing need	On site charging	Total
Domestic AC	1,171,253	3.295	22.00	849.20		849.20
Commercial, industrial AC and chillers	10,871	74.210	23.00	185.55	206.64	392.19
Transport refrigeration	2,402	6.770	10.00	1.62		1.62
Large commercial refrigeration	1,181	73.750	10.00	8.71	7.32	16.03
Industrial refrigeration	1,413	26.844	9.95	3.77	1.00	4.77
Total	1,187,120			1,048.95	214.96	1,263.81

27. HCFC-22 represents virtually all¹⁴ of the HCFC refrigerants used in the servicing sector; in 2019, the consumption of HCFC-22 was approximately equal to the combined consumption of HFC-134a, R404A, R-407C, and R-410A.

Phase-out strategy in stage II of the HPMP

28. Stage II of the HPMP will focus on strengthening the HCFC licensing and quota system, promoting the transition to low global-warming potential (GWP) technologies in the RAC sector, implementing legal instruments related to the safe use of low-GWP technologies, strengthening the capacity of the servicing sector, and establishing a certification scheme for technicians. The lessons learned and infrastructure established during the implementation of stage I of the HPMP will be used in stage II.

Proposed activities in stage II of the HPMP

29. Stage II proposes the following activities:

- (a) Policy and enforcement capacity-building, including a possible ban on HCFC-based equipment and updating policies, regulations and safety standards on alternative refrigerants, including flammable refrigerants, and information dissemination to stakeholders on those updates; development and implementation of an e-licensing system; and a training workshop for 20 enforcement officers on HCFC policies (UNEP) (US \$65,000);
- (b) Continued implementation of the licensing and quota system through regular maintenance and operation of the e-licensing system, review ODS policies and regulations with the aim to ensure the sustainability of the phase-out and identify possible incentives for low-GWP alternatives, development of legislation and management for R&R centres, and enhance control of ODS entering the country for transit under the Free Trade Agreement (UNEP) (US \$25,000);
- (c) Customs training, including organization of two trainings for 40 customs officers on matters related to the Montreal Protocol and HCFC control, including risk profiling, and organization of two regional/cross-border enforcement cooperation meetings (UNEP) (US \$20,000); and procurement of five advanced refrigerant identifiers for training centres

¹⁴ HCFC-123 accounted for 0.04 per cent of the HCFCs used to service RAC equipment, with HCFC-22 accounting for the remaining 99.96 per cent.

and customs checkpoints (UNIDO) (US \$20,000);

- (d) Technician training and certification, including updating the training curriculum to address safe practices for handling of low-GWP alternatives; one workshop for 20 trainers; ten workshops with 20 technicians each on RAC good servicing practices, including the safe handling of low-GWP alternatives; implementation of a pilot certification programme, including awareness-raising on the programme through the RAC associations, which will be strengthened (UNEP) (US \$188,000);
- (e) Awareness-raising activities to promote low-GWP alternative technologies, and development of standards and codes, including on labelling, record-keeping, reporting requirements, and installation standards for low-GWP refrigerants, and operating procedures for service workshops handling low-GWP refrigerants (UNEP) (US \$55,000);
- (f) Establishment of a reclamation centre, including a financial and technical assessment, development of a business model, and procurement of equipment (including reclaim unit, four 1,000 lbs storage tanks, transfer pump, scale, 25 100 lbs recovery tanks, 25 30 lbs recovery tanks, advanced refrigerant identifier, gas chromatograph and moisture tester, and 10 recovery units and cylinders); technical assistance to owners of HCFC-123 chillers to reduce leaks and transition to low-GWP alternatives, and procurement of three sets of equipment (including manifold gauges, portable leak detectors for hydrocarbons, ammonia and carbon dioxide, refrigerant weight scales, vacuum pump, recovery sets for hydrocarbons, recovery sets for other refrigerants, recycling cylinders, and tools) for training centres (UNIDO) (US \$275,000); and
- (g) Independent verification of consumption for each future tranche (UNIDO) (US \$20,000).

Project implementation and monitoring (PMU)

30. The PMU, which is under the supervision of the NOU, is responsible for the day-to-day implementation of training programmes, technical assistance and awareness-raising activities; coordinating stakeholders, industrial associations, research institutes, standard bureaus, training institutes, and the statistics bureau for the implementation of HPMP activities; supporting the NOU in collecting and analyzing consumption data pertaining to HCFCs associated with HPMP, and supporting the independent verification process. The cost of those activities amounts to US \$50,000, allocated to consultants (US \$44,800), travel (US \$2,600) and meetings and workshops (US \$2,600).

Gender policy implementation

31. In line with decision 84/92(d),¹⁵ as well as UNEP's and UNIDO's gender mainstreaming policies, stage II will address gender equality and women's empowerment, including by seeking stakeholders' inputs on how to integrate gender specific indicators in planning, implementation, and reporting, and by supporting gender-balanced participation in training, capacity-building, and other activities where possible. Trainings and meetings will incorporate sessions on gender to further sensitize participants on the importance of gender mainstreaming and women's empowerment. The agencies will work closely with the Government to encourage participation of women in training programmes, to track the number of women customs officers, enforcement officers and technicians that participate in training courses, and report on experiences and challenges faced, including best practices found while integrating gender issues into national plans.

¹⁵ Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

Total cost of stage II of the HPMP

32. The total cost of stage II of the HPMP for Qatar amounts to US \$718,000 (plus agency support costs), as originally submitted for achieving 67.5 per cent reduction from its HCFC baseline consumption by 2025. The proposed activities and cost breakdown are summarized in Table 3.

Table 3. Total cost of stage II of the HPMP for Qatar as submitted

Activity	Agency	Cost (US \$)
Policy and enforcement capacity-building, including implementation of e-licensing system	UNEP	65,000
Assist with operation of quota system, update ODS policy and regulations, development of legislation and management for R&R centres, and enhance control of ODS entering the country	UNEP	25,000
Organization of two trainings for 40 customs officers and organization of two regional/cross-border enforcement cooperation meetings	UNEP	20,000
Procurement of five advanced identifiers for training centres and customs checkpoints	UNIDO	20,000
Technician training, including one refresher training for 20 trainers and 10 workshops with 20 technicians each on RAC good servicing practices, implementation of a pilot certification programme, and support to RAC associations	UNEP	188,000
Awareness-raising activities to promote low-GWP alternative technologies	UNEP	20,000
Technical assistance in development of standards for products and services	UNEP	35,000
Establishment of a reclamation centre, including development of a business model and procurement of equipment, support owners of HCFC-123 chillers, and procurement of three sets of equipment for training centres	UNIDO	275,000
Verification of data (two reports)	UNIDO	20,000
Monitoring and reporting	UNIDO	50,000
Total		718,000

Activities planned for the first tranche of stage II

33. The first funding tranche of stage II of the HPMP, at the total amount of US \$344,500, will be implemented between January 2021 and December 2022 and will include the following activities:

- (a) Updating policies, regulations and safety standards on alternative refrigerants, including flammable refrigerants, and information dissemination to stakeholders on those updates; development of an e-licensing system; and providing training for importers and local authorities on its use (UNEP) (US \$35,000);
- (b) Updating ODS policy and regulations, development of legal framework for managing ODS R&R centres, enhancing ODS control under the Free Trade Agreement (UNEP) (US \$9,000);
- (c) Training for 20 customs officers on matters related to the Montreal Protocol and HCFC control; organization of a regional/cross-border enforcement cooperation meeting (UNEP) (US \$10,000); and procurement of four refrigerant identifiers for training centres and key ports/check points (UNIDO) (US \$20,000);
- (d) Updating the training curriculum to address safe practices for handling of low-GWP alternatives; one workshop for 20 trainers and two workshops with 40 technicians on good servicing practices, including the safe handling of low-GWP alternatives; implementation of a pilot certification programme, including awareness-raising on the programme through the RAC associations (UNEP) (US \$73,000);

- (e) Dissemination of information on emerging low-GWP technologies with a focus on RAC manufacturing and servicing in collaboration with RAC associations, and review of national standards and codes that relate to the ODS sector and introduction/promotion of the internationally applicable standards (UNEP) (US \$12,500);
- (f) Preparations for the implementation of a reclamation centre, including development of a business model and procurement of equipment for one high-capacity reclamation centre, and technical assistance to assist HCFC-123 chiller owners to transition to non-ODS and low-GWP alternatives (UNIDO) (US \$165,000); and
- (g) Project management and monitoring, including consultants (US \$17,400), travel (US \$1,300), and meetings and workshops (US \$1,300) (UNIDO).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

34. The Secretariat reviewed stage II of the HPMP 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.

Phase-out of HCFC-141b contained in imported pre-blended polyols

35. Noting the difficulties experienced in reporting the import of HCFC-141b contained in pre-blended polyols, stage II had included activities to strengthen the mechanisms to monitor and report controlled substances contained in pre-blended polyols. A report on the implementation of these activities will be included in the progress report to be submitted with the second tranche of stage II.

36. Although funding for the phase-out of HCFC-141b contained in imported pre-blended polyols is not eligible, as it was not imported during the 2007-2009 period, during the review process the Secretariat suggested to prioritize the phase-out of this consumption, which is used exclusively in spray foam for insulation in construction projects. The Secretariat also noted that the demonstration project for the phase-out of HCFCs by using HFO as a foam blowing agent in spray foam applications in high ambient temperatures,¹⁶ reported that spray foam formulation with HFO-1233zd(E) appears to be a potential alternative to replace both HCFC and HFC formulations. Subsequently, UNIDO indicated that the Government of Qatar agreed to ban the import of HCFC-141b contained in pre-blended polyols by 1 January 2024, once the foam enterprises convert to low-GWP alternatives with their own resources.

Regulations to support HCFC phase-out

37. Given the increase in consumption of HCFC-22 in the servicing sector, the Secretariat had detailed discussions with UNIDO and UNEP on actions that could be implemented to effectively address that growth in consumption. Further to consultations, the Government of Qatar committed to implement by 1 January 2023 the following actions and until all of them are in place, the second funding tranche could only be requested:

- (a) A ban on disposable refrigerant cylinders;

¹⁶ UNEP/OzL.Pro/ExCom/85/9.

- (b) A mandatory certification scheme for RAC technicians whose development was initiated in stage I;
- (c) Mandatory training on good servicing practices for all RAC technicians, including record-keeping practices (e.g., HCFC logbooks and HCFC equipment log books for systems above certain charge) and pre-determined schedules for leakage check by certified personnel for systems with charges above a certain limit; and
- (d) An e-licensing system, whose development was initiated under stage I.

38. In addition, UNEP clarified that the following changes would be implemented regarding HCFCs entering Qatar for transit under Free Trade Agreement:

- (a) Requiring a permit for each HCFC shipment, including shipments in transit;
- (b) Requiring proof of origin for each HCFC shipment, and that document would accompany each physical shipment so the customs officer can examine it as part of clearance procedure; and
- (c) Consider specifying the batch number(s), date(s) of production and substantial properties, e.g., purity.

Technical and cost-related issues

39. While it is expected that the restrictions associated with the COVID-19 pandemic will be lifted by the time the project implementation starts in 2021, UNIDO confirmed that the necessary arrangements will be taken to allow continued implementation of all the proposed activities under their respective timelines, if restrictions remain. UNIDO has strengthened virtual communication and training tools for capacity building, and improved procurement modalities are being prepared.

40. Noting that the technicians that would be trained under stage I and those planned under stage II would account for approximately only 13 per cent of the technicians in the country, it was agreed that an additional 100 technicians would be trained and certified under stage II.

41. The Secretariat sought further information on the planned reclamation centre, particularly in relation to the lack of regulations to prohibit intentional emissions of controlled substances; the low price of virgin HCFC-22 in the local market; the lack of an economic model for a self-sustained operation; and logistical matters (e.g., weight of equipment, distance and small refrigerant charges to be recovered). UNIDO explained that Qatar has already banned the venting of refrigerants during installation, servicing and decommissioning of equipment, and penalties may be imposed for contraventions to that regulation. Stage II of the HPMP includes measures that will enable reclamation of refrigerants, including the training and certification of technicians, implementation of mandatory good servicing practices (including record-keeping and pre-determined schedules for leakage check by certified personnel); and development of the legal framework for managing R&R centres. The current retail price of HCFC-22 is US \$6.80/kg; while measures to increase that price may further enable reclamation, such measures must also carefully consider other effects (e.g., equity). Moreover, the comprehensive technical and financial assessment has yet to be conducted, and a proper business model will be part of the evaluation criteria in selecting the host for the reclamation centre. It is expected that the centre would reclaim approximately 50 mt of HCFC-22 per year once it was operational. It was agreed that UNIDO will include a comprehensive report on the status of the reclamation centre, including quantities of refrigerant reclaimed, if any, as part of the second tranche request.

Total project cost

42. The total cost for stage II of the HPMP amounts to US \$718,000, based on the phase-out of 8.23 ODP tonnes (149.58 mt) of HCFC-22 in the servicing sector calculated at US \$4.80/metric kg, in line with 74/50(c)(xiii), to assist Qatar in meeting the target of 67.5 per cent reduction in HCFC baseline consumption by 2025. An additional 0.41 ODP tonnes of HCFC-22 and 0.58 tonnes of HCFC-141b will be deducted from the remaining consumption eligible for funding without funding from the Multilateral Fund. The total funding and funding for the first tranche were agreed as submitted.

Impact on the climate

43. 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. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Qatar, including its efforts to promote low-GWP alternatives, as well as refrigerant recovery, reuse, and reclamation indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

2020-2022 draft business plan of the Multilateral Fund

44. UNIDO and UNEP are requesting US \$718,000, plus agency support costs, for the implementation of stage II of the HPMP for Qatar. The total requested value of US \$376,985, including agency support costs for the period of 2020–2022, is US \$53,055 below the amount in the business plan.

Draft Agreement

45. A draft Agreement between the Government of Qatar 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

46. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Qatar for the period from 2020 to 2025 to reduce HCFC consumption by 67.5 per cent of the country's baseline, in the amount of US \$789,440, consisting of US \$365,000, plus agency support costs of US \$25,500 for UNIDO, and US \$353,000, plus agency support costs of US \$45,890 for UNEP;
- (b) Deducting 8.81 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (c) Deducting an additional 0.41 ODP tonnes of HCFC-22 from the remaining HCFC consumption eligible for funding given the extension of stage I, in line with decision [86/...];
- (d) Noting the commitment by the Government to implement by 1 January 2023 the following:
 - (i) A ban on disposable refrigerant cylinders;
 - (ii) A mandatory certification scheme for refrigeration and air-conditioning (RAC) technicians;

- (iii) Mandatory good servicing practices of RAC technicians, including record-keeping practices (e.g., HCFC logbooks and HCFC equipment log books for systems above certain charge) and pre-determined schedules for leakage check by certified personnel for systems with charges above a certain limit; and
- (iv) An e-licensing system;
- (e) Allowing the submission of the second tranche of the HPMP once the commitments identified in sub-paragraph (d) above had been implemented;
- (f) Noting the country's commitment to ban the import and use of HCFC-141b contained in pre-blended polyols by 1 January 2024 by converting to low-global warming potential alternatives, and that the country would not be eligible for further funding from the Multilateral Fund to phase out HFCs contained in pre-blended polyols;
- (g) Approving the draft Agreement between the Government of Qatar 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
- (h) Approving the first tranche of stage II of the HPMP for Qatar, and the corresponding tranche implementation plans, in the amount of US \$376,985, consisting of US \$205,000, plus agency support costs of US \$14,350 for UNIDO, and US \$139,500, plus agency support costs of US \$18,135 for UNEP.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF QATAR 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 Qatar (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 28.24 ODP tonnes by 1 January 2025 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 and 4.3.3. (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) The Country commits to examining the possibility of using pre-blended systems with low-global-warming potential blowing agents instead of blending them in-house, for those foam enterprises covered under the Plan, should this be technically viable, economically feasible and acceptable to the enterprises;
- (d) The Country agrees, in cases where HFC technologies have been chosen as an alternative to HCFCs, and taking into account national circumstances related to health and safety: to monitor the availability of substitutes and alternatives that further minimize impacts on the climate; to consider, in the review of regulations standards and incentives adequate provisions that encourage introduction of such alternatives; and to consider the potential for adoption of cost-effective alternatives that minimize the climate impact in the implementation of the HPMP, as appropriate, and inform the Executive Committee on the progress accordingly in tranche implementation reports; and
- (e) 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 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/or Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per subparagraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall co-ordination 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, 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	73.45
HCFC-141b	C	I	0.58
HCFC-142b	C	I	12.05
Total	C	I	86.08

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2020	2021-2022	2023	2024	2025	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	56.49	56.49	56.49	56.49	28.24	n/a
1.2	Maximum allowable total consumption Annex C, Group I substances (ODP tonnes)	56.49	56.49	56.49	56.49	28.24	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	205,000	0	100,000	0	60,000	365,000
2.2	Support costs for Lead IA (US \$)	14,350	0	7,000	0	4,200	25,550
2.3	Cooperating IA (UNEP) agreed funding (US \$)	139,500	0	144,500	0	69,000	353,000
2.4	Support costs for Cooperating IA (US \$)	18,135	0	18,785	0	8,970	45,890
3.1	Total agreed funding (US \$)	344,500	0	244,500	0	129,000	718,000
3.2	Total support costs (US \$)	32,485	0	25,785	0	13,170	71,440
3.3	Total agreed costs (US \$)	376,985	0	270,285	0	142,170	789,440
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)						8.64
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)						45.81
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)						19.00
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)						0.58
4.2.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)						0.00
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)						0.00
4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)						0.00
4.3.2	Phase-out of HCFC-142b to be achieved in the previous stage (ODP tonnes)						12.05
4.3.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)						0.00

* Date of completion of stage I as per stage I Agreement: 1 July 2019 and further extended, on an exceptional basis, to 31 December 2020 as per decision [86/...].

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the first 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 national ozone unit (NOU) is the central administrative unit established within the administrative structure of Ministry of Environment, responsible for the co-ordination of governmental activities with respect to the ozone layer protection and facilitation of ODS phase-out.
2. The NOU will be responsible for the overall co-ordination of national activities towards the HPMP implementation.
3. The management of the implementation of the planned project activities will be allocated to the NOU in cooperation with the Lead IA.
4. An independent and certified auditor will audit and verify the consumption of ODS reported by the Government through Article 7 and country programme reports.

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) Co-ordinating 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, co-ordination 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 co-ordinated 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, co-ordination 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 \$156 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.