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

PROJECT PROPOSAL: QATAR

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

Phase-out

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

¹ UNEP/OzL.Pro/ExCom/93/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Qatar

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNIDO (lead), UNEP	88 th	67.5% phase-out by 2025

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2022	56.44 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2022	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					56.37				56.37
HCFC-123					0.07				0.07

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	86.90	Starting point for sustained aggregate reductions:	86.08
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	71.67	Remaining:	14.41

(V) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNIDO	ODS phase-out (ODP tonnes)	1.98	0.00	1.19	3.17
	Funding (US \$)	107,000	0	64,200	171,200
UNEP	ODS phase-out (ODP tonnes)	2.86	0.00	1.37	4.23
	Funding (US \$)	163,285	0	77,970	241,255

(VI) PROJECT DATA		2021	2022	2023	2024	2025	2026	Total	
Montreal Protocol consumption limits (ODP tonnes)		56.49	56.49	56.49	56.49	28.24	56.49	n/a	
Maximum allowable consumption (ODP tonnes)		56.49	56.49	56.49	40.00	28.24	56.49	n/a	
Funding agreed in principle (US \$)	UNIDO	Project costs	205,000	0	100,000	0	60,000	0	365,000
		Support costs	14,350	0	7,000	0	4,200	0	25,550
	UNEP	Project costs	139,500	0	144,500	0	69,000	0	353,000
		Support costs	18,135	0	18,785	0	8,970	0	45,890
Funds approved by ExCom (US \$)	Project costs	344,500						344,500	
	Support costs	32,485						32,485	
Total funds recommended for approval at this meeting (US \$)	Project costs			244,500*				244,500	
	Support costs			25,785*				25,785	

* On the understanding that the Treasurer be requested to transfer the approved funds to UNEP only after the Secretariat had confirmed that the country had implemented the commitments listed in decision 88/54(e)(i), (ii), and (iii).

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Qatar, UNIDO as the lead implementing agency has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$270,285, consisting of US \$100,000, plus agency support costs of US \$7,000, for UNIDO and US \$144,500, plus agency support costs of US \$18,785, for UNEP.² The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2020 to 2022, and the tranche implementation plan for 2024 to 2025.

Report on HCFC consumption

2. The Government of Qatar reported a consumption of 56.44 ODP tonnes of HCFCs in 2022, which is 35 per cent below the HCFC baseline for compliance. The 2018-2022 HCFC consumption is shown in table 1.

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

HCFC	2018	2019	2020	2021	2022	Baseline
Metric tonnes (mt)						
HCFC-22	1,179.62	1,263.81	1,026.00	1,027.15	1,024.96	1,335.50
HCFC-123	10.88	0.55	0.00	0.00	3.60	16.40
HCFC-141b	5.44	0.00	0.00	0.00	0.00	5.24
HCFC-142b	48.00	0.00	0.00	0.00	0.00	195.90
Total (mt)	1,243.94	1,264.36	1,026.00	1,027.15	1,028.56	1,553.04
HCFC-141b in imported pre-blended polyols*	0.00	380.00**	385.00**	0.00	0.00	0.00***
ODP tonnes						
HCFC-22	64.88	69.51	56.43	56.49	56.37	73.45
HCFC-123	0.22	0.01	0.00	0.00	0.07	0.33
HCFC-141b	0.60	0.00	0.00	0.00	0.00	0.58
HCFC-142b	3.12	0.00	0.00	0.00	0.00	12.73
Total (ODP tonnes)	68.82	69.52	56.43	56.49	56.44	86.90
HCFC-141b in imported pre-blended polyols*	0.00	41.80	42.35	0.00	0.00	0.00***

* Country programme (CP) data.

** Used in the respective year but imported into the country in prior years.

*** Average consumption between 2007 and 2009.

3. Consumption of HCFC-22, which is used exclusively to service refrigeration and air-conditioning (RAC) equipment following the phase-out of the extruded polystyrene manufacturing sector under stage I, decreased in 2020 in line with the quota reduction, and has since remained steady. HCFC-123 is used intermittently to service chillers. Consumption of HCFC-141b pure and contained in pre-blended polyols was phased out in line with the 1 January 2020 ban.

Country programme implementation report

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

Verification report

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

² As per the letter of 29 August 2023 from the Ministry of Environment and Climate Change of Qatar to UNIDO.

inter alia that Qatar was in compliance with the targets defined in the Agreement between the country and Executive Committee; the necessary legislation related to quota allocation and the import permit licensing system was in place; the import permit licensing system was functioning well; and an electronic licensing (e-licensing) system had been established. The verification made several recommendations which are discussed in paragraph 17.

Status of implementation of stage I of the HCFC phase-out management plan

6. Stage I of the HPMP was completed on 31 December 2020, in line with the extension approved by the Executive Committee in decision 86/29(b). The project completion report was submitted on 23 April 2021.

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

Legal framework

7. Policies and regulations on ozone-depleting substances (ODS) were reviewed, with the following progress:

- (a) A decision related to the quota system was gazetted in 2022, allowing the Ministry to make quota adjustments during the year and banning the import of HCFC-based products and equipment;
- (b) The ban on disposable refrigerant cylinders was drafted, expected to take effect by June 2024; and
- (c) A ministerial decision was drafted in accordance with the updated Gulf Cooperation Council (GCC) ODS unified regulations (adopted in 2014), expected to be finalized by June 2024, that will enact a mandatory and enforceable certification scheme and mandatory good servicing practices, such as recovery of refrigerants during servicing of RAC equipment and those listed in decision 88/54(e)(iii).³

8. An e-licensing system was developed to include HCFCs and HFCs, and is now operational, with updates ongoing. The following changes were implemented for HCFCs entering Qatar for transit under the Free Trade Agreement: requiring a permit for each HCFC shipment, including shipments in transit; requiring proof of origin for each HCFC shipment, which accompany each shipment so the customs officer can examine it as part of the clearance procedure; and specifying the batch number(s), date(s) of production and substantial properties in the shipment permit.

9. Two training workshops for 31 enforcement officers (including eight women) were held, covering the e-licensing system and updated regulations and decisions under the Montreal Protocol, and a workshop for 35 Government officials and other stakeholders was organized to disseminate information on ODS control and regulations, including the updated e-licensing system and commitments under the HPMP. The national ozone unit (NOU) participated in four meetings organized by the GCC to revise and manage the Harmonized System (HS) codes for ODS. A training workshop was organized for 40 customs officers on the Montreal Protocol and HCFC control, including risk profiling. Procurement of the five advanced refrigerant identifiers was delayed due to a backlog with the supplier.

³ Mandatory good servicing practices for RAC technicians listed in decision 88/54(e)(iii) include record-keeping practices (e.g., HCFC and HFC equipment logbooks for systems above a certain charge) and pre-determined schedules for leakage checks by certified personnel for systems with charges above a certain limit.

10. The Government expects to ratify the Kigali Amendment in January 2024, with the HFC quota system introduced following ratification.

Refrigeration servicing sector

11. The training curriculum was updated to address safe practices for the handling of low-global-warming-potential (GWP) alternatives; technician training and a refresher training workshop for trainers was delayed and is expected to take place by the end of 2023. Preparations have begun for the pilot certification programme, planned in conjunction with technician training, expected by the end of 2023.

Technical assistance

12. Information on emerging low-GWP technologies, with a focus on RAC manufacturing and servicing, was disseminated through two meetings with a total of 48 participants (including 17 women), and a workshop attended by 32 participants (including five women) for chiller owners and enterprises working with HCFC-123 and with enterprises that used pre-blended polyols. In addition, two meetings for importers and end-users of HCFC-123-based chillers with international RAC equipment and parts manufacturers were organized to discuss low-GWP technologies for the transition from HCFC-123.

13. Preparation has begun for the establishment of a reclamation centre, including a study on the feasibility of the reclamation and a survey on consumption of both HFCs and HCFCs in RAC sectors and subsectors for 2017-2021; the development of a business model; a visit and evaluation of possible enterprises for the reclamation centre; development of equipment specifications to establish a reclamation centre with capacity of 50 mt of HFCs and HCFCs, which can be scaled up to 150 mt; and awareness workshops on the importance of recovery and recycling centres. UNIDO undertook a mission in October 2023 to Qatar to visit the selected site of the reclamation centre and discuss logistics and equipment procurement; after the list of equipment and method of procurement is agreed upon, delivery is expected to take up to eight months. The legal framework for management of the centre, consisting of governmental policies to ensure its sustainability, was also being developed, supported by the upcoming mandatory recovery of refrigerants, the upcoming ban on disposable refrigerant cylinders, and a plan for the implementation of a licensing scheme for reclamation centres. That framework was expected to be finalized by June 2024, and the reclamation centre is expected to be operational by December 2024.

Project implementation and monitoring

14. Disbursements related to the project management and monitoring unit (consultants, travel, meetings and workshops) are expected to be made by March 2024.

Level of fund disbursement

15. As of October 2023, of the US \$344,500 approved so far (US \$205,000 for UNIDO and US \$139,500 for UNEP), US \$158,900 (46 per cent) had been disbursed (US \$62,400 for UNIDO and US \$96,500 for UNEP). The balance of US \$185,600 is expected to be disbursed by March 2024.

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

16. The following activities will be implemented between January 2024 and December 2025:

- (a) Legal framework:
 - (i) Procurement of five refrigerant identifiers for training centres and key ports/check points, and training of personnel (UNIDO) (funds from the previous tranche);
 - (ii) Launching the e-licensing system for public use, and one further training workshop

for local staff (15 participants) and two orientation sessions for importers and local authorities (10 participants each) on its use (UNEP) (US \$20,000);

- (iii) A training workshop for 20 customs officers, and a meeting to strengthen regional/cross-border enforcement cooperation related to control and monitoring of ODS trade (UNEP) (US \$10,000);
 - (iv) Continued monitoring and control of ODS, including operation of the licensing and quota system and finalizing the updated ODS policies and regulations, including the ban on disposable refrigerant cylinders and the ministerial decision to enact a mandatory and enforceable certification scheme and advance good servicing practices for RAC technicians (UNEP) (US \$5,000);
 - (v) Finalize the development of the legal framework for reclamation centres, including a proposal of financial incentives for recovery and recycling, and strengthening coordination between Government entities to enhance ODS control on imports under the Free Trade Agreement (UNEP) (US \$7,000);
- (b) Refrigeration servicing:
- (i) Technician training, including one refresher training for 20 trainers and four workshops to train 80 technicians on good servicing practices, including the safe handling of low-GWP alternatives (UNEP) (US \$30,000);
 - (ii) Finalize implementation of the pilot certification programme, including awareness-raising on the programme through the RAC associations, and certify at least 80 technicians in good servicing practices (UNEP) (US \$25,000);
 - (iii) Strengthening of the RAC industry through the organization of a workshop for the RAC sector and a meeting with enterprises in the sector (UNEP) (US \$5,000);
- (c) Technical assistance:
- (i) Procurement of equipment for one high-capacity reclamation centre, and training of personnel (UNIDO) (funds from the previous tranche);
 - (ii) Continuation of technical assistance to assist HCFC-123 chiller owners to transition to non-ODS and low-GWP alternatives, including through the organization of awareness workshops (UNIDO) (US \$5,000);
 - (iii) 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 \$70,000);
 - (iv) Awareness-raising activities through RAC associations to disseminate information on emerging technologies in RAC manufacturing and servicing, and development of materials to promote low-GWP alternative technologies through various media platforms (UNEP) (US \$15,000);
 - (v) Update of standards and codes that relate to the ODS sector, and awareness-raising on those internationally applicable standards (UNEP) (US \$7,500);

- (vi) Update of standards and codes as required under the Montreal Protocol, including on labelling, record-keeping, reporting requirements, and installation standards for low-GWP refrigerants (UNEP) (US \$10,000);
- (vii) Development of standard operating procedures for service workshops on handling flammable refrigerants, including awareness-raising (UNEP) (US \$10,000); and
- (d) Project management and monitoring, including consultants (US \$5,000), travel (US \$5,000), verification of consumption (US \$10,000), and meetings, workshops, and operating expenses (US \$5,000) (UNIDO).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption and verification

17. The verification report recommended establishing a system that includes an inventory of RAC equipment, a register of certified RAC technicians and enterprises, and a register of equipment operators, and that requires mandatory reporting on recovered, recycled and reclaimed refrigerants by RAC service enterprises. The Government, with the support of UNEP, will consider the recommendations during the implementation of the HPMP, guided by the experience of countries that have established similar systems and registers; however, the complexity, time required, and cost to implement the recommendations had to be considered, including in light of the financial support available under the HPMP. It was agreed that UNEP would include an update on the progress made in implementing the recommendations contained in the verification report as part of the progress report on the implementation of the second tranche of the HPMP.

18. The Secretariat noted that the trend in the country's HCFC-22 consumption appeared to differ from that in many other Article 5 countries, where consumption to service RAC equipment was decreasing including inter alia due to improved servicing practices and the uptake of non-HCFC-based RAC equipment; in contrast, consumption of HCFC-22 for servicing in Qatar has been fairly steady since 2019 notwithstanding the activities undertaken under the HPMP and the changing technology landscape. UNEP clarified that the high demand in the servicing sector was due to the high-ambient temperature conditions in the country, the high rate of development and urbanization, and the limited availability of alternatives suitable for the country, and emphasized that the country was committed to meeting the targets specified in its Agreement with the Executive Committee.

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

19. Decision 88/54(f) specifies that the submission of the second tranche of the HPMP was allowed once the Government had implemented: (i) a ban on disposable refrigerant cylinders; (ii) a mandatory certification scheme for RAC technicians; (iii) mandatory good servicing practices for RAC technicians, including record-keeping practices (e.g. HCFC log books and HCFC equipment log books for systems above a certain charge) and pre-determined schedules for leakage checks by certified personnel for systems with charges above a certain limit; and (iv) an e-licensing system. While the Government has implemented an e-licensing system, finalization of the ministerial decision associated with the other three commitments by the Government listed in decision 88/54(e) was pending.

20. Notwithstanding that the conditions specified in decision 88/54(f) had not been met, the Secretariat has, on an exceptional basis, reviewed the submission given the substantial reduction in the 2024 target specified in Appendix 2-A of the Agreement between the country and the Executive Committee; the

progress achieved in some components of the HPMP; and the high level of disbursement. However, while the Secretariat recommends the tranche for approval, it is on the understanding that the Treasurer be requested to transfer the approved funds to UNEP only once the Secretariat had confirmed that the country had implemented the commitments listed in decision 88/54(e)(i), (ii), and (iii).

Legal framework

21. The Government of Qatar has already issued HCFC import quotas for 2023 in accordance with the Montreal Protocol control targets.

22. Regarding the specific conditions included in the draft ministerial decision related to mandatory good servicing practices for RAC technicians, such as to which equipment the record-keeping practices and leakage checks would apply, UNEP clarified that the draft decision was still being finalized. Accordingly, UNEP would include detailed information on the ministerial decision when reporting to the Secretariat that the conditions in decision 88/54(f) had been met.

Refrigeration servicing sector

23. Regarding the delays in the training of customs officers, UNEP clarified that it had only been possible to hold the training in October 2023 as stage II of the HPMP had been approved in November 2021 and given the busy agenda of the customs authority during the tourism season and holidays. Similarly, while the technician training and a refresher training workshop for trainers had been delayed, all the necessary planning and arrangements had been made to hold those trainings by the end of 2023.

Level of fund disbursement

24. While UNEP has disbursed 69 per cent of the approved funds, at the time the tranche request was submitted, a number of planned activities had not yet been undertaken. UNEP explained that it implements the HPMP using a national implementation modality through a contract with the Government, which reported progress implementing activities and related expenditures, where part of those disbursements was for the preparatory phase of the planned trainings.

Gender policy implementation

25. The Government, UNIDO and UNEP have sought to encourage the participation of women in activities supported by the HPMP and have tracked such participation. All members of the NOU are women. UNIDO and UNEP will continue to work with the Government in the second tranche to encourage the participation of women in training programmes, track the number of female 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.

Sustainability of the HCFC phase-out and assessment of risks

26. The HCFC phase-out will be sustained through the implementation of the upcoming mandatory RAC technician scheme and good servicing practices; the November 2022 ban on the import of HCFC-based products and equipment; the 1 January 2020 ban on the import of HCFC-141b pure and contained in pre-blended polyols; strengthened control of trade in controlled substances, including through the implementation of the e-licensing system and the upcoming ban on disposable cylinders; continued training of customs officers and technicians; and the establishment and operation of the reclamation centre. In addition, the Government plans to introduce, and annually review, containment measures for HCFC-123 chillers.

27. UNIDO identified a number of possible risks, including possible delays in the finalization of the ministerial decision mandating recovery and reclamation of ODS, the ban on disposable cylinders, and challenges in the enforcement of the mandatory RAC technician certification scheme. In such case, the NOU would establish a memorandum of agreement with refrigerant suppliers as a condition for issuance of licences and continue its close collaboration with stakeholders to ensure the enforcement of the technician scheme. Risks associated with continued operation of HCFC-123-based chillers will be mitigated through improved containment procedures, strict enforcement of the country's licensing and quota system, and awareness-raising of low-GWP alternatives. The implementation of mandatory recovery and recycling will help ensure the sustainable operation of the reclamation centre.

28. Requesting the Treasurer to transfer the funding associated with UNEP for the second tranche of the HPMP once the Secretariat had confirmed the conditions specified in decision 88/54(f) had been met will support finalization of the associated ministerial decision and continued implementation of activities to support the phase out.

Conclusion

29. The country has an enforceable licensing and quota system, has implemented an e-licensing system in line with decision 88/54(e)(iv), and is in compliance with the 2020-2022 targets specified in its Agreement with the Executive Committee. The level of disbursement is 46 per cent. The country's e-licensing system also includes HFCs and recently held training of customs officers will help ensure the county will continue to enforce its licensing and quota system. Upcoming training of technicians, and a refresher training for trainers, will further strengthen the capacity of technicians to implement good servicing practices. The country has implemented a ban on the import of HCFC-141b contained in pre-blended polyols as of 1 January 2020, in advance of the timeline indicated in decision 88/54(g). Progress has been made in the establishment of the reclamation centre, including the development of a business model, selection of a beneficiary, and identification of equipment needs; approval of the country's tranche will help ensure that the centre is operational by December 2024. The legal framework for management of the reclamation centre, and regulatory policies that will help ensure its sustainability, are expected to be finalized by June 2024. While a draft ministerial decision that addresses the Government's commitments listed in decision 88/54(e)(i), (ii), and (iii) has been drafted, it has not yet been finalized. Accordingly, and noting that continued momentum in implementation will help the country meet its 2024 target, which is 29 per cent below the country's 2022 consumption, the Secretariat recommends that the Executive Committee approve the second tranche of the HPMP on the understanding that US \$144,500, plus agency support costs of US \$18,785 for UNEP, will only be transferred to UNEP once the Secretariat confirmed that the conditions under decision 88/54(f) have been met.

RECOMMENDATION

30. The Fund Secretariat recommends that the Executive Committee note the progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for Qatar, and further recommends blanket approval of the second tranche of stage II of the HPMP for Qatar and the corresponding 2024-2025 tranche implementation plan at the funding levels shown in the table below, on the understanding that:

- (a) The approved funds of US \$144,500, plus agency support costs of US \$18,785, would only be transferred to UNEP after the Secretariat had confirmed that the country had implemented the commitments listed in decision 88/54(e)(i), (ii), and (iii); and
- (b) UNEP would include an update on progress made in implementing the recommendations contained in the 2020-2022 verification report as part of the progress report on the implementation of the second tranche of the HPMP.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	100,000	7,000	UNIDO
(b)	HCFC phase-out management plan (stage II, second tranche)	144,500	18,785	UNEP