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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fifth Meeting
Montreal, 4-8 December 2024
Item 9(c) of the provisional agenda¹

PROJECT PROPOSAL: KUWAIT

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) | UNEP and
UNIDO | Blanket
approval |
|---|-------------------|---------------------|

¹ UNEP/OzL.Pro/ExCom/95/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Kuwait

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

(II) LATEST ARTICLE 7 DATA (Annex C, Group I)	Year: 2023	147.03 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2023	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22				3.36	143.61				146.96
HCFC-123					0.07				0.07
HCFC-141b in imported pre-blended polyols		19.80							19.80

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	418.60	Starting point for sustained aggregate reductions:	429.24
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	334.90	Remaining:	94.34

(V) ENDORSED BUSINESS PLAN		2024	2025	2026	Total
UNEP	ODS phase-out (ODP tonnes)	38.07	10.08	0.00	48.15
	Funding (US \$)	1,130,242	299,298	0	1,429,540
UNIDO	ODS phase-out (ODP tonnes)	10.80	2.25	0.00	13.05
	Funding (US \$)	307,732	64,200	0	371,932

(VI) PROJECT DATA			2021	2022	2023	2024*	2025	Total
Montreal Protocol consumption limits (ODP tonnes)			272.09	272.09	272.09	272.09	136.05	n/a
Maximum allowable consumption (ODP tonnes)			254.51	254.51	244.51	234.51	136.05	n/a
Funding agreed in principle (US \$)	UNEP	Project costs	670,840	0	1,013,560	0	268,400	1,952,800
		Support costs	77,228	0	116,682	0	30,898	224,808
	UNIDO	Project costs	249,600	0	287,600	0	60,000	597,200
		Support costs	17,472	0	20,132	0	4,200	41,804
Funds approved by ExCom (US \$)	Project costs		920,440	0	0	0	0	920,440
	Support costs		94,700	0	0	0	0	94,700
Total funds recommended for approval at this meeting (US \$)	Project costs		0	0	0	1,301,160	0	1,301,160
	Support costs		0	0	0	136,814	0	136,814

*The second funding tranche was due in 2023.

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Kuwait, UNEP 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 \$1,437,974, consisting of US \$1,013,560, plus agency support costs of US \$116,682, for UNEP and US \$287,600, plus agency support costs of US \$20,132, for UNIDO.² The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2021 to 2023, and the tranche implementation plan for 2024 to 2026.

Report on HCFC consumption

2. The Government of Kuwait reported a consumption of 147.03 ODP tonnes of HCFCs in 2023, which is 64.9 per cent below the country's HCFC baseline for compliance. The 2019-2023 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Kuwait (2019-2023 Article 7 data)

HCFC	2019	2020	2021	2022	2023	Baseline
Metric tonnes (mt)						
HCFC-22	3,138.00	3,345.98	3,147.00	2800.85	2,672.00	4,735.50
HCFC-123	2.60	3.74	3.59	0.00	3.46	14.00
HCFC-124	0.40	0.00	0.40	0.00	0.00	0.00
HCFC-141b	420.00	380.00	360.00	241.20	0.00	683.50
HCFC-142b	535.00	429.53	180.00	0.00	0.00	1,272.00
Total (mt)	4,096.00	4,159.25	3,690.99	3,042.05	2,675.46	6,705.00
HCFC-141b in imported pre-blended polyols*	395.00	370.00	235.00	190.00	180.00	96.73**
ODP tonnes						
HCFC-22	172.59	184.03	173.09	154.05	146.96	260.45
HCFC-123	0.05	0.07	0.07	0.00	0.07	0.28
HCFC-124	0.01	0.00	0.01	0.00	0.00	0.00
HCFC-141b	46.20	41.80	39.60	26.53	0.00	75.19
HCFC-142b	34.78	27.92	11.70	0.00	0.00	82.68
Total (ODP tonnes)	253.63	253.82	224.47	180.58	147.03	418.60
HCFC-141b in imported pre-blended polyols*	43.45	40.70	25.85	20.90	19.80	10.64**

* Country programme (CP) data

** Starting point established in the Agreement with the Executive Committee

3. The decrease in consumption of HCFC-141b (including HCFC-141b contained in imported pre-blended polyols) and HCFC-142b is due to regulatory import controls and the completion in the conversion of foam manufacturing enterprises. Although the overall consumption of HCFC-22 is decreasing from the established baseline level, the demand for HCFC-based air-conditioning (AC) equipment remains high. The levels of market penetration of low-global-warming-potential (GWP) alternatives in the AC sector is low.

Country programme implementation report

4. The Government of Kuwait reported HCFC sector consumption data under the 2023 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

² As per the letter of 30 October 2024 from the Environment Public Authority (EPA) of Kuwait to UNEP.

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 2021 to 2023 was correct (as shown in table 1 above). The verification recommends that the national ozone unit (NOU) should, *inter alia*, review importer-level information on HCFC imports against the quotas and maintain relevant records; review information on issues related to HCFC imports along with the effectiveness of corrective actions taken; undertake surveillance of HCFCs available in markets and conduct training programmes for customs officers; and work with information technology personnel on the e-licensing scheme. These activities would be implemented during the second tranche of stage II, as well as during stage III of the HPMP to be submitted at a future date.

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

6. Stage I of the HPMP was completed on 30 June 2022, in line with the extension approved by the Executive Committee in decision 88/71(b)(i). The project completion report was submitted on 29 October 2024.

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

Legal framework

7. Kuwait has adopted the 2022 Harmonized Systems (HS) code, including the introduction of sub-digits for better identification of all controlled substances. Additionally, the processes for licensing and controlling of imported ODS have been enhanced following five coordination meetings with the Customs department.

8. A national committee was established to enhance coordination between national enforcement bodies responsible for monitoring and controlling imported substances, with the aim to improve the licensing system to streamline processes and avoid duplication. The committee is composed of the NOU/Kuwait Environment Protection Authority (KEPA), the Customs department, the firefighting department, the Authority of Industry, the Ministry of Interior, the Ministry of Trade, the Kuwait Investment Promotion Authority, and the Chemical Department in KEPA. Three consultation meetings were held with all stakeholders, including industry representatives and relevant authorities, to raise awareness about the applicable ODS regulations and requirements under the licensing and quota system. The emphasis was on the country's obligations to meet the targets outlined in its Agreement with the Executive Committee.

9. In March 2022, a three-day training course was organized at the Higher Institute of Telecommunication and Navigation for eight trainers (including two females) from both the customs department and the institute. The training programme covered aspects relating to the Montreal Protocol, the country's obligations under the Protocol, and the control and monitoring of HCFC consumption.

10. The capacity of 541 customs officers (including 94 females) has been built through 22 training sessions covering the Montreal Protocol and Kuwait's commitment under the Protocol, recent regulations prohibiting HCFC use in various applications, and specific steps for controlling and monitoring HCFC imports, including addressing illegal trade issues.

11. In addition, the NOU communicated on regular basis with customs brokers and importers to update them on policies and regulations regarding the trade of controlled substances, including procedures for licensing such trade. A training workshop for customs brokers will be organized during the fourth quarter of 2024.

12. Kuwait has approved the Kigali Amendment in November 2024.

Refrigeration servicing sector

13. In 2022, the NOU, through a series of coordination meetings with relevant authorities, particularly the Manpower Authority, concluded the framework for the certification of refrigeration and air-conditioning (RAC) servicing technicians. This led to the adoption of a mandatory qualification framework for RAC servicing technicians, formalized by a new memorandum of understanding (MoU) signed between the concerned authorities to ensure coordinated implementation with KEPA.

14. A comprehensive database for RAC servicing workshops has been established, including details about these workshops. The Ministry of Municipalities is responsible for registering and providing working permissions for all workshops, including those in the RAC servicing sector. A training orientation session will be organized in coordination with UNEP during the fourth quarter of 2024.

15. In May 2023, a reclamation centre was established with the assistance of UNIDO, and in partnership with the United Factory for Compressors and Refrigerants. The equipment supplied included gas chromatograph for lab testing, two reclaim machines, six recovery machines, vacuum pump and related tools and cylinders. The centre is operated following a business model that has been developed by UNEP through a feasibility study. Kuwait will continue its work during stage II to develop related policies and procedures for the sound operation of the reclamation scheme, including organizing a consultation workshop to update/develop required policies and bylaws for regulating recovery and recycling. A workshop is planned at the end of 2024, with the intention to benefit from Bahrain's successful experience in this area. This is a part of the training programmes aimed at increasing the capacity of technicians to operationalize the recovery and reclamation programme.

16. The curriculum of national education and vocational training institutes has been updated to cover all aspects related to the use of alternative refrigerants. The NOU will develop an updated curriculum for training RAC technicians in the servicing sector based on UNEP's training package. The College of Technological Studies has already updated its curriculum to include good practices in the maintenance, safety and handling of refrigerants in various RAC courses.

17. In the fourth quarter of 2024, the NOU, with support from UNEP, will organize three training workshops for approximately 45 teachers and instructors in the educational and vocational training system covering different provisions of the Montreal Protocol and best practices, including safety aspects of dealing with long-term alternatives. Additionally, the NOU will organize a training workshop for 15 assessors to implement the national applicable certification scheme.

18. The evaluation criteria, including the Recognition of Prior Learning (RPL) criteria, will be updated with assistance from the NOU and UNEP. UNEP will recruit a consultant during the fourth quarter of 2024 to review the RPL criteria based on the national qualification system and integrate new principles and concepts, as required, into the national qualification criteria for certification.

19. Two workshops have been conducted, one for the College of Technological Studies with international experts for 25 participants, and two for senior maintenance technicians. A total of 12 training sessions were organized for 347 RAC technicians from major companies covering a range of topics on good servicing practices and safe servicing of RAC equipment. These sessions also included hands-on training of technicians.

20. The NOU signed a MoU, operational since 2022, with the Kuwait chapter of ASHRAE, to collaborate on issues related to the implementation of the Montreal Protocol and the promotion of alternative technologies and to build capacities of the heating, ventilation, and air-conditioning (HVAC) sector.

21. The NOU, through the Kuwait Institute for Scientific Research (KISR), provided assistance to the Avenues Mall, one of the largest end users, to support efforts in assessing leaks and proposing required improvements to reduce leakage rates to acceptable levels, as well as promote better practices and improve on-site management of refrigerants.

22. Regular meetings and communication with the RAC manufacturing and servicing sectors were organized to update them about recent policies and technical developments, and to discuss the challenges associated with potential alternatives. An awareness-raising campaign was implemented using various media channels to raise awareness of stakeholders on low-GWP alternatives. This campaign included social media outreach and lectures at Kuwait University in cooperation with other parties. In 2024, a round table meeting was organized with the Ministry of Electricity and Power and industry representatives to provide updates on recent policies and developments, and to require updates to standards, including minimum energy performance standards, as part of national efforts to enhance energy efficiency in the RAC sector. Another round table meeting was organized with a committee composed of relevant authorities (e.g., the Ministry of Electricity and Power, the University of Kuwait, EPA) to discuss and develop a code for district cooling. World Ozone Day was celebrated in cooperation with industry representatives and with the participation of UNEP, in the presence of relevant national authorities.

23. The NOU will coordinate with KISR to conduct research on the safety and performance of low-GWP technologies. Multiple meetings have been held in this regard and it is expected that the MoU will be signed in November 2024.

24. Several meetings were organized with the Standards Administration/General Authority for Industry to discuss the necessary updates to related standards based on the roadmap developed in cooperation with UNEP for the Gulf Cooperation Council countries. The updates have been initiated, including relevant consultation with the industry, and will continue during implementation of the second tranche.

25. Several consultation meetings were held with the RAC servicing sector and industry, as well as with Academia, Civil defence, to discuss the draft standard operating procedures (SOPs) for handling flammable and hazardous refrigerants. This work will continue during the implementation of the second tranche.

Project implementation and monitoring

26. The NOU is responsible for the overall project coordination, assessment and monitoring. During the first tranche, funds for staff and consultants (US \$38,000) and meetings (US \$12,000) were disbursed.

Level of fund disbursement

27. As of September 2024, of the US \$920,440 approved so far (US \$670,840 for UNEP and US \$249,600 for UNIDO), US \$538,400 (58.5 per cent) had been disbursed (US \$293,400 for UNEP and US \$245,000 for UNIDO). The balance of US \$382,040 is expected to be disbursed in 2025.

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

28. The following activities will be implemented between January 2025 and December 2026:

- (a) Continue targeted awareness activities relating to national policies and regulations for relevant government authorities and other stakeholders, and enforcement of these regulations; strengthen the implementation of the e-licensing system and monitoring system, as necessary; development and implementation of e-registration of service workshops (UNEP) (US \$126,000);

- (b) Training of 20 customs trainers; three training workshops for 60 customs officers on the Montreal Protocol and HCFC control, including risk profiling, at the customs training institutes; training of 40 enforcement officers to support enforcement beyond border check points; conduct at least four coordination meetings and consultations with customs brokers on HCFC monitoring and reporting, and control of illegal trade (UNEP) (US \$82,000);
- (c) Update the training curriculum and provide training support to 30 teachers and assessors on the new curriculum and on new competency-based assessment with good servicing practices; provide assistance to the assessment and qualification awarding bodies to update the evaluation criteria, including the RPL criteria, to cover the good practices components; provision of training tools and equipment to four training schools and the qualification assessment awarding institutes; provide support for the implementation of the national certification of RAC technicians through RPL campaign covering assessment test costs for 310 technicians; conduct one training workshop for 25 master trainers on good service practices and safe servicing using refrigerants; training programme on RAC good servicing practices for 1,700 technicians, in collaboration with local institutes and industry (UNEP) (US \$638,560);
- (d) Establish a second national recovery, recycling and reclamation centre; establish two training centres at selected technical colleges and conduct awareness workshops and training for RAC technicians on recovery, recycling and reclamation; continue the development of certification procedures for reclaim centres hosts, technicians and servicing workshops (UNIDO) (US \$287,600);
- (e) Dissemination of information on the latest development and emerging technologies with an emphasis on RAC manufacturing and servicing in collaboration with RAC associations; provide technical support to large end users, to reduce leaks and transition into non-ODS and low-GWP alternatives; provide assistance to establish a country-wide registration system; continue the campaign on HCFC phase-out and HCFC alternatives (e.g., information on low-GWP alternatives), including production and distribution of printed materials (e.g. newspaper ads, articles in journals) and through mass media (e.g. short films) in local language; conduct annual round table on technical and policy aspects relating to the adoption of HCFC alternatives and World Refrigeration Day celebrations to promote HPMP implementation and sustainable alternatives to HCFCs; outreach on the launching of the RPL programme (UNEP) (US \$105,000);
- (f) Continue coordination and consultations relating to the development and introduction of national standards and codes that relate to ODSs and introduction/promotion of the internationally applicable standards (e.g., labelling, record-keeping and reporting requirements); update national standards on RAC products in accordance with international standards; development and finalization of SOPs for the servicing workshops for handling flammable and hazardous refrigerants (UNEP) (US \$12,000); and
- (g) Project monitoring (UNEP) (US \$50,000) that includes staff and consultants.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

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

Legal framework

29. The Government of Kuwait has already issued HCFC import quotas for 2024 at 158.24 ODP tonnes, which is lower than the Montreal Protocol control and the agreement targets.

Implementation of bans (decision 88/51(b)(ii) and (iii))

30. In approving stage II of the HPMP for Kuwait, the Executive Committee noted the commitment of the Government to establish, by 1 January 2025, a ban on the manufacturing and import of HCFC-22-based equipment and a ban on the import and use of HCFC-141b contained in pre-blended polyols. UNEP informed the Secretariat that the bans are under consideration by KEPA and other relevant regulatory authorities. The order confirming the bans is expected to be issued by the end of 2024 and take effect from 1 January 2025. In addition, Kuwait is also restricting imports of HCFC-142b after their phase-out projects were completed in HPMP stage I.

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

Refrigeration servicing sector

Recovery and recycling of HCFCs

31. On recovery and recycling of HCFCs, UNEP explained that a reclamation centre was established in May 2023 and is operated in partnership with the United Factory for Compressors and Refrigerants. The quality of reclaimed refrigerants is controlled by the company based on standard quality control checks applicable for the refrigerants. Another reclamation centre will be established during the implementation of the second tranche. Additionally, the Government of Kuwait has a plan for organizing a workshop towards the end of 2024 to exchange experience with Bahrain about the sound operation of the recovery, recycling and reclamation programme. Furthermore, the Government is working with the service sector to enhance good servicing practices and adopt measures to maximize recovery and recycling of HCFC-22 to meet the market demand. The guidelines for recovery and reclamation of HCFC-22 that are under discussions are expected to be adopted within the next year and this will further strengthen the sustainability of recovery, recycling and reclamation.

Certification of technicians

32. UNEP informed the Secretariat that Kuwait has implemented a certification framework for RAC servicing technicians. A database of workshops has been created, and the Ministry of Municipalities is responsible for their registration and permits. Awareness activities are also being undertaken to promote the certification of technicians and the use of certified technicians for the maintenance and servicing of equipment.

Training of service technicians

33. UNEP explained that during the first tranche, consultants were engaged to update the curriculum of national education and vocational training institutes to cover all aspects related to the use of new alternative refrigerants. The funds balance would be used to develop an updated curriculum for the training of RAC servicing technicians based on UNEP's training package.

34. On updating the training syllabus at each Governorate, UNEP explained that there should be a standard training syllabus in the country covering good servicing practices and safe handling of alternative refrigerants, including flammable, high-pressure or toxic refrigerants. The proposed update will be done at the central level with the Applied Education Authority and would be applicable at national level. Furthermore, the NOU is planning to upgrade their National Occupational Competency Standards and the National Qualification Framework to include the good servicing practices and safe handling of alternative refrigerants that are either flammable, high pressure or toxic.

Gender policy implementation

35. In line with decisions 84/92, 90/48(c) and 92/40(b), gender mainstreaming is being incorporated into all HPMP activities. During the implementation of stage II of the HPMP, the NOU will make every effort to collect gender-disaggregated data and information to track and report on gender based on set targets and indicators for Multilateral Fund projects.³ Training and meetings on ozone issues will continue to include sessions on gender to sensitize participants to the importance of gender mainstreaming and women's participation and empowerment. Two women consultants were engaged during the first tranche of stage II. Throughout project implementation, staff will be sensitized on gender mainstreaming aspects and encouraged to take steps to maximize women's participation in project design and implementation of activities.

Sustainability of the HCFC phase-out and assessment of risks

36. The Government of Kuwait will continue to strengthen its licensing and quota system for HCFCs, including related prohibitions. Additional training will be provided to service technicians on good service practices, and the training curriculum would be strengthened for sustained training on good service practices and safe adoption of alternatives, as required. The Government would continue to strengthen implementation of the recovery, recycling and reclamation programme for HCFC-22. Furthermore, it is also planning to implement measures for promoting the adoption of low-GWP alternative technologies, including standards for RAC products and guidelines for end-of-life management of equipment. These measures would not only ensure faster adoption of sustainable alternative refrigerants but also promote refrigerant life-cycle management. Additionally, the Government would engage closely with national regulatory authorities, service sector and other national stakeholders on implementation of different activities under stage II of the HPMP. Finally, with the recent approval of the Kigali Amendment, the Government would develop plans for the adoption of sustainable alternatives and minimize risks of continued dependence on HCFC- and HFC-based equipment.

Conclusion

37. The Government of Kuwait has been implementing a licensing and quota system for HCFC imports and exports and has remained in compliance with the Montreal Protocol and the targets outlined in its Agreement with the Executive Committee. The quota for HCFCs for 2024 is 158.24 ODP tonnes (67.4 per cent of the maximum allowable consumption for that year). The disbursement rate for the first tranche is 58.5 per cent of the approved funds. During the second tranche of the HPMP, Kuwait will continue to implement measures to strengthen the monitoring and control of HCFCs, including e-licensing system, implement certification of service technicians and training and capacity building of service technicians, trainers and evaluators, conduct awareness and outreach of HPMP, and develop and introduce standards related to ODS, RAC equipment and the use of flammable refrigerants in the service sector. These activities would facilitate the reduction in HCFC consumption and catalyze the adoption of alternatives. Kuwait would achieve its 2025 targets by strictly enforcing quota and licensing systems, enhancing the capacity of the RAC servicing sector to minimize unnecessary consumption and leaks, promoting recovery, recycling, and reclamation of HCFCs, and incentivizing the adoption of alternative refrigerants and technologies. With

³ Annex XXII of document UNEP/OzL.Pro/ExCom/92/56

an additional reduction of approximately 11.00 ODP tonnes of HCFC-22 compared to the reported consumption in 2023 of 147.03 ODP tonnes primarily used in the servicing sector, Kuwait can effectively meet its targets.

RECOMMENDATION

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

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	1,013,560	116,682	UNEP
(b)	HCFC phase-out management plan (stage II, second tranche)	287,600	20,132	UNIDO