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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-ninth Meeting
Montreal, 7–11 December 2026
Item 9(c) of the provisional agenda¹

PROJECT PROPOSAL: LEBANON

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

Phase-out

- HCFC phase-out management plan (stage III, second tranche) UNDP Blanket approval

¹ UNEP/OzL.Pro/ExCom/99/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS**Lebanon**

PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage III)	UNDP (lead)	93 rd	100% phase-out by 2030

ARTICLE 7 DATA (Annex C, Group I)	Year: 2025	17.76 ODP tonnes
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COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2025
Substance	Aerosol	Foam	Firefighting	Refrigeration		Solvent	Total sector consumption
				Manufacturing	Servicing		
HCFC-22				0.40	17.36		17.76
HCFC-123							0.00
HCFC-141b							0.00

CONSUMPTION DATA (ODP tonnes)			
2009–2010 baseline:	73.50	Starting point for sustained aggregate reductions:	73.53
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	73.53	Remaining:	0.00

ENDORSED BUSINESS PLAN		2026	2027	2028	Total
UNDP	ODS phase-out (ODP tonnes)	6.60	0.00	0.00	6.60
	Funding (US \$)	677,445	0	0	677,445

PROJECT DATA		2023	2024	2025	2026	2027	2028–2029	2030	Total
Consumption (ODP tonnes)	Montreal Protocol limits	47.78	47.78	23.88	23.88	23.88	23.88	0.00	n/a
	Maximum allowable	27.58	18.39	17.84	17.84	17.84	8.92	0.00	n/a
Amounts approved in principle (US \$)	UNDP	Project costs	414,824	0	0	633,126	0	0	1,182,700
		Support costs	29,038	0	0	44,319	0	0	82,789
Funds approved by ExCom (US \$)	UNDP	Project costs	414,824	0	0	0	0	0	414,824
		Support costs	29,038	0	0	0	0	0	29,038
Total funds recommended for approval at this meeting (US \$)	UNDP	Project costs	0	0	0	633,126	0	0	633,126
		Support costs	0	0	0	44,319	0	0	44,319

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Lebanon, UNDP as the designated implementing agency has submitted a request for funding for the second tranche of stage III of the HCFC phase-out management plan (HPMP), in the amount of US \$633,126, plus agency support costs of US \$44,319.² The submission includes a progress report on the implementation of the first tranche, verification reports on HCFC consumption for 2023 to 2025, and the tranche implementation plan for 2027 to 2030.

Report on HCFC consumption

2. The Government of Lebanon reported a consumption of 17.76 ODP tonnes of HCFCs in 2025, which is 76 per cent below the country's HCFC baseline for compliance. The 2021–2025 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in 2021–2025 in Lebanon (Article 7 data)

HCFC	2021	2022	2023	2024	2025	Baseline
Metric tonnes (mt)						
HCFC-22	474.28	465.99	447.79	333.10	322.85	653.55
HCFC-123	0.00	0.00	0.00	0.00	0.00	2.50
HCFC-141b	0.00	0.00	0.00	0.00	0.00	341.18
Total (mt)	474.28	465.99	447.79	333.10	322.85	997.23
ODP tonnes						
HCFC-22	26.09	25.63	24.63	18.32	17.76	35.95
HCFC-123	0.00	0.00	0.00	0.00	0.00	0.05
HCFC-141b	0.00	0.00	0.00	0.00	0.00	37.53
Total (ODP tonnes)	26.09	25.63	24.63	18.32	17.76	73.53

3. HCFC-22 is used predominantly in the refrigeration and air-conditioning (RAC) servicing sector, with a small quantity (2.2 per cent in 2025) used by one commercial refrigeration manufacturing enterprise (Farjallah Holding S.A.L.). The total HCFC consumption decreased gradually between 2021 and 2023, reflecting activities in the servicing sector, the gradual replacement of HCFC-22-based equipment, and the conversion of air-conditioning (AC) manufacturing enterprises in 2019 and 2021. Consumption fell in 2024, when the HCFC-22 import quota was reduced to the maximum allowable consumption under the Agreement. A ban on HCFC use in the AC manufacturing sector and on new HCFC-based installations was issued in December 2025 to support the continued HCFC phase-out. HCFC-141b consumption has remained at zero since 2021, following the conversion of the sandwich-panel for solar and electric water-heater manufacturing enterprises.

Country programme implementation report

4. The HCFC consumption reported by the Government of Lebanon in its country programme (CP) implementation report for 2025 is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

5. The verification reports 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 2023 to 2025 was correct (as shown in table 1 above), except for small differences for 2023 and 2025, when the verified consumption of 24.62 and 17.75 ODP tonnes, respectively, differed from the data reported under Article 7 owing to rounding differences in the conversion from metric to ODP

² As per the letter of 23 September 2026 from the Ministry of Environment of Lebanon to UNDP.

tonnes. The verification concluded that HCFC consumption in each year was below the maximum allowable consumption set out in the Agreement. HCFC-22 was the only HCFC imported and no exports were recorded. The verification also made several recommendations which are discussed in paragraph 15 below.

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

6. Stage II of the HPMP was completed on 31 December 2025. The project completion report was submitted on 27 April 2026.

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

Legal framework

7. A legal review of the national framework governing Montreal Protocol controlled substances, including Decree No. 3277/2016 on the control of ODS, covering importer registration, licensing, quota allocation and management, reporting requirements and opportunities for digitalization was completed on 11 August 2026. This review and a consultation with Government authorities, Customs, importers and other stakeholders informed the development of a compendium of ODS phase-out legislation and policies. Revisions to the decree are being considered to strengthen and digitalize importer registration, quota allocation and licensing, including controls on HCFC-based equipment.

8. In December 2025, the Ministry of Environment issued Ministerial Decision No. 51/1, banning HCFC use in AC manufacturing and the import and establishment of new HCFC-based installations, thereby preventing new HCFC-based manufacturing capacity.

9. A consulting company was assigned to update the customs officer training module, with completion expected in the fourth quarter of 2026, to support Customs training under the second and third tranches. An ODS imports risk profile manual was finalized following legal and technical review, in coordination with the national ozone unit (NOU), the Ministry of Environment and in consultation with Customs. The manual serves as an internal customs guide for controlling imports and preventing illegal trade.

Commercial refrigeration manufacturing

10. Contractual arrangements were finalized to initiate technical assistance activities to phase out 11.07 mt (0.61 ODP tonnes) of HCFC-22 used by Farjallah Holding S.A.L. in its cold-room condensing unit production line. The full amount of approved funds (US \$53,136) was disbursed, and the enterprise is expected to cease using HCFC-22 by July 2027; this enterprise is the only enterprise using HCFC-22 in manufacturing.

Refrigeration servicing sector

11. The following activities were implemented during the first tranche of stage III of the HPMP:

- (a) *RAC servicing sector training and certification*: Standardized training materials on good servicing practices were developed, and 41 RAC trainers³ (including 14 women) were trained in August 2026 through a train-the-trainers programme;

³ Compared with 15 trainers planned. The trainers will deliver the training and certification of 500 RAC technicians planned under the second tranche.

- (b) *Equipment for training centres:* Equipment and tools⁴ to establish a new training centre were delivered in July 2026, and instructors were trained in their use; and
- (c) *Awareness activities:* Two outreach events on HCFC controls and import procedures were held for 91 representatives of registered importers, including 29 women; seven communication products and an end-user campaign were developed to raise awareness of HCFC controls and alternative technologies; and 14 technical workshops on the use and application of alternative technologies were held at three vocational training centres for 226 RAC trainees, including 25 women.

Project implementation and monitoring

12. The NOU and UNDP, supported by the project management unit (PMU), monitor activities, report on progress and coordinate with stakeholders. Of the US \$62,500 approved for project monitoring under the first tranche, US \$46,927 was disbursed for PMU staff (US \$30,927), stakeholder coordination, including travel, meetings and communication (US \$8,000), and verification (US \$8,000). The balance of US \$15,573 is for PMU staff costs and will be disbursed by 31 December 2026.

Level of fund disbursement

13. As of September 2026, of the US \$414,824 approved so far, US \$383,028 (92 per cent) had been disbursed. The balance of US \$31,796, which is committed to ongoing activities, will be disbursed in 2026 and 2027.

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

14. The following activities will be implemented by UNDP between January 2027 and December 2030:
- (a) Completion of the technical assistance to Farjallah Holding S.A.L.;
 - (b) *Customs and enforcement:* Training of 38 customs officers on HCFC import control (US \$33,750);
 - (c) *RAC servicing sector training and certification:* Training and certification of 500 RAC technicians on good servicing practices (US \$150,000, plus funds from the previous tranche);
 - (d) *Equipment for training centres:* Provision of training equipment and tools⁵ to two vocational training centres (US \$185,376);
 - (e) *Awareness-raising activities:* One campaign on HCFC bans, controlled uses and leakage reduction targeting refrigerant importers and distributors, RAC servicing enterprises and technicians, equipment owners and relevant enforcement authorities (US \$40,000); two end-user campaigns on the safety and benefits of ODS-free and low-GWP alternatives

⁴ Equipment for the new centre comprised two simple compression refrigeration training units; two domestic refrigeration and freezer training units; two refrigeration-cycle demonstration units; four refrigerant recovery machines; ten recovery cylinders; ten manifold sets; four charging scales; eight electronic leak detectors; four vacuum pumps; eight vacuum gauges; ten tubing tool sets; two thermometers; two clamp meters; and ten general tool sets.

⁵ Equipment for each training centre will include: a basic refrigeration-cycle training unit; a basic split AC training unit; a basic commercial refrigeration display/door training unit; nine manifold gauge sets; nine leak detectors; nine weighing scales; three small-scale charging machines; nine refrigerant recovery and recycling units; three vacuum pumps (4 cfm); nine digital vacuum gauges; nine negative temperature coefficient thermometers; and nine refrigerant cylinders.

targeting owners, operators and purchasing and maintenance personnel of facilities using HCFC-based RAC equipment, including supermarkets, hotels, restaurants and commercial and institutional buildings (US \$20,000); and three national level technical workshops on alternative technologies for a total of 600 participants (US \$169,000) (Total US \$229,000); and

- (f) *Project monitoring*: PMU staff (US \$21,000); stakeholder coordination, including travel, meetings and communication (US \$6,000); and independent verification of HCFC consumption (US \$8,000) (Total US \$35,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption and verification

15. The verification reports did not include the comparison between licensed quantities with actual imports by the importer, though the total quantity of HCFCs imported was verified. On including information on future verifications an importer-level comparison of licensed quantities with actual imports recorded by Customs, UNDP confirmed that this would be undertaken in future, in line with the guidelines for the verification of national HCFC consumption targets. UNDP will provide an update on the progress in implementing the recommendations contained in the verification reports for 2023 to 2025 submitted to the 99th meeting, including on the training of customs officers, the electronic management of imports, and the regular reconciliation of importer, customs and national ozone unit data.

16. UNDP explained that the NOU coordinates actively with the customs authorities to prevent illegal trade.

17. Lebanon imports R-408A, a blend containing 47 per cent HCFC-22 and 53 per cent HFCs, for commercial refrigeration manufacturing and servicing (1.68 mt in both 2022 and 2023, and 2.35 mt in both 2024 and 2025). The Secretariat noted that the 2022 and 2023 CP reports omitted the blend's HCFC-22 content (0.79 mt in 2022 and 2023) from HCFC-22 annual totals. UNDP confirmed that HCFC-22 in R-408A is included in the national HCFC-22 import quota and Lebanon has submitted revised CP data for the years 2022 and 2023.

18. UNDP explained that HCFC-containing blends are identified by the designation and composition in import authorizations reviewed by the NOU before customs clearance. For R-408A, the gross quantity is recorded, and its HCFC-22 content (47 per cent) is calculated separately for consumption reporting under relevant data reporting. UNDP indicated that the current customs codes cover HFC blends, but further development of the codes is needed to distinguish HCFC-containing blends from HFC-only blends; the Secretariat noted that HCFC-containing blends may remain on the market depending on demand.

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

Legal framework

19. The Government of Lebanon has issued the HCFC import quota for 2026 at 16.93 ODP tonnes, which is lower than the Montreal Protocol control target and the maximum allowable consumption of 17.84 ODP tonnes under the Agreement. The quota for 2027 has not yet been issued.

20. Under decision 93/43(b)(ii), the Government of Lebanon committed to ban HCFC-22 use in local manufacturing and the import and establishment of new HCFC-based installations by 31 December 2025.

At the 97th meeting, UNDP reported that, as of 1 January 2025, the manufacture of RAC equipment using HCFCs was prohibited in Lebanon and that the remaining HCFC consumption was solely in the servicing sector.⁶ UNDP clarified that the ban was applied on a trial basis from January 2025 and formalized through Ministerial Decision No. 51/1 in December 2025. The Ministerial Decision covers AC manufacturing, where no HCFC-22 has been consumed since January 2025 and prevents the establishment of new HCFC-based capacity. It does not cover commercial refrigeration manufacturing, where one enterprise continues to use HCFC-22 (paragraph 21 below). UNDP indicated that the regional conflict had delayed both the conversion at the enterprise and the regulatory process, and that the Ministry of Environment aims to extend the ban to all local manufacturing by the end of 2027, in line with decision 93/43(b)(ii). UNDP will provide an update on the enforcement of this ban while submitting the next tranche.

Manufacturing sector

21. Farjallah Holding S.A.L., the only enterprise using HCFC-22, used 7.25 mt (0.40 ODP tonnes) of HCFC-22 in 2025. UNDP indicated that the funds disbursed were supporting the transition of the enterprise's condensing unit line from HCFC-22 to HFC-32, covering technical experts for design adjustments, installation and performance testing, and personnel costs for installation, commissioning and testing. Following delays related to regional insecurity, the activities are expected to be completed by the end of 2026. HCFC-22 use will continue until July 2027 to allow trial production and validation of the new line, during which time it will remain outside the scope of Ministerial Decision No. 51/1.

Refrigeration servicing sector

Equipment for training centres

22. Equipment procured under the first tranche of stage III of the HPMP for the new RAC training centre included domestic refrigeration training units instead of the approved AC and commercial refrigeration training units and a charging machine. UNDP attributed the changes to the centre's needs and existing equipment and indicated that the domestic refrigeration training units funded under the Kigali HFC implementation plan (KIP) would be different models demonstrating low-GWP refrigerants, avoiding duplication. Noting the importance of AC and commercial refrigeration to remaining HCFC-22 servicing demand, the Secretariat sought clarification on equipment planned for the second tranche. UNDP indicated that selection would reflect the centres' needs, prioritize the approved list and avoid duplication. Equipment proposed for each centre includes split-AC and display-door training units and charging machines, but not condensing-unit or rack training units.

RAC certification

23. The existing certification scheme covers vocational school graduates, and stage III provides for its extension to practising technicians. UNDP indicated that the 500 technicians to be trained and certified under the second tranche will be selected through RAC enterprises, professional networks and vocational training centres, prioritizing installation and servicing technicians while considering geographical coverage and women's participation. Competency-based certification will comprise an initial assessment, training, theoretical and practical examinations covering refrigerant identification, recovery, leak detection, safe handling and the safe use of alternative refrigerants. Candidates who do not meet the requirements will receive further training and reassessment. UNDP indicated that, in view of the current security situation, a date for introducing mandatory certification will be set at a later stage, once the Ministry of Environment has established the regulatory requirements and timetable in coordination with the relevant authorities.

⁶ Paragraph 30 of document UNEP/OzL.Pro/ExCom/97/17

Awareness activities

24. The first tranche plan provided for one technical workshop on alternative technologies (US \$35,000). Owing to the security situation, it was replaced by 14 smaller sessions of 10 to 20 participants at three vocational training centres to limit travel, attended mainly by vocational trainees. The US \$169,000 requested for three workshops under the second tranche represents 27 per cent of tranche funding. UNDP explained that, subject to improved security, these would be national workshops of about 200 participants each, comprising technicians, vocational trainees, trainers and other stakeholders.

Gender policy implementation

25. In line with decisions 84/92(d) and 90/48(c), UNDP reported on the application of the policy in this area. Under the first tranche, five social media posts and one video used neutral language, represented women and men in a balanced way and avoided stereotypes. Women represented 14 of 41 trainers, 25 of 226 technical training participants and 29 of 91 importer outreach participants. UNDP indicated that an expert in this area has been recruited and a stage III action plan is being developed for finalization early in the second tranche. The plan will establish activities, indicators, targets and monitoring arrangements across all components and will be coordinated with that of stage I of the KIP. Second tranche activities will promote women's participation through targeted outreach for technician training and certification, balanced nominations of customs officers where feasible, and awareness materials featuring women RAC professionals. Criteria on women's participation are included in the terms of references of consultants and training providers, and sex-disaggregated data will be collected and reported. No numerical target has been set for women's participation in technician training under the second tranche. UNDP noted that the sector remains predominantly male and that Lebanon has no women's RAC association.

Sustainability of the HCFC phase-out and assessment of risks

26. The sustainability of Lebanon's HCFC phase-out is supported by the licensing and quota system, the ban on new HCFC-based installations and the expected cessation of HCFC-22 use in manufacturing by the end of 2027. Consumption in 2024 and 2025 remained below the maximum allowable consumption under the Agreement (18.39 and 17.84 ODP tonnes, respectively, by 0.07 and 0.08 ODP tonnes). With the maximum allowable consumption declining to 8.92 ODP tonnes in 2028, the country is focusing on reducing servicing demand through leak prevention, proper charging, and refrigerant recovery and recycling. Training will be sustained through the 41 national trainers, equipped vocational training centres and the extension of certification to practising technicians. Customs controls are strengthened by training, the ODS imports risk profile manual and coordination with the NOU and will be complemented by the updated National Cooling Action Plan and work on energy-efficiency labelling and minimum energy performance standards. Importers and major end-users have been informed of the reduction targets.

27. UNDP identified risks, including the security situation, economic instability, consumption at the quota ceiling, data inconsistencies and illegal trade, and these are being actively managed: the NOU is coordinating with Customs to review controls on controlled substances moving through free zones, although UNDP considers the associated risk to be low based on the assessment to date. Despite the narrow compliance margin and the security situation, the Secretariat considers that Lebanon's established licensing and quota system will keep HCFC consumption within the limit.

Conclusion

28. The verification reports confirmed that HCFC consumption reported under Article 7 for 2023 to 2025 was below the maximum allowable levels under the Agreement. Significant progress was made during the first tranche including the development of a compendium of ODS legislation and policies and an ODS imports risk profile manual, training of RAC trainers, equipping a new training centre and awareness activities for importers and vocational trainees, and the disbursement rate reached 92 per cent. UNDP will

continue working closely with the Government on timely implementation of the prohibition of manufacturing equipment using HCFC-22 and, with the third tranche request, will report on the progress made at the second tranche towards mandatory technician certification which is essential for sustained adoption of flammable alternatives.

RECOMMENDATION

29. The Fund Secretariat recommends that the Executive Committee:

- (a) Note the progress report on the implementation of the first tranche of stage III of the HCFC phase-out management plan (HPMP) for Lebanon;
- (b) Request UNDP to include, as part of the progress report on the implementation of the second tranche of stage III of the HPMP:
 - (i) An update on progress in implementing the recommendations contained in the verification reports for 2023 to 2025 submitted to the 99th meeting, including on the training of customs officers, the electronic management of imports, and the regular reconciliation of importer, customs and national ozone unit data;
 - (ii) An update on progress in establishing mandatory certification of refrigeration and air-conditioning technicians, including the regulatory requirements adopted and the timetable for implementation; and
- (c) Note that the Government of Lebanon will extend Ministerial Decision No. 51/1 to ban the use of HCFC-22 in all local manufacturing, including commercial refrigeration manufacturing, by 31 December 2027.

30. The Fund Secretariat further recommends blanket approval of the second tranche of stage III of the HPMP and the corresponding 2027–2029 tranche implementation plan for Lebanon 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 III, second tranche)	633,126	44,319	UNDP