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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninety-second Meeting  
Montreal, 29 May to 2 June 2023  
Item 9(c) of the provisional agenda<sup>1</sup>

**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 II, fourth tranche)

UNDP

<sup>1</sup> UNEP/OzL.Pro/ExCom/92/1

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Lebanon

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNDP (lead)	75 <sup>th</sup>	75% phase-out by 2024

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2021	26.09 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				0.53	25.03				25.56
HCFC-123									0.00
HCFC-141b									0.00

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	73.50	Starting point for sustained aggregate reductions:	73.50
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	61.21	Remaining:	12.32

(V) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNDP	ODS phase-out (ODP tonnes)	2.3	0.0	0.0	2.3
	Funding (US \$)	278,000	0	0	278,000

(VI) PROJECT DATA		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	
Montreal Protocol consumption limits (ODP tonnes)		66.15	66.15	66.15	66.15	66.15	47.78	47.78	47.78	47.78	23.88	n/a	
Maximum allowable consumption (ODP tonnes)		66.15	66.15	60.64	60.64	48.71	36.78	36.78	27.58	27.58	18.39	n/a	
Agreed funding (US \$)	UNDP	Project costs	2,410,000	0	0	1,114,000	0	420,462	0	0	259,364	0	4,203,826
	Support costs	168,700	0	0	77,980	0	29,432	0	0	18,155	0	294,268	
Funds approved by ExCom (US \$)	Project costs	2,410,000	0	0	1,114,000	0	420,462	0	0	0	0	3,944,462	
	Support costs	168,700	0	0	77,980	0	29,432	0	0	0	0	276,112	
Total funds requested for approval at this meeting (US \$)	Project costs	0	0	0	0	0	0	0	0	259,364	0	259,364	
	Support costs	0	0	0	0	0	0	0	0	18,155	0	18,155	

<b>Secretariat's recommendation:</b>	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 fourth and final tranche of stage II of the HCFC phase-out management plan (HPMP), in the amount of US \$259,364, plus agency support costs of US \$18,155.<sup>2</sup> The submission includes a progress report on the implementation of the third tranche, the verification report on HCFC consumption for 2020 to 2021 and the tranche implementation plan for 2023 to 2025.

### Report on HCFC consumption

2. The Government of Lebanon reported under country programme (CP) implementation report a consumption of 25.56 ODP tonnes of HCFC in 2022, which is 65 per cent below the HCFC baseline for compliance. The 2018-2022 HCFC consumption is shown in table 1.

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

HCFC	2018	2019	2020	2021	2022*	Baseline
<b>Metric tonnes</b>						
HCFC-22	562.5	517.01	526.18	474.28	464.70	653.55
HCFC-123	0.00	0.00	0.00	0.00	0.00	2.50
HCFC-141b	188.0	139.85	56.03	0.00	0.00	341.18
<b>Total (metric tonnes)</b>	<b>750.5</b>	<b>656.86</b>	<b>582.21</b>	<b>474.28</b>	<b>464.70</b>	<b>997.23</b>
<b>ODP tonnes</b>						
HCFC-22	30.94	28.44	28.94	26.09	25.56	35.95
HCFC-123	0.00	0.00	0.00	0.00	0.00	0.05
HCFC-141b	20.68	15.38	6.16	0.00	0.00	37.53
<b>Total (ODP tonnes)</b>	<b>51.62</b>	<b>43.82</b>	<b>35.10</b>	<b>26.09</b>	<b>25.56</b>	<b>73.53</b>

\* CP data

3. The consumption of HCFC-141b has been phased out due to the conversion of the foam manufacturing enterprises to isopentane and supported by a ban on the use of HCFC-141b in the foam sector enforced since 2021; no import licenses had been issued since the ban. In addition, the use of HCFC-141b in the refrigeration and air-conditioning (RAC) sector for flushing and cleaning purposes has been banned since 2019. The reduction of consumption of HCFC-22 is attributed to the implementation of the activities in the servicing sector and the conversion of the enterprises in the air-conditioning (AC) manufacturing sector to HFC-32 in 2019 and in 2021.

### *Country programme implementation report*

4. The Government of Lebanon reported HCFC sector consumption data under the 2021 country programme (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 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 2020 and 2021 was accurate (as shown in table 1 above). The verification also concluded that Lebanon was in compliance with consumption targets for 2020 and 2021 and that implementation of activities including technical assistance, policy and regulatory actions were substantively carried out. The report recommended annual to biannual training for customs officers, that an online protocol for imports be developed, and that all customs ports be provided with refrigerant identifiers. UNDP

<sup>2</sup> As per the letter of 20 February 2023 from the Ministry of Environment of Lebanon to UNDP.

confirmed that the recommendations in the verification report will be addressed as appropriate during the implementation of the fourth tranche.

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

#### *Legal framework*

6. A ban on the use of HCFC-141b in the RAC sector for flushing and cleaning purposes has been in force since 2019, and for use in manufacturing sandwich panels and insulation for solar and electric water heaters since 2021. A ban on the use of HCFCs in the AC manufacturing sector is expected to be in place by 2025. Amendments to the ODS licensing system have been made in the areas related to the distribution of quotas among importers, enforcement of procedures for issuing licences, the use of the harmonized system (HS) codes for HCFCs and blends, and to include HFCs in the licensing system. Starting 2023, importers will require a license to import HFCs; starting 2024, import quotas will be set based on past imports of each registered importer as previously done with HCFCs. The Government of Lebanon ratified the Kigali Amendment in February 2020.

7. The national ozone unit (NOU) has continued to support customs in daily activities for better enforcement and monitoring of ODS trade. In 2020 and 2021, the NOU held three meetings for a total of 27 participants from customs ports and three meetings for a total of 72 registered importers, to discuss ODS controls and phase-out, ODS identification, illegal trade, and safety measures when handling ODS.

#### *Polyurethane foam manufacturing*

8. The conversion of four foam enterprises to isopentane technology, was successfully completed as of January 2019 under the second tranche. The remaining conversions of the two individual enterprises Spec and Prometal were completed in May 2021, and those for the 11 smaller manufacturers of sandwich panels for solar and electric water heaters to HFO-1233zd polyol blend technology were completed in June 2021. The total phase-out achieved from the conversions in the foam sector amounted to 265 mt (29.15 ODP tonnes) of HCFC-141b.

#### *Room AC manufacturing*

9. The conversion of the remaining two small commercial AC manufacturers to HFC-32 including the conversion of the insulation foam component from HCFC-141b to HFO technology was completed in May 2021. With these, the total phase-out achieved in the five AC manufacturers, amounted to 59.63 mt (3.28 ODP tonnes) of HCFC-22 and 16.85 mt (1.85 ODP tonnes) of HCFC-141b.

#### *Refrigeration servicing sector*

10. Two training centres were supported with improved infrastructure and servicing equipment and tools were provided to three training centers which are now operating according to international standards. The certification scheme that had been put in place for students graduating from the vocational schools continues to support building capacity of new technicians and is supported by a new training curriculum; three workshops were conducted for 75 RAC teachers and students and a RAC sector servicing technical guidebook was developed to support the technicians, teachers, and students and 400 copies were distributed. Awareness-raising and capacity building activities were undertaken which included technical and thematic workshops on HCFC alternatives for end-users, importers, and stakeholders in the servicing sector.

*Project implementation and monitoring*

11. Of the US \$114,003 approved for project implementation and monitoring US \$72,000 was disbursed on development of a strategic plan targeting the RAC servicing sector and to collect data on HCFC consumption in the RAC servicing sector. The strategic plan covers the period from 2022 to 2025.

Level of fund disbursement

12. As of April 2023, of the US \$3,944,462 approved so far, US \$3,742,495 had been disbursed, as shown in table 2. The balance of US \$201,967 will be disbursed in 2023.

**Table 2. Financial report of stage II of the HPMP for Lebanon (US \$)**

Funding tranche	Funds approved	Funds disbursed	Disbursement rate (%)	Fund balance
First	2,410,000	2,410,000	100	0
Second	1,114,000	1,114,000	100	0
Third	420,462	218,495	52	201,967
<b>Total</b>	<b>3,944,462</b>	<b>3,742,495</b>	<b>95</b>	<b>201,967</b>

Implementation plan for the fourth and final tranche of stage II of the HCFC phase-out management plan

13. The following activities will be implemented between June 2023 and December 2025:
- (a) Capacity building for regulations enforcement: three workshops will be held for customs officers to facilitate the enforcement of regulations on imports and exports of ODS and their alternatives (US \$9,000, plus funds from the previous tranche);
  - (b) RAC servicing sector training and technical information outreach: three trainers will be trained in Germany on good servicing practices including commercial and industrial applications using low-GWP refrigerants and subsequent training will be held for 400 RAC technicians (US \$126,400, plus funds from the previous tranche);
  - (c) Establishment of a fourth RAC training centre: One vocational school will be upgraded by providing with all the necessary teaching equipment<sup>3</sup> for RAC technicians and students (US \$90,000, plus funds from the previous tranche);
  - (d) Training and certification of 300 RAC technicians through the new certification scheme for those graduating from the vocational schools (funds from the previous tranche); and
  - (e) Project monitoring (US \$33,964, plus funds from the previous tranche): update of the strategic plan targeting the RAC servicing sector, two public awareness workshops to be organized on the progress of implementation of the HPMP and new alternatives to HCFCs, and monitoring and supervision of HPMP project implementation including meetings and logistics.

<sup>3</sup> Equipment will include: two refrigeration cycle units, a reverse cycle refrigeration and AC unit, three refrigeration tool sets, refrigerant recovery machine, filter drier, 12.5 kg cylinder, two valve aluminum manifold, power supply, spare parts, and consumables, reclaim operating unit, and a recycling and recovery unit for mobile AC.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

#### Report on HCFC consumption

##### *Verification report*

14. UNDP submitted a verification report which covered only 2020 and 2021. UNDP indicated that the preparation of the verification report for 2022 is ongoing and the Government of Lebanon is committed to completing the verification exercise as soon as possible and resubmitting by the end of June 2023 a revised verification report pursuant to in decision 72/19(a)<sup>4</sup> to include data for 2022.

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

##### *Legal framework*

15. The Government of Lebanon has already issued HCFC import quotas for 2023 at 24.31 ODP tonnes, which is lower than the Montreal Protocol control targets and the country's target under the Agreement.

##### *Refrigeration servicing sector*

16. UNDP clarified that most training activities for the refrigeration servicing sector had been delayed due to the continued political and economic instability in the country. While recovery from the COVID-19 pandemic was slowly happening, the explosion at the port of Beirut in 2020 directly affected the NOU which had delayed the implementation of training activities. In addition, all vocational schools had remained closed and only reopened in March 2023. Power supply is only intermittently available, which is posing further challenges to completing the training activities. In clarifying how these activities could be completed noting these constraints, UNDP emphasized that the Government is committed to completing the remaining activities under the tranche at the same time when implementing the new activities under the fourth tranche and further noted that vocational schools have recently reopened.

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

17. In clarifying the activity to hold training for trainers in Germany, UNDP noted that this is crucial to the success of the overall training programme in the country to support capacity development for these trainers who will in turn be able to provide more effective training to technicians and other trainers. The international training will allow trainers to gain up to date knowledge on new and emerging low-GWP technologies especially in the commercial refrigeration and industrial AC which are important applications in the country. This training will also result in better application of the new training curriculum in all vocational schools.

18. With regard to the new RAC training centre proposed to be established in addition to the three centres already provided with equipment; UNDP clarified that this was a need expressed by the Lebanon Ministry of Higher Education to have a training centre in a vocational school in four different regions of the country that offered refrigeration courses. This will give access not only to service technicians but also students taking refrigeration courses to new equipment and would facilitate the implementation of the new

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<sup>4</sup> Decision 72/19(a): encourages lead bilateral and implementing agencies submitting HCFC phase-out management plan tranche requests to the first meeting of the year to include a verification report of national consumption targets for the year immediately preceding the year during which the tranche was submitted.

training curriculum. It is expected that this would result in graduates with a strong foundation in good refrigeration servicing practices and contributing to the enhancement of professional capacities in the service sector.

#### Gender policy implementation<sup>5</sup>

19. In line with decisions 84/92(d) and 90/48(c), efforts have been made to create a gender-inclusive environment when organizing events and activities under stage II of the HPMP. Female importers, customs staff, and trainers at vocational schools were actively engaged in relevant activities and workshops. Training and awareness campaigns were conducted to develop staff competency and awareness on gender mainstreaming and discussions on gender issues were held during the thematic workshops to share experiences and lessons learned on gender mainstreaming.

#### Completion of stage II of the HCFC phase-out management plan

20. UNDP has confirmed that stage II for Lebanon will be completed on 31 December 2025 as stipulated in paragraph 14 of the revised Agreement approved by the Executive Committee at the 86<sup>th</sup> meeting.

#### Sustainability of the HCFC phase-out and assessment of risks

21. The sustainability of the phase-out of HCFCs in Lebanon is supported by strengthened controls on the import of HCFCs and HCFC-containing equipment and the ban on imports of HCFC-141b. The country is also planning to put in place a ban on the use of HCFCs for the manufacture of AC equipment by 2025. The Government will continue to enforce and improve the HCFC licensing and quota systems to ensure that HCFCs are imported only for servicing until the complete phase-out is achieved in 2030. Despite the delays in the implementation of the training activities, the Government is committed to ensuring that the remaining activities are completed as well as the new activities for the tranche. The Secretariat noted that the risks associated with political and economic instability in the country have caused delays in implementing activities during the third tranche but recognized that the NOU is doing its best to facilitate implementation despite these risks being outside their control. The Government of Lebanon will submit stage III of the HPMP to a future meeting to support the complete phase-out of HCFCs.

#### Conclusion

22. The HCFC consumption reported in CP data for 2022 was 65 per cent below the HCFC baseline for compliance and 7 per cent below the country's maximum eligible consumption under its Agreement with the Executive Committee. The Government continues to implement its licensing and quota systems for monitoring and controlling HCFCs and is providing training to customs officers and registered importers on regulations on the import and export of ODS and their alternatives, and the updated curriculum and training activities planned for refrigeration technicians will enhance capacity in servicing equipment with HCFC-free alternatives. The verification report confirmed the effective implementation of the ODS licensing system, and the Government has committed to implementing the recommendations of the verification as part of the implementation of the fourth tranche of the HPMP and submitting an updated verification report to include 2022 consumption data by the end of June 2023. A sufficient level of implementation of the third tranche of the HPMP has been achieved, and plans are in place to reschedule delayed activities and to implement them in parallel with the activities under the fourth tranche. UNDP met

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<sup>5</sup> In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.

the disbursement threshold for tranches with a 52 per cent disbursement rate for the previous tranche and has disbursed 95 per cent of the overall funds approved for stage II thus far.

## RECOMMENDATION

23. The Fund Secretariat recommends that the Executive Committee:

- (a) Note the progress report on the implementation of the third tranche of stage II of the HCFC phase-out management plan (HPMP) for Lebanon; and
- (b) Request the Government of Lebanon and UNDP to submit, on a yearly basis, progress reports on the implementation of the work programme associated with the final tranche through completion of the project, verification reports until approval of stage III, and the project completion report to the first meeting of the Executive Committee in 2026.

24. The Fund Secretariat further recommends blanket approval of the fourth and final tranche of stage II of the HPMP for Lebanon and the corresponding 2023-2025 tranche implementation plan at the funding level shown in the table below, on the understanding that:

- (a) UNDP will submit an updated verification report to include 2022 consumption data by the end of June 2023; and
- (b) The recommendations included in the verification report would be addressed during the implementation of the fourth and final tranche of stage II of the HPMP and that the actions implemented towards that end would be included in the progress report for stage II of the HPMP for Lebanon to be submitted with the request for stage III of the HPMP.

	<b>Project title</b>	<b>Project funding (US \$)</b>	<b>Support costs (US \$)</b>	<b>Implementing agency</b>
(a)	HCFC phase-out management plan (stage II, fourth tranche)	259,364	18,155	UNDP