Docusign Envelope ID: 718B8E85-7B08-4E10-98D6-02930F72CAA7

United Nations Development Programme

PROJECT DOCUMENT

Lebanon - Addendum 1

Project Title: Digital monitoring and management tools to enhance energy efficiency and reduce emission of green-house gases in the cooling and cold chain sector (outputs 1 and 2) and HCFC phase-out management plan Stage III for compliance with the 2024-2030 control targets of the annex-c, group-i substances of the montreal protocol on substances that deplete the ozone layer (output 3).

Project Number: 01002405 **Implementing Partner: UNDP (DIM)**

Start Date: **01 May 2024**	End Date: **09 April 2026**	**Outputs 1 and 2** **Tasks 1 and 2**	Award ID **1251805**
Start Date: **01 August 2024**	End Date: **31 December 2030**	**Output 3** **Tasks 3, 4, and 5**	Award ID (T1) **1297927**

Brief Description

The current project covers two complementary interventions launched consecutively and implemented each into separate output(s): Cooling and cold chain sector digital tools (outputs 1 and 2), and phasing out HCFC stage III (output 3):

Outputs 1 and 2: Cooling provided by air conditioning and refrigeration systems is essential for sustainable development. However, cooling also generates a serious carbon footprint, directly through the emissions of greenhouse gas refrigerants and indirectly due to the consumption of electricity generated using fossil fuels. Cooling is currently estimated to consume almost 20 percent of the world's electricity consumption in buildings. Energy demand for space cooling is expected to triple by 2050 fueled by rising temperatures and economic prosperity. If cooling efficiency is not improved significantly, an increase in greenhouse gas emissions from energy consumption and refrigerants will occur and warm the planet.

Digital tools and Internet of Things (IoT) provide valuable insights, automation, and control capabilities that can significantly enhance the energy efficiency of cooling systems, reducing emission of green-house gases, and identifying energy saving opportunities. By implementing smart cooling strategies and smart cold chain infrastructure, a city can reduce the urban heat island effect, minimize the amount of electricity consumed, which in turn reduces the use of fossil fuels and pressure on the power grid in the peak time.

Despite refrigeration and air conditioning accounting for a significant share of global energy consumption, the application of digitalization to these areas has so far received less attention than for other household appliances and mobility devices. Therefore, it is important to conduct demonstration projects to accumulate experiences for replication in more countries.

This project will research and identify digital tools which can be used to monitor the use of energy. Based on this information, it will pilot the use of such digital tools for the monitoring and development of strategies to minimize energy use.

Output 3: Hydrochlorofluorocarbons (HCFCs) are classified as controlled substances under Annex-C Group-I of the Montreal Protocol and are subject to the adjusted control schedule for Article-5 countries; to freeze the consumption at baseline levels from 2013 and reduction of 10% from baseline levels from 2015. for Article 5 countries, the first control is the freeze on production and consumption of HCFCs from 01 January 2013, at the Baseline Level (average of 2009 and 2010 consumption levels). The second control step is the reduction of 10% from the Baseline Levels on January 1, 2015. Subsequent control steps are 35% reduction by 2020, 67.5% by 2025, 97.5% by 2030 and complete phase out from January 1 2040.

HCFCs are used in Lebanon in various industry sectors, such as Air Conditioning, Refrigeration, and Foams. The predominant HCFC used is HCFC-22 mainly in the Refrigeration and Air Conditioning Sectors. HCFC consumption in Lebanon increased from 413 metric tons in 2008 to 941 metric tons in 2014, indicating an average annual growth rate of about 15%. The main reason for this growth is the sustained economic development and resulting increase in demand for consumer, commercial and industrial products that use

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HCFCs.

In order to meet the reduction targets for the years 2020 and beyond, the industry, consumers and government will need to make tremendous efforts. This will involve phasing out HCFC use in major manufacturing sectors as well as the servicing sector and reducing dependence on HCFCs and controlling and reducing HCFC use wherever possible in the servicing sector. The main constraints for transitioning from HCFCs to alternative environment-friendly substitutes is the dependable and economic availability of benign and sustainable substitutes and the limited time available for implementing phase-out actions for compliance. Extraordinary efforts will be needed to curb the momentum of inevitable growth in HCFC consumption in sectors, mainly the Servicing Sector. Besides, this phase-out has to be achieved with minimum or zero phase-in of high GWP substances such as HFCs/HFC blends and energy efficient solutions.

After the completion of stages I and II, Lebanon received funding for the implementation of stage III of the HCFC phase-out management plan (HPMP). The implementation of stage III of the HPMP will phase out the remaining consumption of 18.39 ODP tonnes of HCFCs used in the RAC servicing sector in order for Lebanon to meet the Montreal Protocol compliance target of 100 per cent reduction by 2030. The current project document reflects HPMP Stage III in its different tranches.

Contributing Outcome (UNSDCF, CPD):

UNSDCF outcome 3: Strengthened stabilization and green recovery to reduce vulnerabilities and environmental risks (SDG indicator: 12.1.1. Number of countries developing, adopting or implementing policy instruments aimed at supporting the shift to sustainable consumption and production)

CPD Outcome 3: Strengthened stabilization and green recovery to reduce vulnerabilities and environmental risks, including through enhanced competitiveness and business environment of sustainability-oriented MSMEs and high potential green productive sector values chains. CPD 3.1 (IRRF output 4.1) Natural resources protected and managed to enhance sustainable productivity and livelihoods.

CPD output indicator: Indicator 3.1.4. Yearly consumption of ozone depleting substances.

Output 1: GEN2; Output 2: GEN3; Output 3: Gen 1

Total resources required:	Outputs 1 & 2: USD 414,000 Output 3:USD 1,182,700	
Total resources allocated:		
	UNDP TRAC:	
	MLF MP:	USD 1,182,700
	Tranche 1	USD 414,824
	Tranche 2	USD 633,126
	Tranche 3	USD 134,750
	Funding Windows:	USD 198,000
	In-Kind:	
Unfunded:	216,000 (outputs 1 & 2)	

Agreed by:

UNDP
Ms. Blerta Aliko Resident Representative Date: 30-Aug-2024 DocuSigned by: Blerta Aliko DB86602D22CA4B8...

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BACKGROUND FOR ADDENDUM

In Q2 2024, UNDP initiated a new project related to "Demonstrating digital monitoring and management tools to enhance energy efficiency and reduce emission of green-house gases in the space cooling and cold chain sector", while the approval of HMPM stage III was approved in September 2023. The HPMP stage III initiative reflects the core intervention in the refrigeration sector (RAC), while the Digital Monitoring and Management Tools is a complementary regional initiative.

Since the Digital Monitoring and Management Tools initiative needed to be initiated in May 2024, while the prodoc and authorisation for HPMP III were still in process, a project ID (01002405) and project document were created at the time with the intension of including the HPMP Stage III in due time.

Now that the authorisation for HPMP Stage III is issued, the current addendum is to include its activities withing the same project ID 01002405, noting that outputs 1 and 2 are related to the Digital Monitoring and Management Tools, whereas output 3 is related to HPMP Stage III. Each funding will have a separate award ID for better financial management and as a requirement in Quantum.

Merging the two initiative would ensure efficiency and optimisation of resources especially that they are both implemented by the same project management unit.

I. DEVELOPMENT CHALLENGE

Since the 90's Lebanon joined the international community in its action to remediate to the depletion of the ozone layer. Accordingly, the Government of Lebanon ratified the international conventions and subsequently received funds to take action in phasing-out the Ozone Depleting Substances (ODSs). Below is the background and history of the activities:

ODS phase-out activities in Lebanon

The dates of ratification by Lebanon of the Montreal Protocol and its amendments are listed in the table below:

Table 1: Dates of Ratification of Montreal Protocol and its Amendments

Agreement	Ratification	Entry into Force
Vienna Convention	March 30, 1993	June 28, 1993
Montreal Protocol	March 30, 1993	June 28, 1993
London Amendment	March 31, 1993	June 29, 1993
Copenhagen Amendment	July 31, 2000	July 31, 2000
Montreal Amendment	July 31, 2000	July 31, 2000
Beijing Amendment	November 21, 2008	November 21, 2008
Kigali Amendment	March 29, 2019	August 01, 2019

Source: Ozone Secretariat

Lebanon's Country Programme reflecting the national strategy and action plan for controlling the use of ozone depleting substances was prepared with the assistance of the National Working Committee on Ozone Depleting Substances established in 1994 at the Ministry of Environment was approved at the 17th Meeting of the Executive Committee of the Multilateral Fund in 1995. The Country Programme prioritized ODS phase-out activities in the main ODS consuming sectors, through technology transfer investments, technical assistance, capacity building, and training.

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All remaining CFC phase-out actions were addressed through the National Phase-out Management Plan for Annex-A, Group-I Substances (CFCs) in Lebanon (NPMP), which was approved at the 44th ExCom Meeting in November 2004 as a performance-based agreement with annual consumption and phase-out targets and complete phase-out of all remaining consumption of Annex-A, Group-I Substances (CFCs) in Lebanon before 01 January 2010. The country has also completely phased-out consumption of Methyl Bromide by the year 2015.

Accelerated HCFC Phase-out

HCFCs, which have Ozone Depleting Potential (ODP) up to 15% of that of CFCs, are also classified as controlled substances under Annex-C, Group-I of the Montreal Protocol.

HCFCs therefore, have use restrictions and would eventually have to be phased-out. Initially for developing countries, the scheduled phase-out date for HCFCs was 01 January 2040 with an interim control measure of freezing HCFC production and consumption at 2015 levels, from 01 January 2016.

Recognizing the environmental benefits of reducing HCFC production and consumption earlier than the previous control schedule, the XIXth Meeting of the Parties to the Montreal Protocol in September 2007, through its Decision XIX/6, accelerated the phase-out schedule for HCFCs by 10 years. For Article 5 countries, the first control is the freeze on production and consumption of HCFCs from 01 January 2013, at the Baseline Level (average of 2009 and 2010 consumption levels). The second control step is the reduction of 10% from the Baseline Levels on January 1, 2015. Subsequent control steps are 35% reduction by 2020, 67.5% by 2025, 97.5% by 2030 and complete phase out from January 1 2040. The decision confirmed stable and sufficient funding for Article-5 countries to meet these new obligations.

The phase-out strategy implemented in stage I to achieve for compliance with the 2013 and 2015 targeted the manufacturing sector, prioritizing applications and sub-sectors where mature and relatively benign technologies were available, assisting financially sound and viable enterprises with large consumption, which ensured implement maximum impact.

Stage I included foam sector plan where the phase-out of consumption of 137 metric tonnes of HCFC-141b by one foam manufacturing enterprise (Dalal Steel Industries) was successfully accomplished. Under the air-conditioning sector plan, 90 mt of HCFC-22 were phased out through conversion of one manufacturer of residential AC systems (Lematic). Stage I of the HPMP was completed by December 2018, as stipulated in the Agreement between the Government of Lebanon and the Executive Committee

The phase-out strategy implemented in Stage II for Compliance with the Post-2015 control targets for Annex-C, Group-1 substances in Lebanon had its main focus on the manufacturing sector, emphasizing applications and sub-sectors with readily available and environmentally friendly technologies. Financially stable and viable enterprises with significant consumption were prioritized to maximize the project's impact. The successful implementation of the HCFC Phase-out Management Plan (Stage II) for Lebanon will result in the reduction of HCFC consumption levels to 18.39 ODP tons by the year 2024. To meet this objective, actions were undertaken to ensure a minimum phase-out of 55.5 ODP tons (based on the baseline level of 73.50 ODP Tons) of HCFC consumption over a span of about ten years. This phase-out was addressed in this HPMP (Stage II) through technology conversions in:

i. **Discontinuous foam sandwich panels manufacturing enterprises** (*6 medium to small foam Enterprises*: Mezher Industries, Awkal & Saydah, Kilzi Industries, Profoam Pack, Prometal and Special Engingeering Company (SPEC))),
ii. **Solar and electric water heaters manufacturers** (*10 Enterprises):* ElectroMechanic Industrial & Commercial Establishment (Ezzeddine), Farhat Est Solar Energy, GHADDAR TRADE AND INDUSTRY SARL, Itani for Industry and commerce sarl, Kmeid for Industry and Trade Co, Mawared & Construction Co sarl, NAFCO INOX SAL, Saadeddine General Trading Est., Sunshine Co. sarl, Tfaily Solar Energy Company)),

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iii. **Air-conditioning units manufacturers** (*5 Enterprises*, including 2 consuming HCFC 141b: UNIC, Industrial and Commercial Refrigeration, CGI Halwani, FrigoLiban and Iceberg)),

The fourth tranche of the HPMP Stage II is currently under the implementation which was approved at the 92nd Meeting of the ExCom in May 2023. Stage II of the HPMP will be completed by 31 December 2025, as stipulated in the Agreement between the Government of Lebanon and the Executive Committee.

The following table describes the fund management of the approved Stages from 2011 to 2030:

Stages	Duration	Multilateral Fund funding (approved)	Multilateral Fund funding (disbursed)
HPMP Stage I	2011-2017	$ 2,495,109	$ 2,495,109
HPMP Stage II	2016-2025	$ 4,203,836	$ 4,203,836
HPMP Stage III	2024-2030	$ 1,182,700	$ 1,182,700

HPMP Stage-III Preparation: Lebanon received approval at the 92nd Executive Committee meeting in June 2023, with a budget of $60,000, to develop a comprehensive HCFC Phase-Out Management Plan (HPMP) Stage-III for the country. This plan aims to meet the 2025 and 2030 compliance targets according to the Montreal Protocol's accelerated phase-out schedule for HCFCs. The funding was allocated for a survey of HCFC consumption in the manufacturing and servicing sectors, uncovering current trends, types of equipment using HCFCs, and offering insights into HCFC usage across different industries. The findings highlighted the necessity for proactive measures to reduce environmental impacts while ensuring the continuation of essential operations. The project is set to conclude in December 2024. The HCFC Phase-Out Management Plan (HPMP) Stage-III was submitted and approved at the 93rd Executive Committee. The current addendum to the project document is prepared to implement it.

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II. STRATEGY

The overarching strategy will focus on the HCFC phase-out, however the Government of Lebanon is keen to promote ozone-friendly, climate-friendly and energy-efficient technologies to the extent possible within the current guidelines and available funding under the Stage III. The strategy will also support, at the possible extent given the MLF guidelines, to raise awareness of stakeholders on the Kigali Amendment and its future obligations and the relationship with the reduction of HCFC.

The Government of Lebanon designated UNDP to be the implementing agency for the HCFC phase-out management plan (HPMP, Stage-III) in Lebanon.

Stage III would be the last phase of the HPMP, to be implemented during the period from 2024 to 2030, where Lebanon would have to achieve the 2025 and 2030 compliance targets (full phase-out) in the consumption sector as per the accelerated phase-out schedule of the Montreal Protocol for HCFCs.

Table 2: Starting Point and Eligible Reductions of HCFCs for Lebanon

Substance	HCFC-22	HCFC-141b	HCFC-123	Total
Starting point	35.95	37.53	0.05	73.53
Reduction in stage I	9.41	15.10	0	24.51
Reduction in stage II	14.22	22.43	0.05	36.70
Reduction in stage III	18.39	0	0	18.39

Table 3: Targets for HCFCs phase-out as per revised Agreement at 86th ExCom (stage II)

Row	Particulars	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	66.15	66.15	66.15	66.15	66.15	47.78	47.78	47.78	47.78	23.88
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	66.15	66.15	60.64	60.64	48.71	36.78	36.78	27.58	27.58	18.39

Based on current remaining eligible amount of 12.32 ODP t (224 metric tones), after deducting 11.07 mt (av. 2020-2022) related to use for manufacturing sector (at the cost of USD 195,200), the servicing sector plan will reduce the quantity of 212.93 mt at a total cost of US $1,022,064 (excluding the agencies support costs), towards a series of activities driving to support the national servicing sector in improving its infrastructure and technical capacities.

However, is noted that Lebanon will, in reality, reduce 18.39 ODP t. of maximum allowable consumption (334.36 mt) after 2024, which, by deducting 11.07 mt (av. 2020-2022) related with the use for manufacturing sector (at the cost of USD 195,200), the servicing sector plan will reduce the quantity of 323.29 mt of HCFC-22. If the limitations of the Agreement's row 4.1.3 (table 16.1) were not to be applied to this servicing sector real (eligible) demand, the real cost for the phase-out in the servicing sector should be US $1,551,809 (based on the threshold of USD 4.80/kg).

The overarching strategy of stage III of the HPMP was developed following the Montreal Protocol phase-out schedule and the relevant provisions, decisions, and guidelines of the ExCom. In addition, the strategy is based on the following guiding principles:

a) It is based on the national context, priorities, national policies and is country-driven.
b) It demonstrates strengthened and proactive partnership between the Government and industry.

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c) It takes a balanced approach that will ensure the phase-out of HCFCs by 2030 with the goal to avoid, as much as possible and given the potential commercial and technical challenges, the transition from HCFCs to high GWP HFCs (at least HFCs with GWP higher than the ones from HCFCs replaced) in the servicing sector.
d) It integrates and build upon existing infrastructures established under stages I and II; and
e) It is meant to be dynamic and evolving and open for revisions and adaptation as necessary in response to evolving situations.

Table 4: Targets for HCFCs phase-out as per revised Agreement at 92nd ExCom (stage III)

Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030
1.1	Montreal Protocol consumption Limits (ODP tonnes)	47.78	47.78	23.88	23.88	23.88	23.88	23.88	0
1.2	Maximum allowable consumption (ODP tonnes)	27.58	18.39	17.84	17.84	17.84	8.92	8.92	0

The cost-structure to implement the Stage III of the HPMP for Lebanon is based on relevant ExCom decisions, in which the average last three (3) years of consumption is used to calculate the cost-effectiveness of manufacturing sector the project. The Government of Lebanon believes that such base of calculation better reflects the real needs of the country since its market demand and end-user demands may be temporality hindered by the factors discussed in paragraph 39 of this document.

Stage III overarching strategy will build on the strategy and foundations established in stages I and II and proposes two (2) sector plans:

(a) Refrigeration Manufacturing Sector Plan: One (1) (remaining) eligible company that manufactures condensing units for commercial refrigeration applications will be converted to low-GWP alternatives (R-32).

(b) RAC Servicing Sector Plan.

Stage III will continue to support the Vocational Training Centers to be equipped with basic servicing tools required to apply Good Practices (and refrigerant containment) and then expand the training and certification schemes to familiarize the technicians with such principles and real-life application of such good practices. In addition to continued raising awareness coupled with the improved knowledge of diverse sectors and will continue to promote low-GWP alternatives. These will also prioritize sensitization around the recovery and reclaim as means to reduce demand for new refrigerants.

Simultaneously, new regulations will be implemented, including full sector bans on the use of HCFC-22, after conversion of the last national eligible company, by December 2026 and continued improvement of Licensing and Quota System will be applied. As well, continued capacity building to the Customs (given the high rotation of Officers) will be promoted under the Stage III.

Theory of Change:

If targeted workshops, training sessions, and certification schemes for Refrigeration and Air-Conditioning (RAC) technicians and customs officials could be implemented, **then** the technical capacities and institutional capabilities for managing and enforcing HCFC phase-out will be significantly strengthened.

If strict regulations and licensing systems for the import and export of HCFCs continue to be enforced, and sector-specific bans implemented, **then** illegal trade will be minimized, and the adoption of environmentally friendly alternatives will be accelerated.

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If the technical and institutional capacities are enhanced and regulatory measures continue to be enforced, **then** Lebanon will successfully phase out 18.39 ODP tonnes of HCFCs, ensuring sustained compliance with the Montreal Protocol and supporting global environmental sustainability.

Impact

1. **Environmental:**
    - **Reduction of Ozone-Depleting Substances (ODS):**
        - The primary environmental impact of the HCFC Phase-Out Management Plan (HPMP) Stage III is the significant reduction of ODS. By phasing out HCFCs, which are known to deplete the ozone layer, the plan will lead to Lebanon's compliance with Montreal Protocol.
    - **Global Efforts and Compliance:**
        - By adhering to the Montreal Protocol, Lebanon is contributing to global efforts aimed at protecting the ozone layer. Compliance with this protocol not only benefits Lebanon but also supports global environmental sustainability initiatives.
2. **Economic and Social:**
    - **Technical Capacity Enhancement:**
        - HPMP Stage III includes significant investments in training and capacity building for the servicing sector. This will lead to improved technical capacities among Refrigeration and Air-Conditioning (RAC) technicians and service providers, ensuring better maintenance and servicing of (RAC) equipment. Enhanced skills and knowledge will translate into more efficient and effective servicing practices, reducing equipment downtime and improving overall system performance.
3. **Capacity Building:**
    - **Institutional and Technical Strengthening:**
        - The plan emphasizes the importance of strengthening both institutional and technical capacities. This will be achieved through a series of workshops, training sessions, and the establishment of certification schemes. These initiatives will equip customs and technicians with the necessary skills and knowledge to manage and implement HCFC phase-out strategies effectively.
    - **Creation of a Skilled Workforce:**
        - A key component of capacity building is creating a new generation of skilled technicians. This will not only address the current shortage of qualified personnel but also ensure a sustainable workforce capable of supporting the long-term goals of the HCFC phase-out plan.
4. **Regulatory Enhancements:**
    - **Stricter Regulations and Licensing Systems:**
        - To control the import and export of HCFCs, the plan includes the implementation of stricter regulations and licensing systems. This will help prevent illegal trade and ensure that only authorized entities (customs & Ministry of Environment) can handle imports of HCFCs.
    - **Sector-Specific Bans:**
        - The plan also involves the introduction of bans on the use of certain HCFCs in specific RAC sectors. These targeted bans will expedite the phase-out process and encourage the adoption of environmentally friendly alternatives.

Goals

- **100% Reduction of HCFC Consumption by 2030:**
    - The ultimate goal of the HPMP Stage III is to achieve a complete phase-out of HCFC consumption by 2030. This aligns with the Montreal Protocol's accelerated phase-out schedule.
- **Compliance with 2024 and 2030 Targets:**
    - The plan aims to meet the control targets set for 2024 and 2030 under Annex-C Group-I substances of the Montreal Protocol. These targets are critical milestones in the global effort to eliminate ODS.

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Results

- **Phase-Out of 18.39 ODP Tonnes of HCFCs:**
  - The plan is projected to phase out a total of 18.39 ODP tonnes of HCFCs, with a particular focus on HCFC-22. This will be achieved through a combination of regulatory measures, capacity building, and support for industry conversion.
- **Conversion of Manufacturing and Servicing Sectors:**
  - The remaining manufacturing sectors will be converted to low-GWP alternatives. Additionally, the plan will address the servicing sector's demand for HCFC-22, ensuring that all sectors are aligned with the phase-out goals.

The theory of change for the HCFC Phase-Out Management Plan – Stage III in Lebanon is a comprehensive approach that integrates environmental, economic, social, and regulatory strategies to achieve sustainable development goals. By focusing on capacity building and regulatory enhancements, the plan aims to create a robust framework for the complete phase-out of HCFCs by 2030. The anticipated results include significant environmental benefits, such as the reduction of ODS, and socioeconomic improvements, including enhanced technical capacities and support for Vocational Schools and service workshops. The successful implementation of this plan will not only ensure compliance with international protocols but also contribute to global efforts to protect the ozone layer and mitigate climate change impacts.
e impacts.

Sector Analysis and Phase-out Strategy

The preparation of stage I has undertaken a detailed assessment of national consumption vis-à-vis to the sector use at manufacturing level. At the time the HCFC Consumption Baseline for Lebanon (average of 2009 and 2010 consumption) was established at 73.5 ODP tonnes. In addition, for the preparation of its stage II, Lebanon also updated the sector distribution of HCFC consumption disaggregated by substance for the year 2016, following the Country Programme Report. For the Stage III, similarly, the Government of Lebanon has carried out a detailed survey to update the sector demand of HCFCs.

Stage III proposed Phase-out Strategy

The phase-out strategy implemented in stage III for compliance with the 2024-2030 control targets of the annex-c, group-i substances of the montreal protocol on substances that deplete the ozone layer would be the last phase of the HPMP, to be implemented during the period from 2024 to 2030, where Lebanon would have to achieve the 2025 and 2030 compliance targets (full phase-out) in the consumption sector as per the accelerated phase-out schedule of the Montreal Protocol for HCFCs.
The overarching strategy of stage III of the HPMP was then developed following the Montreal Protocol phase-out schedule and the relevant provisions, decisions, and guidelines of the ExCom as per the below components:

Regulatory framework: development of a compendium of ODS phase-out legislation and policies to support stakeholders; issuance of bans on HCFC-22 in local manufacturing, and on the import and establishment of new installations from 31 December 2025;
Customs officers capacity building: regular and refresher trainings for customs officers on ODS control and update of training materials and development of an ODS imports risk profile manual;
Training, certification and equipment: Capacity building of RAC technicians on good servicing practices and reducing leakages through a train the trainers programme for a total of 15 RAC trainers and training and certification for a total of 1500 technicians; equipping one additional vocational training centre with standard training equipment and tools (including refrigeration cycle trainer equipment; basic split-AC trainer unit; condensing trainer unit; commercial refrigeration rack trainer unit and display door unit; gauge manifold set; leak detectors; weight scale; small-scale charging machine; refrigerant recovery and recycle unit; vacuum pump; digital vacuum gauge; thermometer and cylinder),
Gender-sensitive awareness raising to sustain phase-out: continue and expand awareness campaigns about HCFCs bans, controlled uses and leakage reduction; campaign targeting end users on safety and benefits of

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ODS-free and low-GWP alternatives; five technical workshops on the use and application of alternative technologies.

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The timeframe for HPMP Stage-III activities are given below:

Table 4: Timeframe for Stage III

ODS	Sector	Outcome	Expected Outputs	2024	2025	2026	2027	2028	2029	2030	2030
HCFC-22	Servicing	Regulatory Framework	ODS Phase-out Legislation/Policies Compendium								
			Issuance of sector Bans for HCFC-22								
		Customs Officers Capacity Building	ODS Imports Risk Profile Manual Developed								
			Customs Officers Training Module Updated								
			Customs Officers trained								
		Awareness Raising to sustain HCFCs Phase-out	Awareness Campaigns on HCFC Bans/Phase-out								
			End-User Awareness Campaign on ODS-free products								
			Capacity Building on Low-GWP alternative Technologies								
		Good Practices Training	Train-the-Trainers Capacity Building								
			Good Practices Technicians Training								
			Extended Certification Scheme implemented								
		Procurement of Equipment	Basic Training Units for Training Centers								
-	PMU	PMU for all sectors	Continuous Implementation and Monitoring Support								

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The overall fund flow and targets for HCFC consumption for the period 2024-2030 under HPMP Stage-III are given below:

Table 5: HCFC consumption targets and funding requirement for Stage-III

Row	Particulars	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	47.78	23.88	23.88	23.88	23.88	23.88	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	18.39	17.84	17.84	17.84	8.92	8.92	0	n/a
2.1	Lead IA (UNDP) agreed funding (US $)	414,824	-	633,126	-	-		134,750-	1,182,700
2.2	Support costs for Lead IA (US $)	29,038	-	44,319	-	-		9,432-	82,789
3.1	Total agreed funding (US $)	414,824	-	633,126	-	-		134,750-	1,182,700
3.2	Total support costs (US $)	29,038	-	44,319	-	-		9,432-	82,789
3.3	Total agreed costs (US $)	**443.862**	**-**	**677,445**	**-**	**-**		**144,182-**	**1,265,489**
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								12.32
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								23.63
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)								0
4.2.2	Phase-out of HCFC-123 to be achieved in the previous stage (ODP tonnes)								0.05
4.2.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)								0
4.3.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)								0
4.3.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)								37.53
4.3.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)								0

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III. RESULTS AND PARTNERSHIPS

Expected Results

Stage III represents the final stage of the HPMP, to be implemented during the period from 2024 to 2030. Throughout this period, Lebanon should meet the compliance targets for 2025 and 2030, aiming for full phase-out within the consumption sector, aligning with the accelerated phase-out timetable outlined in the Montreal Protocol for HCFCs. This will be done under output 3 of project ID 01002405.

The below table summarises the HPMP III main interventions, activities and results:

Sector Plan	Expected Outcome	Descriptipion of Tranches 1, 2 & 3 Activities	Expected Output
Manufacturing	Advisory on technology	Technical assistance for one Manufacturing enterprise (Farjallah)	Technical assistance for canufacturing company to convert Condensing Units Manufacturer to R-32 alternative technology
Servicing	Regulatory Framework Improved	Over its 30 years of implementation in the country, the legal and regulatory framework developed to assist compliance and ODS control is broad and composed by many policies and regulations. Thus, Lebanon will develop a Compendium of this Regulatory Framework that will support stakeholders to have an easy access and understanding.	ODS Phase-out Legislation/Policies Compendium issued
		Lebanon will also ban the use of HCFC-22 in the local manufacturing, imports and establishment of new installations from 31 December 2026. For this, extensive legal work is required which include the proper Legal Analysis as well as economic and social impacts needed to justify of these measures in front of the MP. These are required steps needed to put forward any new piece of legislation.	Sector bans for HCFC-22 issued
	Gender Sensitive Awareness Raise	Awareness and capacity building activities are critical to share knowledge and experience, influence stakeholders and change public perception over	Awareness Campaigns on HCFC Bans/Phase-out

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	to sustain Phase-out	alternative technologies. Stage III will build from the experiences of stage I and II and continue and expand the regular awareness campaigns about HCFCs bans, controlled uses and leakage reduction. End-users driven campaigns to sensitive about safety and benefits of ODS-free/low GWP alternatives will also be carried out. The GoL will continue to promote technical workshops on the use and application of alternative technologies.	End-User Awareness Campaign on ODS-free products
			Capacity Building to promote the use Low-GWP alternative AC-R Technologies Workshops to promote the use of Low-GWP alternative AC-R Technologies
	Customs Officers' Capacities Built	Customs Officers Capacity Building: Stage III will support the customs office of Lebanon in developing risk profile manual for the ODS control, updating the training materials and training of officers.	ODS Imports Risk Profile Manual Developed
			Customs Officers Training Module Updated
			Customs Officers (24-40 trainees)Trained
	Improved Capacities for Gender-sensitive Training Centers and Technicians Training	Good Practices and Procurement of Equipment: Stage III will focus heavily on capacity building of servicing sector technicians as a critical means to improve maintenance practices, reduce leakages and elevate the quality of services in general to support to sustain the HCFCs phase-out. Stage III will procure and deliver standard sets of basic training unite for the fourth Vocational and Training Center: these standardized, fit-to-the purpose training equipment will elevate the capacities initiated in stage II and serve to facilitate the Certification Programme, (as the Centers will be able to deliver regular professional trainings and can be qualified to conduct the certification tests). Expand the base of training to all regions in Lebanon and continue expanding the certification capacities of Lebanon	Purchase of basic equipment for AC-R service workshops
			1 TVET school (RAC center) with basic trainers units Equipped (Hermel Vocational School)
			15 trainers trained (Train the Trainers)
			1500 Technicains Trained
			Certify/Accredit 1500 technicians

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PMU		PMU	Recruit/Establish staff contracts Establish ProDocs/Agreements to allow implementation Carry-on procurement processes for Equipment Conduct stakeholder meetings and implement non-investment activities, etc. Day-to-day management and implementation of the project Organize annual Project Board Meetings. Support preparation of each Tranche Request.

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Resources Required to Achieve the Expected Results

The project needs the following resources to deliver the expected results:

- Project staff (see below detail) including UNDP Country Office staff time for services, quality assurance and general support (refer to sections IV and VIII).
- Consultancy service and/or research institutions for technical support and capacity building. The competitive selection of contractors will be undertaken in line with the UNDP procurement policy.
- Other direct operation costs, such as transport and visibility.
- Indirect cost (charged as DPC in the budget): financial management, procurement, IT, HR, and operation costs that are apportioned to the project, to be collected based on UPL.

Partnerships

The project involves strong coordination needs among different stakeholders to achieve national targets of Lebanon. The main stakeholders and their roles are given below:

The Government of Lebanon represented by the Ministry of Environment: The project will be implemented by UNDP in close coordination with the Ministry of Environment.

UNDP: UNDP is designated as the lead implementing Agency for this project. UNDP will be responsible for providing technical support and managing the implementation of the project. UNDP will also be responsible for the project reporting and independent verification of achievement of ODS phase-out targets under the Agreement.

Other Governmental and non-governmental bodies: There are several Government and Semi-Government bodies that would need to participate in project implementation under this project, which includes institutions responsible for import-export of chemicals, Customs authorities, environment monitoring bodies (NGOs), Ministry of Industry, Industrial Research Institute (IRI) and international cooperation authorities. Their roles would be defined under specific project components. They would also be engaged at various points during project initiation, implementation monitoring and other specific project activities.

The project intends to maintain the coordination and consultation among stakeholders through the below indicative actions and their frequency spread over the duration of the project:

a) Consultation meetings with customs authorities: 2/year
b) Consultation meetings with ODS Importers: 2/year
c) Regular coordination meeting with the Ministry of Environment and UNDP: 3-4/year

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Risks and Assumptions

The risks that might threaten the achievement of project results have been identified and relevant measures to mitigate the risks are envisioned as follows:

Risk Factor	**Risk Level (H=High, M=Medium, L=Low)**	**Mitigating Measures**
Changes in government policies or instability in the political landscape could impact project support, or regulations affecting technology adoption.	L	The relationship between the UNDP and the government stakeholders is strategically oriented on institutional level and is not affected by political ramifications. The project will also engage with multiple stakeholders to ensure project support remains resilient to political changes. Project team will stay adaptable to evolving policies and regulations.
Incompatibility between existing infrastructure and new digital technologies could hinder seamless integration and functionality	L	The project will prioritize thorough compatibility testing before implementation. Vendors will be engaged to conduct pilot tests to ensure seamless integration with existing infrastructure.
Delays or shortages in obtaining necessary equipment, components, or software could impede project timelines and deliverables	M	Diversify suppliers where possible and maintain open communication channels to anticipate and address potential disruptions.
The local businesses lack interest or commitment in piloting digital solutions	M	The pilot site will be selected in close consultation with the government and stakeholders. The digital technologies developed will be cost-effective and make sure the intended benefits can be achieved. Capacity-building activities will be done to ensure the piloted technology can be effectively adopted.
Poor electricity and telecom service sector in the country could jeopardize the operation of digital tools and data collection	H	The pilot project will prioritize energy-efficient tools and IoT devices that require minimal power to function effectively. Local technicians will be trained in the maintenance and repair of digital tools to promptly address technical issues that may arise due to inconsistent electricity or telecom services. The project will also track the performance of digital tools, including their reliability during electricity and telecom service disruptions and adapt strategies, refine tools, or adjust project activities in response to identified challenges.
Political, economic and security situation in Lebanon is very unstable., This may hinder the implementation of some project activities such as procurement of services and equipment, carrying our training sessions etc.	H	UNDP will coordinate closely with the UN Department of Safety and Security (UNDSS) on all security issues and will liaise with government to overcome, to the extent possible, any instability.
Low participation of women due to limited engagement in the sector and socio-cultural norms	H	UNDP will engage from the initiation stage of the project with all women technicians and engineers working in the sector to get them on board.

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Stakeholder Engagement

The project would involve close coordination among Government, regulatory bodies and the implementing agency (UNDP). The project stakeholder engagement and coordination is the foundation for systematic and sustainable HCFC phase-out. The roles and responsibilities of each stakeholder and how they would participate in the "network" for project implementation has been detailed in section on "partnerships" earlier.
The project is expected to be implemented with minimum disruption to business continuity and livelihood of different industry stakeholders. Through funding support and proper timeframe, systematic project implementation process and technology transfer, the project is expected to achieve HCFC phase-out targets with minimum cost to industry and consumer.

South-South and Triangular Cooperation (SSC/TrC)

The project will use international technical bodies like Technology and Economic Assessment Panel (TEAP), and its subsidiary bodies like the Refrigeration Technical Options Committee (RTOC) and other NGOs/industry bodies. The TEAP is the technology and economics advisory body to the Montreal Protocol Parties and is constituted by a pool of experts from developed and developing countries.

Knowledge

The project aims to achieve its objectives by fostering robust engagement with governmental and non-governmental entities, as well as the industrial and public sectors. Its focus lies on providing technical assistance for the transfer of manufacturing processes from ozone-depleting substances (ODS) to non-ODS and Low-GWP alternatives. This includes facilitating the transition to HFCs technology in the air-conditioning sector and promoting the adoption of hydrocarbon and hydrofluoro olefin technologies where applicable.

Furthermore, the project entails enhancing the capacity of technical vocational schools by establishing a fourth RAC (Refrigeration and Air Conditioning) training center in the Bekaa area, in addition to the three existing centers in Beirut, South, and North Lebanon. These centers will deliver essential training to technicians and students engaged in the refrigeration and air-conditioning sectors. The overarching objective is to ensure Lebanon's adherence to the Montreal Protocol commitments, in line with the HCFC phase-out targets.

Additionally, the project offers support to service technicians regarding technology and provides capacity-building assistance for servicing the new equipment, particularly to facilitate a smooth and sustainable transition out of high-GWP HFCs in the medium to long term.

Sustainability and Scaling Up

The project seeks to enhance national systems and capabilities for monitoring the import and export of ozone-depleting chemicals primarily through the establishment and maintenance of a database, as well as through efforts to amend/update legislation pertaining to import/export activities. This database has broader utility, as it can also be utilized by the Government for managing other Montreal Protocol chemicals and hazardous industrial chemicals. The timely phasing-out of the HCFCs (2030) ensures Lebanon's compliance with its set targets and and with the Convention.

The project aims to work closely with local stakeholders and authorities to facilitate a seamless handover of project activities. This will involve capacity building at the national level, ensuring that local entities are equipped to sustain and potentially scale up the achieved results. In terms of strengthening national capacities, the project includes targeted training programs and knowledge transfer initiatives. Regular monitoring and evaluation processes will be implemented to assess the progress of capacity building efforts and adjust strategies accordingly.

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IV. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

The project proposes adopting a combination of strategies to maximize results within the given resource constraints. Utilizing the theory of change analysis will allow project team to systematically examine various options and identify the most effective pathways to achieve the objectives. This approach will provide a clear roadmap, ensuring that efforts are aligned with goals and resource allocation is optimized.

The project uses a portfolio management approach to enhance cost-effectiveness and foster learning: The project ID 01002405 includes two initiatives (digital colling and HPMP III) and will hopefully add on the KIP I once approved; each initiative implemented through separate outputs, and implemented by one Project Management Unit (PMU) which costs are distributed accordingly, and among other relevant project IDs. By strategically leveraging activities and forming partnerships with existing experiences from the previous experience gained from the previous stages, the project can capitalize on shared resources, minimize duplication of efforts, and promote knowledge exchange.

This collaborative approach aligns with best practices and offers opportunities for synergy.

Project Management

The project will be operationalized in Beirut located at the Ministry of Environment strategically chosen for to ensure effective on-the-ground coordination and support. The operations support will be organized through a combination of dedicated and shared resources, such as dedicated staff roles, shared services, etc.

The project is committed to fostering collaboration with related projects to maximize impact and avoid duplication of efforts. Regular coordination meetings with UNDP and GID projects and joint initiatives will be organized to ensure synergy. Audit arrangements will be established in accordance with measures or protocols with UNDP and Country Office Support Services. The project will actively engage with UNDP Country Office Support Services to leverage our expertise and support provided. Regular updates and collaboration will be maintained to align with broader development goal.

Further details on roles is found in the governance and management arrangements (section VIII).

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V. RESULTS FRAMEWORK

Intended Outcome as stated in the UNSDCF/Country Programme Results and Resource Framework: Outcome 3: Strengthened stabilization and green recovery to reduce vulnerabilities and environmental risks
Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets: CPD Outcome 3: Strengthened stabilization and green recovery to reduce vulnerabilities and environmental risks, including through enhanced competitiveness and business environment of sustainability-oriented MSMEs and high potential green productive sector values chains. CPD 3.1 (IRRF output 4.1) Natural resources protected and managed to enhance sustainable productivity and livelihoods. CPD output indicator: Indicator 3.1.4. Yearly consumption of ozone depleting substances. Baseline: 25.5 tonnes; Target: 15 tonnes.
Applicable Output(s) from the UNDP Strategic Plan: IRRF Signature Solution 4, Output 4.1.2 – Sustainable use of natural resources to enhance productivity and livelihoods.
Project title and Quantum Project Number: Digital monitoring and management tools to enhance energy efficiency and reduce emission of green-house gases in the cooling and cold chain sector (outputs 1 and 2) and HCFC phase-out management plan Stage III for compliance with the 2024-2030 control targets of the annex-c, group-i substances of the montreal protocol on substances that deplete the ozone layer (output 3). Award ID 1297927; Project ID 01002405

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EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS (ODP Tons to be phased - out)								DATA COLLECTION METHODS & RISKS
			Value	Year	Year 2024	Year 2025	Year 2026	Year 2027	Year 2028	Year 2029	Year 2030	Total	
Output 3 *Phasing out HCFC in line with Montreal Protocol control measures- Control HCFCs imports/ consumption (Total Phase Out)*	***3.1*** *Volume (tons) of ODP Phased - out*	*Yearly imports consumption of ODS (Ozone Project, Customs, Ministry of Economy, Importers)*	73.5 ODP Tons	2009/ 2010 Average	*18.39 (Freeze)*	17.84	17.84	17.84	*8.92*	*8.92*	*0 (Only 2.5 to be left for Servicing use)*	*n/a*	*Quantitative (Surveys) *Stakeholder Consultation *Verification of HCFC Phase-out *Data from Customs and Ministry of Industry

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VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans:

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Project progress report for implementation to be submitted to the executive Committee of the Montreal Protocol	Along with each request for tranche	Based on specific guidance from the Executive Committee and in consultation with the implementation agency, actions will be taken by the PMU for strengthening the project implementation	UNDP With the assistance of MOE	Internal
	Independent Performance Verification Report of achievement of national consumption targets				Approximately USD 10,000 for each one PVR
Monitor and Manage Risk	Project partner coordination and cooperation risks	Bi-yearly (if need be quarterly)	Close monitoring using project management team. Refer to risk log	UNDP MOE	Internal
	Policy and regulations development risk	Annually	Close work with the Project management team and partners and senior government officials on implementation of regulations in a timely manner	UNDP MOE	Internal
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	Annually	Relevant lessons are captured by the project team and used to inform management decisions through annual reporting/annual board meetings	UNDP MOE	Internal
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project. Noting that the QA is provided by the E&E programme who performs regular (at least quarterly) reviews of the projects.	Every two years	Areas of strength and weakness will be required by project management and will be used to inform decisions to improve project performance	UNDP	Internal

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Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	Annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	UNDP MOE	Internal
Project Report	A progress report will be submitted to the project board and key government focal points, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk along with mitigation measures, and any evaluation or review reports prepared over the period.	Annually and at the end of the project (final report)	The progress report will be reviewed based on the comments received from the MP bodies and UNDP management as well as the Government national focal points	UNDP Ozone Project	Internal
Project Review (Project Board)	The project board will hold regular project review to assess the performance of the project and review the multi-year work plan to ensure realistic budgeting and activities over the life of the project. The project board shall hold an end of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences	Annually	Any Quality concerns or slower than expected progress shall be discussed by the project board and management actions agreed to address the issues identified	UNDP	Internal

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VII. MULTI-YEAR WORK PLAN

EXPECTED OUTPUTS	PLANNED ACTIVITIES	Planned Budget by Year (USD)							RESPONSIBLE PARTY	PLANNED BUDGET (USD)		
		2024	2025	2026	2027	2028	2029	2030		Funding Source	Budget Description	Amount
Output 3: *Phasing out HCFC in line with Montreal Protocol control measures-Control HCFCs imports/ consumption (Total Phase Out)*	**Good Practices Training:** - Train-the-Trainers Capacity Building - Good Practices Technicians Training - Implementation of Certification Scheme **Awareness Raising to sustain HCFCs Phase-out:** - Awareness Campaigns on HCFC Bans/Phase-out - End-User Awareness Campaign on ODS-free products - Capacity Building on Low-GWP alternative Technologies **Regulatory Framework:** - ODS Phase-out Legislation/Policies Compendium - Issuance of sector Bans for HCFC-22 **Customs Officers Capacity Building:** - Development of ODS Imports Risk	-	10,000	-	10,000	10,000	10,000		UNDP	MLF (63030)	71300-Local Consultant	40,000
		-	40,000	70,000	100,000	100,000	100,000	52,000			71400-Contractual Services Individual	462,000
		-	10,000	5,000	10,000	10,000	10,000	6,000			71600-travel	51,000
		93,000	161,000	9,000	106,000	106,000	30,000	60,000			72100-Constractual Services Companies	565,000
		-	-	500-	-	-	2000	2000			72200 - Equipment and furniture	4,500
		-	500	500-	-	-	500-	1000			72300 – Materials & Goods	2,500
		-	-	-	3,000	3,000					72400 – Communication & Audio – visual Equip.	6,000
		-	500	500	-	-	500	1000			72500 - Supplies	2,500
		-		-	-	-		5,000			72800 – IT Equipment	5,000
		-	200	124	200	200	200	1050			73400 – Rental and Maintenance of Other Equipment	1,974

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EXPECTED OUTPUTS	PLANNED ACTIVITIES	Planned Budget by Year (USD)							RESPONSIBLE PARTY	PLANNED BUDGET (USD)		
		2024	2025	2026	2027	2028	2029	2030		Funding Source	Budget Description	Amount
	Profile Manual - Update module of Customs Officers Training - Trainings for Customs officers **Procurement of Equipment** for One Refrigeration and Air Conditioning Centerat Hermel Vocational School Continuous Implementation and Monitoring Support	4,000		-	2,500	2,500	5,526	4,000			74200 - Audio Visual&Print Prod Costs	18,526
		-	500	500	500	500		200			74500 – Miscellaneous	2,200
		-	1,000	1,000	1,500	1,500	1,000	1,000			75700- Learning Cost	7,000
		2,000	3,000	2,000	2,000	2,000	2,000	1,500			64397 - DPC	14,500
Tranches		**Tranche 1**			**Tranche 2**			**Tranche 3**				
Subtotal		**99,000**	**226,700**	**89,124**	**235,700**	**235,700**	**161,726**	**134,750**				**1,182,700**
Total		**414,824**			**633,126**			**134,750**				

The workplan for years 2024-2030 is only indicative. The budget breakdown will be updated based on the DOA to be received for each tranche. Budget for years 2024-2030 is cleared.

Multiyear workplan for Tranche 1:

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Output 3	PLANNED ACTIVITIES	RESPONSIBLE PARTY	Funding Source	Planned Budget (USD)				
MLF references	**Sub-tasks**			Budget Description	Total Budget	2024	2025	2026
Task 3: Technical assistance for commercial refrigeration manufacturing sector - MLF reference: LEB/PHA/93/INV/103	Technical assistance for manufacturing company to complete phase-out of the remaining HCFC-22 consumption in the manufacturing sector and convert condensing units manufacturer to R-32 alternative technology			72100-Constractual Services Companies	53,136.00	10,627.20	42,508.80	
				Subtotal Task 3	**53,136.00**	**10,627.20**	**42,508.80**	**-**
Task 4: **Servicing sector - MLF reference: LEB/PHA/93/INV/104**	**Awareness Raising to sustain HCFCs Phase-out:** - Awareness Campaigns on HCFC Bans/Phase-out - End-User Awareness Campaign on ODS-free products - Capacity Building on Low-GWP alternative Technologies	UNDP	MLF	71300-Local Consultant	20,000.00	-	20,000	-
				71400-Contractual Services Individual	76,000.00	-	46,000.00	30,000.00
				71600-travel	4,764.00	-	3,000.00	1,764.00
	Good Practices Training: - Train-the-Trainers Capacity Building - Good Practices Technicians Training - Implementation of Certification Scheme			72100-Constractual Services Companies	177,000.00	45,000.00	132,000.00	-
				72200 - Equipment and furniture	500.00	-	-	500.00
				72300 – Materials & Goods	1,000.00	-	500.00	500.00
	Procurement of Equipment for One Refrigeration and Air Conditioning Centerat Hermel Vocational School			72500 - Supplies	1,000.00	-	500.00	500.00

	Regulatory Framework: - ODS Phase-out Legislation/Policies Compendium - Issuance of sector Bans for HCFC-22 **Customs Officers Capacity Building:** - Development of ODS Imports Risk Profile Manual - Update module of Customs Officers Training - Trainings for Customs officers			72800 - IT Equipment	1,600.00	-	800.00	800.00
				73400 – Rental and Maintenance of Other Equipment	324.00	-	200.00	124.00
				74200 - Audio Visual&Print Prod Costs	6,700.00	-	4,000.00	2,700.00
				74500 – Miscellaneous	300.00	-	300.00	-
				75700- Learning Cost	10,000.00	-	5,000.00	5,000.00
				Subtotal Task 4	**299,188.00**	**45,000.00**	**212,300.00**	**41,888.00**
Task 5: **PMU - MLF reference: LEB/PHA/93/INV/105**	Continuous Implementation and Monitoring Support	UNDP	MLF	71400-Contractual Services Individual	39,000.00			39,000.00
				72100-Constractual Services Companies	9,500.00			9,500.00
				74200 - Audio Visual&Print Prod Costs	4,000.00		4,000.00	-
				74500 – Miscellaneous	1,000.00	-	500.00	500.00
				75700- Learning Cost	2,000.00	-	1,000.00	1,000.00
				64397 - DPC	7,000.00	2,000.00	3,000.00	2,000.00
				Subtotal Task 5	**62,500.00**	**2,000.00**	**8,500.00**	**52,000.00**
Total Output 3 (Total of T1 HPMP SII)					**414,824.00**	**57,627.20**	**263,308.80**	**93,888.00**

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VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

The project will be managed in accordance with standard UNDP procedures as Direct Implementation (DIM) modality~~,~~ in close collaboration with the Government of Lebanon through its UNDP managed Ozone Project team established at the Ministry of Environment. The UNDP Ozone Project team is partially supported through the Institutional Strengthening Project with financial assistance from the Multilateral Fund and implemented by UNDP.

UNDP will be working closely with the MoE; the UNDP Country Office will be responsible for overseeing project budgets and expenditures, recruiting and contracting consultant services, procuring equipment, and project evaluation and reporting, result-based project monitoring, and organizing independent audits to ensure the proper use of FW funds. Financial transactions, auditing and reporting will be carried out in compliance with UNDP procedures for national execution.

The project management team will be comprised of existing project staff. The UNDP Ozone Project team will manage the technical implementation of the Project, under the overall supervision and direction of Green and Inclusive Development Programme. The Project Associate will provide programme operation and administrative support to the Project.

The UNDP country office will provide the following support services, covered by Direct Project Cost (DPC), for the activities of the programme/project; the DPC will be collected based on the UPL:

i. Payments, disbursements and other financial transactions
ii. Recruitment of staff, project personnel, and consultants
iii. Procurement of services and equipment, including disposal
iv. Organization of training activities, conferences, and workshops, including fellowships
v. Travel including visa requests, ticketing, and travel arrangements
vi. Shipment, customs clearance, vehicle registration, and accreditation
vii. Security management service and Malicious Acts Insurance Policy
viii. Access to Quantum for project managers and other staff, Payroll management services and Medical Clearance Services for all staff

The UNDP country office will also provide the following general oversight and management services (GMS) at the rate of 7%, for the activities of the project which include the following:

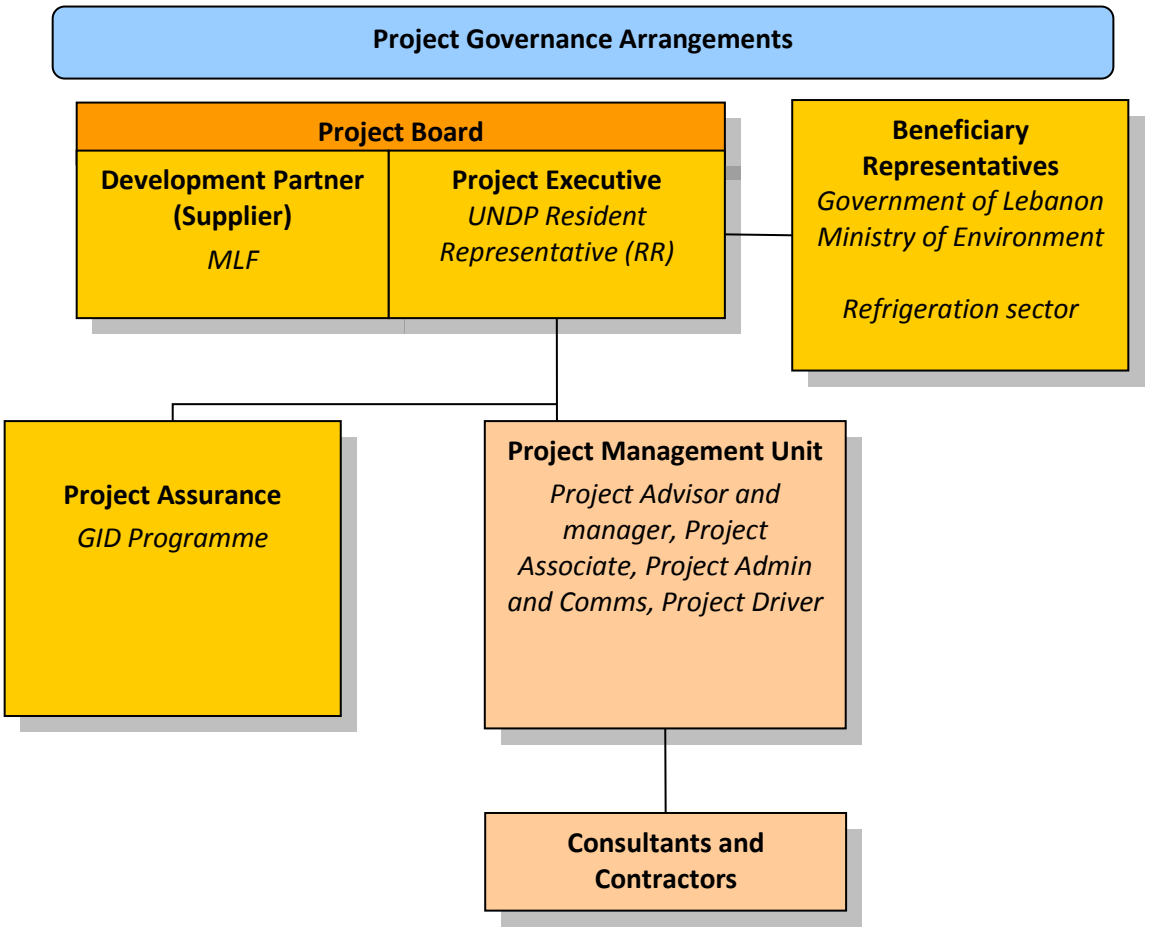
i. Corporate executive management and resource mobilisation
ii. Corporate accounting, financial management, internal audit, legal support and human resources management
iii. Policy guidance and Bureau/Country Office management

The GMS fees are applied to the vertical funding windows as stated in the Authorisation Letter from BPPS: "The General Management Support Services (GMS) fee received by UNDP in relation to these projects is managed centrally at BPPS-HQ and should NOT be part of the project budget. The support cost rate approved by the donor is 7% for this project. […] The Burdening Rate in the Award Budget at 7% by selecting Montreal P.Trust Fund 7% option."

The audit of DIM projects is made through the regular external (UN Board of Auditors) or internal audits (audits managed by UNDP's Office of Audit and Investigations).

The project board remains as follows:

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Implementing Partner: The Implementing Partner for this project is UNDP.

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

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Project stakeholders and target groups: Refrigeration sector in Lebanon

UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution to ensure that the project is being carried out in accordance with UNDP policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings.

A strict firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and project execution undertaken by UNDP.

Project Board:

Responsibilities:

- ✓ Consensus decision making:
  - The project board provides overall overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.
  - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS;
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- ✓ Risk Management:
  - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
  - Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project.
  - Address project-level grievances.
- ✓ Coordination:
  - Ensure coordination between various donor and government-funded projects and programmes.
  - Ensure coordination with various government agencies and their participation in project activities.

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Composition of the Project Board:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: **UNDP Senior management represented by the Resident Representative.**
2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are: **The Ministry of Environment represented by the National Focal Point.**
3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are: ***MLF.***

Project Assurance:
Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are: *are the Deputy Resident Representative, Environment Programme Manager and Associate.*

Project Management – Execution of the Project:
The Project Manager (PM) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

The PMU will have responsibility for, among others: (i) managing and executing the project, (ii) contracting consultants and trainers (iii) assisting in institutional arrangements by designating the relevant focal points in the different institutions and informing the ToRs for consultants, (iv) aligning project activities with national priorities and international agreements through providing input from previous assessments to the recruited consultants, (v) reviewing and validating deliverables, as well as replicating deliverables such as trainings to a wider audience, (vi) coordinating the management of financial resources and procurement, (vii) reporting on the application of resources and results achieved, (viii) preparing management reports to

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the MLF and UNDP, (ix) promoting inter-institutional linkages, and (x) monitoring and evaluation, and disseminating project results. An associate will be assigned to assist in the coordination of the PMU.

A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative. The primary PMU representative attending board meetings is the Project Manager (to be hired).

The administrative and technical assistance to the project manager will be provided by a team, which will be based at the Ministry, together with the Project Manager to ensure proper coordination with the focal point. The Project is fully embedded within the governance systems of Lebanon and, as such, directly supports its structures, functions, and strategic commitments. In this context, the project will implement its activities using the existing institutional, legal and administrative structures in Lebanon. Project activities related to cooperation, training and information sharing will aim to use already established, legitimate participatory bodies, as well as existing training and cooperation platforms.

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IX. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Lebanon and UNDP, signed on 10 February 1986. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by UNDP ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

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IX. RISK MANAGEMENT

UNDP (DIM)

1. UNDP as the Implementing Partner will comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)

2. UNDP as the Implementing Partner will undertake all reasonable efforts to ensure that none of the [project funds][1] [UNDP funds received pursuant to the Project Document][2] are used to provide support to individuals or entities associated with terrorism , that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

3. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

4. UNDP as the Implementing Partner will: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

5. In the implementation of the activities under this Project Document, UNDP as the Implementing Partner will handle any sexual exploitation and abuse ("SEA") and sexual harassment ("SH") allegations in accordance with its regulations, rules, policies and procedures.

6. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

7. UNDP as the Implementing Partner will ensure that the following obligations are binding on each responsible party, subcontractor, and sub-recipient:

a. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of each responsible party, subcontractor and sub-recipient and its personnel and property, and of UNDP's property in such responsible party's, subcontractor's and sub-recipient's custody, rests with such responsible party, subcontractor and sub-recipient. To this end, each responsible party, subcontractor and sub-recipient shall:
   i. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
   ii. assume all risks and liabilities related to such responsible party's, subcontractor's and sub-recipient's security, and the full implementation of the security plan.

b. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the responsible party's, subcontractor's and sub-recipient's obligations under this Project Document.

[1] To be used where UNDP is the Implementing Partner

[2] To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

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c. Each responsible party, subcontractor and sub-recipient (each a "sub-party" and together "sub-parties") acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the sub-parties, and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.
   (a) In the implementation of the activities under this Project Document, each sub-party shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").
   (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, each sub-party, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.
d. In the performance of the activities under this Project Document, each sub-party shall (with respect to its own activities), and shall require from its sub-parties (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, sub-parties will and will require that their respective sub-parties will take all appropriate measures to:
   (i) Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
   (ii) Offer employees and associated personnel training on prevention and response to SH and SEA, where sub-parties have not put in place its own training regarding the prevention of SH and SEA, sub-parties may use the training material available at UNDP;
   (iii) Report and monitor allegations of SH and SEA of which any of the sub-parties have been informed or have otherwise become aware, and status thereof;
   (iv) Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
   (v) Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. Each sub-party shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the relevant sub-party shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.
e. Each sub-party shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the relevant sub-party to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.
f. Each responsible party, subcontractor and sub-recipient will ensure that any project activities undertaken by them will be implemented in a manner consistent with the UNDP Social and Environmental Standards and shall ensure that any incidents or issues of non-compliance shall be reported to UNDP in accordance with UNDP Social and Environmental Standards.
g. Each responsible party, subcontractor and sub-recipient will take appropriate steps to prevent misuse of funds, fraud, corruption or other financial irregularities, by its officials, consultants, subcontractors and sub-recipients in implementing the project or programme or using the UNDP

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funds. It will ensure that its financial management, anti-corruption, anti-fraud and anti money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

h. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to each responsible party, subcontractor and sub-recipient: (a) UNDP Policy on Fraud and other Corrupt Practices (b) UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy; and (c) UNDP Office of Audit and Investigations Investigation Guidelines. Each responsible party, subcontractor and sub-recipient agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

i. In the event that an investigation is required, UNDP will conduct investigations relating to any aspect of UNDP programmes and projects. Each responsible party, subcontractor and sub-recipient will provide its full cooperation, including making available personnel, relevant documentation, and granting access to its (and its consultants', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with it to find a solution.

j. Each responsible party, subcontractor and sub-recipient will promptly inform UNDP as the Implementing Partner in case of any incidence of inappropriate use of funds, or credible allegation of fraud, corruption other financial irregularities with due confidentiality.
Where it becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, each responsible party, subcontractor and sub-recipient will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). It will provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

k. Choose one of the three following options:
Option 3: UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud corruption or other financial irregularities, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement.

Where such funds have not been refunded to UNDP, the responsible party, subcontractor or sub-recipient agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to such responsible party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularities, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

l. Each contract issued by the responsible party, subcontractor or sub-recipient in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from it shall cooperate with any and all investigations and post-payment audits.

m. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project or programme, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all

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individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

n. Each responsible party, subcontractor and sub-recipient shall ensure that all of its obligations set forth under this section entitled “Risk Management” are passed on to its subcontractors and sub-recipients and that all the clauses under this section entitled “Risk Management Standard Clauses” are adequately reflected, *mutatis mutandis*, in all its sub-contracts or sub-agreements entered into further to this Project Document.

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X. ANNEXES

1. **Project Quality Assurance Report:** Completed in Quantum/Unity+; **Ref: ASM-07867**
2. **Social and Environmental Screening:** Completed in Quantum/Unity+; **Ref: ASM-07865**
3. **Risk Analysis**
4. **Capacity Assessment:** Not applicable as all activities are directly implemented by UNDP
5. **On-Granting Provisions Applicable to the Implementing Partner.** Not Applicable
6. **TORs of key management positions:** Same as previous stages.
7. **Lebanon's HPMP Stage III document as approved by the MLF Executive Committee**
8. **Gender Assessment, Findings and Action Plan**

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ANNEX 3: Risk Analysis

#	Event	Caused by	Impact(s)	Risk Category and Sub-category *(including Risk Appetite)*	Impact, Likelihood & Risk Level *(see Annex 3 Risk Matrix)*	Risk Valid From/To	Risk Owner *(individual accountable for managing the risk)*	Risk Treatment and Treatment Owner
1	Adverse global environmental concerns through potential exacerbation of climate change	Sectors targeted by the Project may migrate to use of high/GWP cooling technologies as result of Country's Compliance Targets and project interventions.	Country's sector carbon intensity/footprint and negative impacts towards compliance to the Kigali Amendment to the Montreal Protocol	**1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **3 - Moderately likely** Impact: **4 - Extensive** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 01-May-24 To: 31-Dec-30	Project Manager	Following the MLF Guidelines, the project will strongly promote the adoption of alternatives that are lower than the baseline HCFCs being replaced. The Risk Management and mitigation actions will include: • Awareness Campaign component to sensitive and support the stakeholders about impacts of technology choices and support them to choose low-GWP alternatives.
2	Reduce discriminations against women	Low participation of women due to limited engagement in the sector caused by socio-cultural norms.	Women may not benefit from capacity building activities due to existing discriminations. MLF and UNDP Gender Policies and Guidelines may not be fulfilled.	**1. SOCIAL AND ENVIRONMENTAL (1.2. Gender equality and women's empowerment) - UNDP Risk Appetite:**	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 01-June-24 To: 31-Dec-30	Project Manager	The project has been designed taking into consideration UNDP Gender Policy and MLF's Operational Gender Mainstreaming Guidelines. The project was screened against Gender Checklist provided by the MLF and industry level surveys took into consideration gender aspects in collecting baseline data. The Risk Management includes:

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				CAUTIOUS				• The development of a Gender Action Plan.
3	Workers at partner facilities exposed to adverse working conditions in contravention with national labour standards or principles and standards of ILO fundamental conventions	Employees at these facilities may be exposed to worker discrimination, be denied freedom of association and collective bargaining and occupational health and safety risks. While less likely, use of child and forced labour may also exist at the facilities.	Employees and communities are avoided to benefit from capacity building activities due to existing discriminations.	**1. SOCIAL AND ENVIRONMENTAL (1.10. Labour and working conditions) - UNDP Risk Appetite: CAUTIOUS** **1. SOCIAL AND ENVIRONMENTAL (1.3. Grievances (Accountability to stakeholders)) - UNDP Risk Appetite: CAUTIOUS**	Likelihood: **2 - Low likelihood** Impact: **4 - Extensive** Risk level: **MODERATE (equates to a risk appetite of EXPLORATORY)**	From: 01-May-24 To: 31-Dec-30	Project Manager	The Risk Management includes: • Continuous monitoring of beneficiary companies in relation to their adherence of Labour Laws throughout project lifecycle. • Application of Best Practices and the development of Occupational Health and Safety Plan, the later, if needed at company level to improve their practices. • For Project suppliers, UNDP will only engage with supplier that are not listed on the Consolidated United Nations Security Council Sanctions List, the UNDP vendor sanctions list or the UN Global Marketplace list.

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4	There is a risk of political instability and security situation in the country	Changes in government policies or instability in the political landscape could impact project support, or regulations affecting technology adoption.	The inability of the government to operate affects the implementation of the project activities	8. SAFETY AND SECURITY (8.2. Political instability) - UNDP Risk Appetite: CAUTIOUS	Likelihood: 3 - Moderately likely Impact: 3 - Intermediate Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)	From: 01-May-24 To: 31-Dec-2025	Project Manager	The relationship between the UNDP and the government stakeholders is strategically oriented on institutional level and is not affected by political ramifications. The project will also engage with multiple stakeholders to ensure project support remains resilient to political changes. Project team will stay adaptable to evolving policies and regulations.
5	The rapid of technological advancement means that new digital technologies often outpace existing infrastructure	Incompatibility between existing infrastructure and new digital technologies could hinder seamless integration and functionality	lead to disruptions in workflows, increased costs due to customization or upgrades, and reduced system functionality. This impedes seamless integration, hampers productivity, and poses risks to data security and regulatory compliance.	3. OPERATIONAL (3.8. Capacities of the partners) - UNDP Risk Appetite: EXPLORATORY TO OPEN	Likelihood: 3 - Moderately likely Impact: 4 - Extensive Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)	From: 01-May-24 To: 31-Dec-2025	Project Manager	The project will prioritize thorough compatibility testing before implementation. Vendors will be engaged to conduct pilot tests to ensure seamless integration with existing infrastructure.

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6	Global and national economic fluctuations and regional conflicts	Delays or shortages in obtaining necessary equipment, components, or software could impede project timelines and deliverables	Delays or shortages in acquiring essential equipment, components, or software can significantly disrupt project timelines and deliverables. These setbacks can lead to increased costs, reduced productivity, missed opportunities, and potential customer dissatisfaction. Ultimately, such impediments may jeopardize the success of the project and impact the organization's reputation and bottom line.	8. SAFETY AND SECURITY (8.7. Manmade hazards) - UNDP Risk Appetite: CAUTIOUS	Likelihood: 3 - Moderately likely Impact: 4 - Extensive Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)	From: 01-May-24 To: 31-Dec-2025	Project Manager	Diversify suppliers where possible and maintain open communication channels to anticipate and address potential disruptions.

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7	Limited awareness of potential benefits, concerns about costs or implementation complexity, scepticism about the value of digital technologies, or a preference for traditional methods due to perceived reliability or familiarity.	The local businesses lack interest or commitment in piloting digital solutions	The impact of local businesses lacking interest or commitment in piloting digital solutions includes missed opportunities for efficiency gains, reduced competitiveness in the market, hindered innovation potential, limited access to new markets or customers, and a potential inability to adapt to changing consumer preferences or industry trends	1. SOCIAL AND ENVIRONMENTAL (1.12. Stakeholder engagement) - UNDP Risk Appetite: CAUTIOUS	Likelihood: 4 - Highly likely Impact: 4 - Extensive Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)	From: 01-May-24 To: 31-Dec-2025	Project Manager	The pilot site will be selected in close consultation with the government and stakeholders. The digital technologies developed will be cost-effective and make sure the intended benefits can be achieved. Capacity-building activities will be done to ensure the piloted technology can be effectively adopted.
8	Political, economic and security situation in Lebanon is very unstable.,	Government is a caretaker and security situation in the country is unstable	This may hinder the implementation of some project activities such as carrying training sessions, access to implementation sites and awareness	8. SAFETY AND SECURITY (8.5. Civil unrest) - UNDP Risk Appetite: CAUTIOUS	Likelihood: **3 - Moderately likely** Impact: **3 - Intermediate** Risk level: **LOW (equates to a risk appetite of CAUTIOUS)**	From: 01-May-24 To: 31-Dec-2025	Project Manager	UNDP will coordinate closely with the UN Department of Safety and Security (UNDSS) on all security issues and will liaise with government to overcome, to the extent possible, any instability.

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			raising activities etc.					

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ANNEX 7: Lebanon's HPMP Stage III document as approved by the MLF Executive Committee

UNITED NATIONS

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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(d) of the of the provisional agenda[1]

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, first tranche) UNDP

[1] UNEP/OzL.Pro/ExCom/93/1

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Lebanon

(I) PROJECT TITLE	AGENCY
HCFC phase-out plan (stage III)	UNDP

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2022	25.63 ODP tonnes

(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

(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)	4.9	0.0	0.0	4.9
	Funding (US $)	460,186	0	0	460,186

(VI) PROJECT DATA			2023	2024	2025	2026	2027	2028	2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			47.78	47.78	23.88	23.88	23.88	23.88	23.88	0	n/a
Maximum allowable consumption (ODP tonnes)			27.58	18.39	17.84	17.84	17.84	8.92	8.92	0	n/a
Project costs requested in principle (US $)	UNDP	Project costs	414,824	0	0	633,126	0	0	0	134,750	1,182,700
		Support costs	29,038	0	0	44,319	0	0	0	9,432	82,789
Total project costs recommended in principle (US $)			414,824	0	0	633,126	0	0	0	134,750	1,182,700
Total support costs recommended in principle (US $)			29,038	0	0	44,319	0	0	0	9,432	82,789
Total funds recommended in principle (US $)			443,862	0	0	677,445	0	0	0	144,182	1,265,489

(VII) Request for approval of funding for the first tranche (2023)		
Implementing agency	Funds recommended (US $)	Support costs (US $)
UNDP	414,824	29,038

Secretariat's recommendation:	Individual consideration – all technical and cost issues resolved

2

PROJECT DESCRIPTION

Background

1. On behalf of the Government of Lebanon, UNDP as the designated implementing agency has submitted a request for stage III of the HCFC phase-out management plan (HPMP), at the amount of US $1,469,505, plus agency support costs of US $102,865, as originally submitted.[2] The implementation of stage III of the HPMP will phase out all remaining consumption of HCFCs by 2030.

2. The first tranche of stage III of the HPMP being requested at this meeting amounts to US $605,129, plus agency support costs of US $42,359 for UNDP, as originally submitted.

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

3. Stage I of the HPMP for Lebanon was originally approved at the 64th meeting[3] and revised at the 70th and 74th meetings[4] to meet a 17.5 per cent reduction from the baseline by 2017, at a total cost of US $2,495,109, plus agency support costs. Stage I originally phased out 20.05 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) manufacturing sector and was revised at the 74th meeting to include an additional 4.45 ODP tonnes in the servicing sector for a total phase out of 24.51 ODP tonnes. Stage I of the HPMP was completed by December 2018, as stipulated in the Agreement between the Government of Lebanon and the Executive Committee.

4. Stage II of the HPMP for Lebanon was originally approved at the 75th meeting[5] and revised at the 86th meeting[6] to phase out 36.7 ODP tonnes of HCFCs used in the RAC servicing sector and to meet a 75 per cent reduction from the baseline by 2024, at a total cost of US $ 4,203,826, plus agency support costs. Stage II of the HPMP will be completed by 31 December 2025, as stipulated in the Agreement between the Government of Lebanon and the Executive Committee; the last tranche was approved at the 92nd meeting.

Report on HCFC consumption

5. The Government of Lebanon reported a consumption of 25.63 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
Metric tonnes						
HCFC-22	562.5	517.01	526.18	474.28	465.99	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
Total (metric tonnes)	**750.5**	**656.86**	**582.21**	**474.28**	**465.99**	**997.23**
ODP tonnes						
HCFC-22	30.94	28.44	28.94	26.09	25.63	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
Total (ODP tonnes)	**51.62**	**43.82**	**35.10**	**26.09**	**25.63**	**73.53**

[2] As per the letter of 21 August 2023 from the Ministry of Environment of Lebanon to UNDP.
[3] Decision 64/44
[4] Annex XVI of UNEP/OzL.Pro/ExCom/70/59 and Decision 74/46
[5] Decision 75/46
[6] Decision 86/91

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6. In 2022, the consumption of HCFC-22 is attributed to one refrigeration manufacturing enterprise (2 per cent) and to the refrigeration and air-conditioning (RAC) servicing sector (98 per cent). The reduction in 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 R-410A and HFC-32 in 2019 and in 2021, and the retirement/replacement of old HCFC-22-based systems. 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 for HCFC-141b have been issued since the ban. In addition, the use of HCFC-141b in the RAC sector for flushing and cleaning purposes has been banned since 2019.

Country programme implementation report

7. The Government of Lebanon 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.

Status of progress and disbursement

Legal framework

8. 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. A 2021 decree made amendments to the ODS licensing system 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 in 2023. Starting in 2024, import quotas will be set based on historical imports of each registered importer as previously done with HCFCs. The Government of Lebanon ratified the Kigali Amendment in February 2020.

9. As reported at the 92nd meeting, 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. Progress from March 2023 until August 2023 was not captured in the submission.

Polyurethane foam manufacturing

10. The conversion of four foam enterprises to isopentane technology, was successfully completed as of January 2019 under the second tranche of stage II. 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

11. The conversion of the 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 under stage II, amounted to 59.63 mt (3.28 ODP tonnes) of HCFC-22 and 16.85 mt (1.85 ODP tonnes) of HCFC-141b.

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Refrigeration servicing sector

12. As reported at the 92nd meeting, 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 servicing sector technical guidebook was developed to support 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. Progress from March 2023 until August 2023 was not captured in the submission; however, training for 200 technicians had been planned for the second half of 2023. The training programmes for 2024 has been designed and agreed with relevant stakeholders.

Level of fund disbursement

13. As of July 2023, of the US $4,203,826 approved for stage II, US $3,792,459 had been disbursed, as shown in table 2. The balance of US $411,367 will be disbursed in 2023 and 2024.

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

Funding tranche	Funds approved	Funds disbursed	Disbursement rate (%)	Fund balance
First	2,810,000	2,810,000	100	0
Second	1,114,000	1,114,000	100	0
Third	420,462	268,459	64	152,003
Fourth	259,364	0	0	259,364
Total	4,203,826	3,792,459	90	411,367

Stage III of the HCFC phase-out management plan

Remaining consumption eligible for funding

14. After deducting 61.21 ODP tonnes of HCFCs associated with stages I and II of the HPMP, the remaining consumption eligible for finding in stage III amounts to 12.32 ODP tonnes of HCFC-22.

Sector distribution of HCFCs

15. HCFC-22 is the only HCFC remaining in Lebanon, and its consumption is predominantly in the RAC servicing sector (98 per cent), the remaining 2 per cent is attributed to one enterprise in the commercial refrigeration manufacturing sector as shown in table 3 below.

Table 3. Sector consumption of HCFCs, 2022 (metric tonnes)

Substance	Manufacturing	Servicing
HCFC-22 (mt/ODP tonnes)	9.64/0.53	455.09/25.03
Share of consumption (%)	2	98

16. There are approximately 5,000 technicians in the country; however, due to the economic crisis in the country it is estimated that only 1,500 are presently connected to a servicing workshop. Roughly 240-280 workshops in the servicing sector are using HCFC-22 to service RAC equipment. In 2022, the HCFC demand for servicing was 473.98 mt (26.07 ODP tonnes) for residential AC (32 per cent), light commercial and commercial AC (12 per cent), industrial refrigeration and small chillers (9 per cent) and

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commercial refrigeration (47 per cent) the other most common refrigerants currently used in the servicing sector are R-410A, R-407C, and R-404A.

Phase-out strategy

17. Stage III of the HPMP will focus on strengthening the regulatory framework, building capacity in customs and enforcement, further strengthening the capacity of the servicing sector by delivering RAC technician training and certification, phasing out the remaining consumption in the RAC manufacturing sector, and raising awareness among end users.

Commercial refrigeration manufacturing sector

18. Stage III includes the conversion of one remaining refrigeration manufacturing enterprise (Farjallah Holding S.A.L.) with an average consumption of 0.61 ODP tonnes (11.07 mt) of HCFC-22 for manufacturing condensing units. The enterprise would convert to transcritical CO_2 (R-744) for markets in which ambient temperature are more conducive for energy efficiency, and CO_2 with HFO-1234yf for larger systems. The conversion entails redesign of the condenser units, technical assistance to convert the manufacturing line, adapting the heat exchanger manufacturing for the new specifications and requirements of the equipment, and training of installers and servicing personnel. The incremental capital cost (ICC) has been estimated at US $176,000 and incremental operating cost (IOC) at US $39,100 for a total of US $215,700. The Government of Lebanon through UNDP is requesting US $210,411 using the cost-effectiveness of US $19.01/kg (US$15.21/kg for ICC and US$3.8/kg for IOC[7]) for the conversion of this enterprise.

19. The ICC included the cooling system redesign, testing and certification; production process redesign and training; heat exchangers and sheet metal; assembly line requirements (small HFO charging unit, CO_2 charging unit, CO_2/HFO storage site); high pressure testing of the system and leak detection for CO_2, sensors and fire safety training equipment; training and installation, and safety audit. The IOC included scroll compressors; brazed plate heat exchangers, copper tubes, fittings and joints, valves, and refrigerants. A summary of requested costs is presented in table 5 below.

Table 5. Total cost of the conversion of one enterprise in the refrigeration manufacturing sector

Enterprise	HCFC-22 average consumption (2020-2022)		Cost (US $)			Requested from Multilateral Fund	C.E.
	mt	ODP tonnes	ICC	IOC*	Total	Total (US $)	(US $/kg)
Farjallah Holding S.A.L	11.07	0.61	176,000	39,700	215,700	210,441	19.01

* per 1,000 units

Activities in the refrigeration servicing sector

20. For stage III of the HPMP the following activities are proposed:

(a) *Regulatory framework*: development of a compendium of ODS phase-out legislation and policies to support stakeholders; issuance of bans on HCFC-22 in local manufacturing, and on the import and establishment of new installations from 31 December 2025 (US $70,000);

(b) *Customs officers capacity building*: regular and refresher trainings for 27 customs officers on ODS control and update of training materials and development of an ODS imports risk

[7] Decision 74/50(c)(ix)

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profile manual (US $97,500);

(c) *Training, certification and equipment*: capacity building of RAC technicians on good servicing practices and reducing leakages through a train the trainers programme for a total of 15 RAC trainers and training and certification for a total of 500 technicians (US $187,500); equipping three vocational training centres with standard training equipment and tools (including refrigeration cycle trainer equipment; basic split-AC trainer unit; condensing trainer unit; commercial refrigeration rack trainer unit and display door unit; gauge manifold set; leak detectors; weight scale; small-scale charging machine; refrigerant recovery and recycle unit, vacuum pump; digital vacuum gauge; thermometer and cylinder) (US $278,064); and

(d) *Gender-sensitive awareness raising to sustain phase-out*: continue and expand awareness campaigns about HCFC bans, controlled use and leakage reduction; campaign targeting end users on safety and benefits of ODS-free and low-GWP alternatives; five technical workshops on the use and application of alternative technologies (US $389,000).

Project implementation and monitoring

21. The system established under stages I and II of the HPMP will continue into stage III, with the project management unit (PMU) overseen by UNDP and placed within the structure of the national ozone unit (NOU). The PMU will ensure the coordination of activities, monitoring, reporting on progress, and working with stakeholders to phase out HCFCs. The cost of those activities amounts to US $237,000 and includes a project manager and other staff (US $100,000), RAC advisor/consultants and gender consultant (US $65,000), operating costs (US $16,000), stakeholder meetings, travel, workshops, and awareness raising (US $32,000) and independent verification (US $24,000).

Gender policy implementation

22. In line with decisions 84/92(d), 90/48(c) and 92/40(b), the proposal incorporated gender mainstreaming considerations into all components of stage III of the HPMP. Specifically the project objectives, outputs and activities all included gender considerations and the request includes a specific budget line for a gender expert to develop a gender action plan during the project implementation. Project implementation, monitoring and reporting indicators were included in the submission.

Total cost of stage III of the HCFC phase-out management plan

23. The total cost of stage III of the HPMP for Lebanon has been estimated at US $1,469,505 (plus agency support costs), as originally submitted, for achieving a 100 per cent reduction of HCFCs by 2030.

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

24. The first funding tranche of stage III of the HPMP in the total amount of US $605,129 will be implemented between January 2024 and December 2026 and will include the following activities:

(a) *Manufacturing conversion*: conversion of condensing units to CO_2 cascade/transcritical systems in Farjallah, Ltd. (US $210,441);

(b) *Regulatory framework*: development of a compendium of ODS phase-out legislation and policies to support stakeholders; issuance of bans for HCFC-22 in local manufacturing and import and establishment of new installations from 31 December 2025 (US $70,000);

(c) *Customs officers capacity building*: update of training materials and development of an ODS imports risk profile manual (US $30,000);

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(d) *Training, certification and equipment*: capacity building of RAC technicians on good servicing practices and reducing leakages through a train-the-trainers programme for a total of 15 RAC trainers (US $37,500) and equipping one vocational training centre with standard training equipment and tools (including refrigeration cycle trainer equipment; basic split AC trainer unit; condensing unit trainer unit; commercial refrigeration rack trainer unit and display door unit; gauge manifold set; leak detectors; weight scale; small scale charging machine; refrigerant recovery and recycle unit, vacuum pump; digital vacuum gauge; thermometer and cylinder) (US $92,688);

(e) *Gender sensitive-awareness campaign* on upcoming bans on HCFC-22 in manufacturing sector and on import and establishment of new installations for 2025; one end-user campaign on safety and benefits of ODS-free and low-GWP alternatives; one technical workshop on the use and application of alternative technologies (US $102,000); and

(f) *Project monitoring unit*: for recruitment and hiring of staff in the PMU, stakeholder meetings, two project board meetings, and reporting and monitoring (US $62,500).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

25. The Secretariat reviewed stage III of the HPMP in light of stages I and II, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2023-2025 business plan of the Multilateral Fund.

Overarching strategy

26. The Government of Lebanon proposes to meet the 100 per cent reduction of its HCFC baseline consumption by 2030, and to maintain a maximum annual consumption of HCFCs in the period of 2030 to 2040 at a level consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol.[8] Stage III will allow for the development of a comprehensive and coherent set of activities in the servicing sector, complemented by the necessary policies and regulations, and ensuring the continuity of those activities to sustain the reduction of HCFC consumption.

27. In line with decision 86/51, to allow for consideration of the final tranche of its HPMP, the Government of Lebanon agreed to submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption is in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the period 2030–2040, and, if Lebanon intends to have consumption during the period 2030–2040, in line with paragraph 8 ter(e)(ii) of Article 5 of the Montreal Protocol, proposed modifications to its Agreement with the Executive Committee covering the period beyond 2030.

Technical and cost-related issues

28. As submitted, funding for stage III of the HPMP was based on the country's remaining eligible consumption of HCFCs for Lebanon after stage II which was 224 mt (12.32 ODP tonnes) of HCFC-22 which was less than the 2022 consumption of 465 mt (25.56 ODP tonnes). Funding was determined for the servicing sector at US $1,022,064[9] for 212.93 mt (11.7 ODP tonnes) of the eligible consumption plus

[8] HCFC consumption may exceed zero in any year so long as the sum of its calculated levels of consumption over the ten-year period from 1 January 2030 to 1 January 2040, divided by 10, does not exceed 2.5 per cent of the HCFC baseline.

[9] At US$4.8/kg in line with decision 74/50

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US $210,441 for the conversion of one commercial refrigeration enterprise for 11.07 mt (0.61 ODP tonnes) and project monitoring costs at US $237,000 for a total of US $1,469,505 to phase out the remaining eligible consumption.

29. The Secretariat noted that based on stage II of the HPMP, all HCFC use for manufacturing was supposed to have been phased out, with consumption in the servicing sector remaining to be phased out in stage III. There was also an issue regarding the eligibility of the enterprise, and sustainability of the phase-out considering that the enterprise also produces equipment using R-404A in other lines; the present HCFC consumption is only 1.0 per cent of the overall manufacturing activities of the enterprise which is all for HFC-based products. The Secretariat and UNDP discussed the possibility of instead providing technical assistance to the enterprise to enable them to reduce HCFC consumption and to consider the total phase-out of the enterprise during stage I of the Kigali HFC implementation plan (KIP).

30. On that basis, UNDP reduced the total funding requested to US $1,182,720 including PMU costs of US $107,520 as further detailed below.

Commercial refrigeration manufacturing sector

31. The Secretariat sought clarification on the eligibility of the enterprise (Farjallah) noting that this enterprise appeared to have already been assisted in stage II of the HPMP under the company name Iceberg. It was further noted that there was no indication of any left-over consumption in the manufacturing sector at any point during stage II, and that technical assistance was provided for manufacturers of refrigeration equipment as these were very small enterprises in stage II. It was also noted that the request for project preparation funding for stage III approved at the 92nd meeting indicated that the new stage would be for the servicing sector only. UNDP explained that during stage II, it was solely the AC line which operated under the brand Iceberg which was funded and contributed to the total phase-out in the AC manufacturing sector. This one remaining line that still uses HCFC-22 in the last eligible enterprise is being requested only now due to the previous lack of low-GWP alternatives for this cold room application. UNDP further noted that the Government was requesting assistance for this enterprise as part of the country's remaining eligible consumption and requesting funding based on the requirements for the conversion using the cost-effectiveness threshold of commercial refrigeration at US $15.21 and IOC costs in line with decision 74/50.

32. During the review of the proposal, the Secretariat pointed out that as the enterprise appeared to be manufacturing cold rooms which fall into local assembly and installation, past practices for similar proposals was that they were assisted as part of the servicing sector.[16] Further, there was also concern regarding the sustainability of phasing out the remaining HCFCs while using CO_2 technology, which involves a high-degree of technical requirements, considering that the enterprise has other lines that were using HFCs. It was thus agreed that as the enterprise would be eligible to phase out their HFC consumption under the KIP, technical assistance at US $4.8/kg would be provided as part of the remaining eligible consumption to assist this remaining line using HCFCs to phase out, and that the overall phase-out of the enterprise will be included in stage I of the KIP. As a result, the funding was adjusted to remove the conversion component and to include US $53,136 for technical assistance to phase out 11.07 mt of HCFCs at US $4.8/kg.

Activities in the refrigeration servicing sector

33. Regarding the activities in the refrigeration servicing sector which included additional capacity building for customs officers, further strengthening the regulatory framework, further strengthening the capacity of technicians and training centres through provision of equipment, and awareness raising, the

[16] Noting that discussion on this sector is part of the 93rd meeting

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following elements were clarified to explain how activities in stage III built upon those completed in stage II:

(a) Activities in stage III will improve the type of training equipment and strengthen training capacities in vocational schools by providing fit-to-purpose training kits (RAC training stations) and establish a common baseline of practical training that is critical to improving practices across the board and will allow the certification/accreditation of technicians to be scaled up;

(b) Technician certification/accreditation and training will be expanded to include more technicians not previously assisted, particularly those that did not receive formal education;

(c) For customs officers, long term training modules, materials, and reference guides will be developed to ensure training delivery to new customs officers and continuously updated training of those already in office;

(d) The Government of Lebanon will finalize the remaining ban for the use of HCFCs in all manufacturing by 2025 and other supporting regulatory measures to sustain the phase-out of HCFCs.

Total project cost

34. Stage III of the HPMP will fully phase out all remaining consumption of HCFCs in Lebanon by 2030 for a total funding of US $1,075,200, plus US $107,500 for the PMU for a total of US $1,182,700 based on the country's remaining eligible consumption of 224 mt (12.32 ODP tonnes) of HCFC calculated at US $4.8/kg in line with decision 74/50. The funding for the first tranche was agreed as submitted.

Table 4. Agreed cost of stage III of the HPMP for Lebanon for UNDP

Activity	Cost (US $)
Technical Assistance for the commercial refrigeration manufacturing sector (Farjallah)	**53,136**
Component of assistance to the refrigeration servicing sector	
Regulatory framework	70,000
Customs officers capacity building	97,500
Training, certification and equipment	465,564
Gender sensitive-awareness campaign	389,000
Subtotal servicing sector	*1,022,064*
Total for all project activities	**1,075,200**
PMU	107,500
Total project cost	**1,182,700**

Impact on the climate

35. The activities proposed in the servicing sector, which include better containment of refrigerants through training and provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO_2-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by the Government of Lebanon, including its efforts to ensure better practices and recovery of refrigerants and to encourage the adoption of new alternative technologies indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

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Sustainability of the HCFC phase-out and assessment of risks

36. The Government of Lebanon has implemented a ban on the use of HCFC-141b in the RAC sector for flushing and cleaning purposes since 2019, and for use in manufacturing sandwich panels and insulation for solar and electric water heaters since 2021. In addition, the Government will ban the use of HCFC-22 in local manufacturing and import and establishment of new installations by 2025. Those bans, combined with other regulatory measures and the professionalization of the servicing sector will help ensure the long-term sustainability of the phase-out.

37. In line with UNDP's enterprise risk management policy, UNDP undertook a comprehensive review to identify and assess project risks. This resulted in a project risk register, which was reviewed by a project appraisal committee. Measures to mitigate risks included the implementation of stakeholder awareness campaigns about the impacts of technology choices and to promote low-GWP alternatives since Lebanon is a technology importer, and application of UNDP's Partner Capacity Assessment Tool and Enterprise Risk Management Policy.

Co-financing

38. The Government of Lebanon has committed to provide at least, US $220,000 for the PMU, which will include a project manager, a project assistant, and operational costs of the PMU (computers, office materials, offices rental, electricity, and utilities etc.). Any other co-financing from private sector partners or the Government may be identified and will be accounted for during implementation.

2023-2025 draft business plan of the Multilateral Fund

39. UNDP is requesting US $1,182,700, plus agency support costs, for the implementation of stage III of the HPMP for Lebanon. The total requested value of US $443,862, including agency support costs for the period of 2023–2025, is US $16,324 below the amount in the business plan.

Draft Agreement

40. A draft Agreement between the Government of Lebanon and the Executive Committee for stage III of the HPMP is contained in annex I to the present document.

RECOMMENDATION

41. The Executive Committee may wish to consider:

(a) Approving, in principle, stage III of the HCFC phase out management plan (HPMP) for Lebanon for the period from 2023 to 2030 for the complete phase out of HCFC consumption, in the amount of US $1,182,700, plus agency support costs of US $82,789 for UNDP, on the understanding that no more funding from the Multilateral Fund will be provided for the phase out of HCFCs;

(b) Noting:

(i) That the Government of Lebanon has committed:

a. To reducing HCFC consumption by 7.5 per cent of its baseline by 2025 and 88 per cent by 2028, and a complete phase-out of HCFCs by 1 January 2030, and that HCFCs will not be imported after that date except for those allowed for a servicing tail between 2030 and 2040, where required, consistent with the provisions of the Montreal Protocol;

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b. To ban the use of HCFC-22 in local manufacturing and import and establishment of new installations by 2025;

(c) Deducting 12.32 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;

(d) Approving the draft Agreement between the Government of Lebanon and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage III of the HPMP, contained in annex I to the present document;

(e) That, to allow for consideration of the final tranche of its HPMP, the Government of Lebanon should submit:

(i) A detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the period 2030-2040;

(ii) If Lebanon were intending to have consumption during the period 2030–2040, in line with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol, proposed modifications to its Agreement with the Executive Committee covering the period beyond 2030; and

(f) Approving the first tranche of stage III of the HPMP for Lebanon, and the corresponding tranche implementation plan, in the amount of US $414,824, plus agency support costs of US $29,038 for UNDP.

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Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF LEBANON AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE III OF THE HCFC PHASE-OUT MANAGEMENT PLAN

Purpose

1. This Agreement represents the understanding of the Government of Lebanon (the "Country") and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A ("The Substances") to a sustained level of zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.

2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A ("The Targets, and Funding") in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in rows 4.1.3, 4.2.3 and 4.3.3, (remaining consumption eligible for funding).

3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A ("Funding Approval Schedule").

4. The Country agrees to implement this Agreement in accordance with the stage III of the HCFC phase-out management plan approved ("the Plan"). In accordance with subparagraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:

(a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;

(b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;

(c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A ("Format of Tranche Implementation Reports and Plans") covering each

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previous calendar year, that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

(d) That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

Monitoring

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A ("Monitoring Institutions and Roles") will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same Appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

(a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in subparagraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:

(i) Issues potentially concerning the rules and policies of the Multilateral Fund;

(ii) Changes which would modify any clause of this Agreement;

(iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches;

(iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;

(v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;

(b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report; [and]

(c) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

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Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, in particular:

(a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and

(b) The Country and relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

Bilateral and implementing agencies

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNDP has agreed to be the lead implementing agency (the "Lead IA") in respect of the Country's activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of the Lead IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring coordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per subparagraph 5(b). The role of the Lead IA is contained in Appendix 6-A. The Executive Committee agrees, in principle, to provide the Lead IA with the fees set out in row 2.2 of Appendix 2-A.

Non-compliance with the Agreement

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A ("Reductions in Funding for Failure to Comply") in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement and take related decisions. Once decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee and the Lead IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA with access to the information necessary to verify compliance with this Agreement.

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Date of completion

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per subparagraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per subparagraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

16. This Agreement may be modified or terminated only by mutual written agreement between the Government of the Country and the Executive Committee of the Multilateral Fund.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	35.95
HCFC-123	C	I	0.05
HCFC-141b	C	I	37.55
Total			73.50

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	47.78	47.78	23.88	23.88	23.88	23.88	23.88	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	27.58	18.39	17.84	17.84	17.84	8.92	8.92	0	n/a
2.1	Lead IA (UNDP) agreed funding (US $)	414,824	0	0	633,126	0	0	0	134,750	1,182,700
2.2	Support costs for Lead IA (US $)	29,038	0	0	44,319	0	0	0	9,432	82,789
3.1	Total agreed funding (US $)	414,824	0	0	633,126	0	0	0	134,750	1,182,700
3.2	Total support costs (US $)	29,038	0	0	44,319	0	0	0	9,432	82,789
3.3	Total agreed costs (US $)	443,862	0	0	677,445	0	0	0	144,182	1,265,489
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									12.32
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)									23.63

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Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030	Total
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									0
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)									0
4.2.2	Phase-out of HCFC-123 to be achieved in the previous stage (ODP tonnes)									0.05
4.2.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)									0
4.3.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)									0
4.3.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)									37.53
4.3.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)									0

*Date of completion of stage II as per stage II Agreement: 31 December 2025

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the second meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of five parts:

(a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting the situation of the Country in regard to phase out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes;

(b) An independent verification report of the Plan results and the consumption of the Substances, as per subparagraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in subparagraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;

(c) A written description of the activities to be undertaken during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under subparagraph (b) above;

(d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and

(e) An Executive Summary of about five paragraphs, summarizing the information of the above subparagraphs 1(a) to 1(d).

2. In the event that in a particular year two stages of the Plan are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

(a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and

(b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The monitoring process will be managed by the National Ozone Unit (NOU), Ministry of Environment, with the assistance of the Lead IA.

2. The consumption will be monitored and determined based on official import and export data for the substances recorded by relevant government departments.

3. The NOU, Ministry of Environment, shall compile and report the following data and information on an annual basis on or before the relevant due dates:

(a) Annual reports on consumption of the substances to be submitted to the Ozone Secretariat, and

(b) Annual reports on progress of implementation of the Plan to be submitted to the Executive Committee of the Multilateral Fund.

4. The consumption will be monitored annually throughout the implementation of the Plan and accordingly reflected in the progress report on the implementation of the Plan.

5. The NOU, Ministry of Environment shall endorse the final report and the Lead IA shall submit the same to the relevant meeting of the Executive Committee along with the annual implementation plan and reports.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including at least the following:

(a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's Plan;

(b) Assisting the Country in preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;

(c) Providing independent verification to the Executive Committee that the Targets have been

met and associated tranche activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;

(d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future Tranche Implementation Plans consistent with subparagraphs 1(c) and 1(d) of Appendix 4-A;

(e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee;

(f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HCFC consumption targets had been met;

(g) Ensuring that appropriate independent technical experts carry out the technical reviews;

(h) Carrying out required supervision missions;

(i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;

(j) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country, the allocation of the reductions to the different budget items and to the funding of the Lead IA;

(k) Ensuring that disbursements made to the Country are based on the use of the indicators;

(l) Providing assistance with policy, management and technical support when required; and

(m) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the Plan's results and the consumption of the Substances mentioned in Appendix 1-A, as per subparagraph 3(b) of the Agreement and subparagraph 1(b) of Appendix 4-A.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US $174 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the Plan being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that

lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.

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Annex 8: Consideration of the Multilateral Fund Gender Policy in HPMP preparation- Gender Assessment, Findings and Action Plan

1. The country has established The National Commission for Lebanese Women (NCLW) in 1998 that aims at supporting women's right in public institutions. With the guidance from NCLW the country has adopted the National Strategy for Women in Lebanon (2011-2021), aiming at achieving gender equality across all sectors[3]

2. Given the specifics of the refrigeration and air-conditioning and foam sectors, there is in general lack of interest from women to build career in the manufacturing of the refrigeration and air-conditioning equipment or foam products. The same applies to the refrigeration servicing sector. There is more presence of women in decision-making and managerial roles as far as HPMP concerns (3 women will be involved in stage III implementation).

3. The goal in stage III is to ensure that there are equal opportunities for women to build career in the refrigeration and air-conditioning sector and create a safe place for female participation.

4. Stage I and the first and second tranches of stage II were approved prior to decision 84/92(d) and no specific action was taken related to gender policy. Under the third and fourth tranches of stage II NOU took into consideration the policies on gender mainstreaming and has put in place measures to encourage the participation of women in the AC-R sector. Project planning activities took into account gender mainstreaming. The NOU organised one training on gender issues at each operational training centre, and each training centre will develop an action plan to promote the increased participation of women in the refrigeration servicing training. 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

5. Stage III will build on the activities of stage II. During preparation of stage III a due consideration has been given to the gender mainstreaming and how to incorporate it in all parts of the plan. When hiring external and technical support for the HPMP preparation a priority was given to female candidates. A specific gender plan is included under PMU. However, the issue is cross-sectional and will be incorporated throughout HPMP.

Table 28 Gender mainstreaming checklist

Project component	Question	Answer		
		Yes	No	Partially
Project preparation	Does the project concept include consideration of (a) the different situations of women and men, and (b) the impacts the project will have on these different societal groups?	X		
	Does the project explicitly address one or			

[3] https://www.devex.com/organizations/national-commission-for-lebanese-women-nclw-126582

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Project component	Question	Answer		
		Yes	No	Partially
	more of the identified gender issues/ genders-differentiated project impacts? Please describe how, and if not provide an explanation.	X		
	Explanation: female technicians can be intimidated to participate in the trainings and targeted trainings can be very helpful in addressing the issues. Stage III will ensure that there are training specifically for female technicians.			
Data and statistics	Where applicable, does the project require the collection of sex-disaggregated data and qualitative information to analyze and track gender issues?	X		
Results framework	Are outcomes, outputs and activities designed to meet the different needs and priorities of women and men?		X	
	Does the results framework include gender responsive indicators, targets and baseline data to monitor gender equality results?	X		
Budget	Has the budget taken into account allocations for the proposed gender activities (e.g., capacity building activities for female technicians)?	X		
Stakeholders and participation	Are women/gender-focused Ministries, groups, associations or gender units in partner organizations consulted/included in the project?		X	
	Does the project ensure that both women and men can provide inputs, access and participate in project activities (e.g., through outreach / invitations of female technicians to participate in capacity building activities)?	X		
Gender capacities	Has a gender expert been recruited or does the project staff have gender knowledge and have gender related tasks incorporated in their job descriptions?			X
	Will project staff and stakeholders be sensitized to gender (e.g., through completion of UN Women online training courses)?	X		
Implementation arrangement	Is there gender-balanced recruitment of project personnel and gender balanced representation in project boards and steering committees?	X		

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Project component	Question	Answer		
		Yes	No	Partially
Monitoring and evaluation	Does the monitoring and evaluation of the project require specific reporting on gender issues and progress made to address these (quantitatively and qualitatively)?	X		

6. The specific activities to be undertaken in stage III are presented below:
   i. *Active promotion of female technicians' participation in training and capacity-building programmes (including female only trainings for servicing technicians);*
   ii. *Training centers will hold a session on gender mainstreaming and prepare a gender action plan;*
   iii. *Consultations with women groups, female leaders in industry sectors and associations, NCLW and national experts in gender issues on identifying gender gaps in the industry and AC-R sector specifically;*
   iv. *Development of promotional material for the gender empowerment in the AC-R sector;*
   v. *Interviews and meetings with women in the field (female technicians, trainers and others) to tackle under-representation and unequal treatment of women in the field by ensuring financial benefits, equal pay, safety in workplaces, and development of a systematic plan for addressing gender equality and women's empowerment;*
   vi. *Development of tracking tools to measure progress achieved in all sectors (female participation figures, sex-disaggregated data etc…);*
   vii. *Sensitization of project staff on gender issues, completion relevant UN training courses*