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

PROJECT PROPOSAL: JORDAN

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) | UNIDO | Individual consideration |
|---|-------|--------------------------|

¹ UNEP/OzL.Pro/ExCom/95/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Jordan

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

(II) LATEST ARTICLE 7 DATA (Annex C, Group I)	Year: 2023	15.73 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2023	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					15.73				15.73

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	83.00	Starting point for sustained aggregate reductions:	94.29
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	70.30	Remaining:	23.99

(V) ENDORSED BUSINESS PLAN		2024	2025	2026	Total
UNIDO	ODS phase-out (ODP tonnes)	2.00	0.00	6.57	8.57
	Funding (US \$)	186,760	0	613,040	799,800

(VI) PROJECT DATA			2024	2025	2026	2027	2028	2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			53.95	26.97	26.97	26.97	26.97	26.97	0	n/a
Maximum allowable consumption (ODP tonnes)			22.00	20.00	15.73	15.73	15.73	15.73	0	n/a
Project costs requested in principle (US \$)	UNIDO	Project costs	747,823	0	0	573,948	0	0	147,125	1,468,896
		Support costs	52,348	0	0	40,176	0	0	10,299	102,823
Total project costs recommended in principle (US \$)			747,823	0	0	573,948	0	0	147,125	1,468,896
Total support costs recommended in principle (US \$)			52,348	0	0	40,176	0	0	10,299	102,823
Total funds recommended in principle (US \$)			800,171	0	0	614,124	0	0	157,424	1,571,719

(VII) Request for approval of funding for the first tranche (2024)		
Implementing agency	Funds recommended (US \$)	Support costs (US \$)
UNIDO	747,823	52,348
Total	747,823	52,348

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

Background

1. On behalf of the Government of Jordan, UNIDO as the designated implementing agency has submitted a request for stage III of the HCFC phase-out management plan (HPMP), in the amount of US \$2,423,630, plus agency support costs of US \$169,654, as originally submitted.² The implementation of stage III of the HPMP will phase out the remaining consumption of HCFCs by 2030.

2. The first tranche of stage III of the HPMP being requested at this meeting amounts to US \$1,361,250, plus agency support costs of US \$95,288, for UNIDO, as originally submitted.

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

3. Stage II of the HPMP for Jordan was approved at the 77th meeting³ to phase out 44.79 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing, refrigeration manufacturing, and foam sectors, and to meet the 35 per cent reduction from the baseline by 2020, at a total cost of US \$3,074,691, plus agency support costs. Stage II of the HPMP will be completed by 31 December 2024 as approved through decisions 93/15(b)(i) and 93/16(b).

Report on HCFC consumption

4. The Government of Jordan reported a consumption of 15.73 ODP tonnes of HCFCs in 2023, which is 81 per cent below the HCFC baseline for compliance. The 2019-2023 HCFC consumption is shown in table 1.

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

HCFC	2019	2020	2021	2022	2023	Baseline
Metric tonnes (mt)						
HCFC-22	305.00	530.00	166.54	262.54	286.00	985.30
HCFC-141b	60.00	0.00	0.00	0.00	0.00	261.70
Total (mt)	365.00	530.00	166.54	262.54	286.00	1,247.00
HCFC-141b in imported pre-blended polyols*	226.00**	240.00	387.34	0.00	0.00	102.82***
ODP tonnes						
HCFC-22	16.78	29.15	9.16	14.44	15.73	54.19
HCFC-141b	6.60	0.00	0.00	0.00	0.00	28.79
Total (ODP tonnes)	23.38	29.15	9.16	14.44	15.73	82.98
HCFC-141b in imported pre-blended polyols*	24.86**	26.40	42.61	0.00	0.00	11.31***

* Country programme (CP) data.

** Verified imports. The country reported imports of 226.19 mt (24.88 ODP tonnes) under its CP data report.

*** Average consumption between 2007 and 2009.

5. HCFC-22 consumption had been decreasing due to the implementation of HPMP activities and the adoption of R-410A in the air-conditioning (AC) sector. There was a substantial increase in consumption in 2020 due to increase in economic activity and equipment servicing, followed by a substantial decrease in consumption given restrictions and decreased demand due to the COVID-19 pandemic, which then slowly recovered following the easing of COVID-19 restrictions. With the exception of 2019, when the only systems house in the country imported pure HCFC-141b, the country ceased consuming pure HCFC-141b in 2016. Consumption of HCFC-141b contained in pre-blended polyols has been zero since

² As per the letter of 29 May 2024 from the Ministry of Environment of Jordan to UNIDO.

³ Decision 77/45

January 2022 in line with the ban on its import; the increase in 2021 was due to stockpiling in advance of the ban.

Country programme implementation report

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

Status of progress and disbursement

7. Since approval of the third and final tranche of stage II and the progress report submitted to the 94th meeting, the following activities were implemented:

- (a) In 2024, Jordan implemented a system within the customs department that allows online approval of HCFC imports by the national ozone unit (NOU). This online reporting window improves monitoring and control of imports and reduces reporting discrepancies;
- (b) A ban on import or re-export of HCFC-141b in bulk and in pre-blended polyols was enforced from 2022. Activities to phase out consumption of HCFC-141b pure and in polyols under stage II are complete as of July 2024. The phase-out of the remaining polyurethane (PU) foam manufacturing enterprises has been completed, resulting in the cumulative phase-out of 353.73 mt of HCFC-141b in bulk and contained in pre-blended polyols:
 - (i) Six large enterprises manufacturing PU foam (115.13 mt) and six enterprises manufacturing spray foam (82.01 mt) were converted under stage II, for a combined phase-out of 197.14 mt;
 - (ii) The conversion of a further four PU foam manufacturing enterprises was completed, resulting in the phase-out of 59.80 mt of HCFC-141b contained in pre-blended polyols;
 - (iii) The procurement and distribution of low-global-warming-potential (GWP) pre-blended polyol to foam enterprises, delayed due to challenges related to the COVID-19 pandemic and supply challenges due to small quantities needed in the country, and extended at the 93rd meeting,⁴ is complete: under stage II, a total 31 of the 43 small and medium-sized enterprises (SMEs) in PU foam manufacturing and 10 of the 22 in refrigeration manufacturing that had been provided technical assistance through a systems house were converted. Funding associated with those enterprises that had not participated in the project, estimated at US \$240,000, plus agency support costs, will be returned to the Multilateral Fund upon financial completion of the project;
- (c) Recovery and recycling equipment procured under the project were distributed to 55 workshops;
- (d) The procurement of 11 refrigerant identifiers and completion of training of trainers in good servicing practices, extended at the 93rd meeting,⁵ is ongoing: training of trainers will instead be completed under the contract with the vocational training centres, and the funds are being used to procure two additional identifiers; eight have been procured but not yet delivered as they are awaiting confirmation from the Ministry of Environment for the

⁴ Decision 93/16(b)

⁵ Decision 93/15(b)(i)

customs and sales tax exemption, and the remaining five identifiers will be procured and delivered by December 2024; and

- (e) Fifty technicians were trained on good service practices and safe use of flammable alternatives, for a total 180 trained under stage II.

Level of fund disbursement

8. As of June 2024, US \$2,767,808 of the US \$3,074,691 approved for stage II (90 per cent) had been disbursed (US \$1,836,680 for the World Bank and US \$931,128 for UNIDO), as shown in table 2. Any remaining balances will be returned upon financial completion of the project.

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

Tranche		World Bank	UNIDO	Total	Disbursement rate (%)
First	Approved	526,956	392,171	919,127	100
	Disbursed	526,956	391,889	918,845	
Second	Approved	1,013,554	540,849	1,554,403	99
	Disbursed	1,013,554	527,804	1,541,358	
Third	Approved	534,726	66,435	601,161	51
	Disbursed	296,170	11,435	307,605	
Total	Approved	2,075,236	999,455	3,074,691	90
	Disbursed	1,836,680	931,128	2,767,808	
	Balance	238,556	68,327	306,883	

Stage III of the HCFC phase-out management plan

Remaining consumption eligible for funding

9. After deducting 70.30 ODP tonnes of HCFCs associated with stages I and II of the HPMP, the remaining consumption eligible for funding in stage III amounts to 23.99 ODP tonnes of HCFC-22.

Sector distribution of HCFCs

10. There are approximately 3,240 technicians and 1,556 workshops operating in the servicing sector, consuming HCFC-22 to service room and commercial AC (rooftop, multi split, and chillers); commercial refrigeration (stand-alone, medium condensing units, and centralized systems); and industrial and transport refrigeration, as shown in table 3. The majority of technicians (79 per cent) have graduated from post-secondary and vocational schools, with the remaining working as apprentices, and all those technicians work in licensed workshops. There are about 435 independent technicians who do not work from a fixed address. HFC-134a represents 35 per cent of refrigerants used in the servicing sector, followed by R-410A (30 per cent), and other HFCs (10 per cent), whereas HCFC-22 represents 25 per cent. A ban on manufacturing based on HCFCs and a ban on import of new or used HCFC-based equipment were implemented during stage I and II of HPMP.

Table 3. Estimation of HCFC consumption and leakage rates by RAC subsector in Jordan in 2023

Sector/Application	Consumption (mt)	Estimated leakage rate (%)
Room AC	40.00	7.0
Commercial AC	26.00	4.0
Commercial refrigeration	90.00	21.0
Industrial refrigeration	70.00	2.0
Transport refrigeration	60.00	5.0
Total	286.00	-

Phase-out strategy

11. Stage III of the HPMP will focus on strengthening the legal framework; building the capacity of the servicing sector; supporting refrigerant recovery, recycling, and reclamation; and raising awareness.

Proposed activities

12. Stage III proposes the following activities:

- (a) Translation of the customs training manual into the country's official language (US \$10,000); 12 workshops to train 225 customs and enforcement officers on the control of HCFCs and prevention of illegal trade (US \$90,000); and provision of 18 refrigerant identifiers to customs and two to the Jordan Standards and Metrology Organization (JSMO) (US \$100,000);
- (b) Eighteen workshops to train 375 RAC technicians on good servicing practices and the safe handling of refrigerants (US \$150,000); provision of an AC training module and 12 sets of tools⁶ to each of the three vocational training centres, and 375 sets of basic servicing tools for RAC technician trainees (US \$250,000); and provision of tools and equipment⁷ to 345 RAC service workshops to support their capacity to recover and recycle refrigerants (US \$915,000);
- (c) Equipment support⁸ and technical assistance (including training on the new equipment) to each of the three reclamation centres established under stage II of the HPMP (US \$248,000);
- (d) Technical assistance to cold stores, including planning and surveys, technical assistance and safety support, and staff training to support 10 cold stores in their conversion to alternative refrigerants (US \$160,000);
- (e) Awareness-raising and outreach, including a media campaign targeting business owners and the public on the environmental impacts of refrigerants (US \$30,000), 12 workshops for 210 stakeholders to discuss and raise awareness on the importance of refrigerant reclamation (US \$30,000), and eight information sessions for 140 cold room owners to promote alternative refrigerants (US \$20,000); and
- (f) Contingency (US \$220,330).

Project implementation and monitoring

13. The system established under stages I and II of the HPMP will continue into stage III, with the NOU and UNIDO monitoring activities, reporting on progress, and working with stakeholders to phase out HCFCs. The cost of those activities for UNIDO amounts to US \$200,300, and includes consultants

⁶ Each set includes a portable refrigerant recovery unit, 12.3 L recovery cylinder, two-valve refrigeration manifold, electronic scale, dual stage vacuum pump, micron gauge, tool trolley with basic tools, MAPP gas brazing torch, MAPP gas cartridge, electronic leak detector, nitrogen regulator, connection hose, and infrared (IR) refrigerant sensor.

⁷ Each workshop would receive a recovery unit, red/blue/yellow hoses, filter drogers, 27.2 L refrigerant cylinders, electronic scale, vacuum pump, meter set house with hose, IR leak detector, IR refrigerant sensor, toolbox, and basic tools.

⁸ Each centre would receive a gas chromatograph, laboratory equipment, washing and testing tools, and a refrigerant identifier.

(US \$107,600), travel (US \$38,000), meetings and workshops (US \$38,000), and miscellaneous expenses (US \$16,700).

Gender policy implementation

14. As a country, Jordan has been developing policies and strategies to support women's empowerment and promote gender equality, such as the 2020-2025 strategy to eliminate gender-based violence and discrimination. Although no formal gender assessment was conducted during project preparation, a gender analysis was performed based on the gender-disaggregated data collected under stage II of the HPMP, which showed that the participation of women in RAC sector activities is rare. The NOU will continue to collect gender-disaggregated data and raise awareness of the gender policy to stakeholders in HPMP implementation, aiming for the participation of women in customs trainings, technician trainings, and the certification programme where possible.

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

15. The total cost of stage III of the HPMP for Jordan has been estimated at US \$2,423,630 (plus agency support costs), as originally submitted, for achieving a 67.5 per cent reduction from its HCFC baseline consumption by 2025 and a 100 per cent reduction by 2030. The proposed activities and cost breakdown are summarized in table 4.

Table 4. Total cost of stage III of the HPMP for Jordan as submitted (UNIDO)

Activity	Cost (US \$)
Customs training and equipment	200,000
Technician training and equipment	1,315,000
Reclamation centres technical assistance and equipment	248,000
Technical assistance to cold stores	160,000
Awareness-raising and outreach	80,000
Project implementation and monitoring	200,300
Contingency	220,330
Total	2,423,630

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

16. The first funding tranche of stage III of the HPMP in the total amount of US \$1,361,250 will be implemented between January 2025 and December 2027 and will include the following activities:

- (a) Translation of the customs training manual into the country's official language (US \$10,000); seven workshops to train 129 customs and enforcement officers on the control of HCFCs and prevention of illegal trade (US \$51,600); and provision of nine refrigerant identifiers to customs and one to the JSMO (US \$50,000);
- (b) Twelve workshops to train 216 RAC technicians on good servicing practices and the safe handling of refrigerants (US \$86,400); provision of two AC training modules and 24 sets of tools to the vocational training centres, and 225 sets of tools for RAC technician trainees (US \$162,500); and provision of tools to 200 RAC service workshops, including recovery kits (US \$500,000);
- (c) Equipment support and technical assistance (including training on the new equipment) to two of the three reclamation centres established under stage II of the HPMP (US \$144,500);

- (d) Technical assistance to cold stores, including planning and surveys, technical assistance and safety support, and staff training to support four cold stores in their conversion to alternative refrigerants (US \$70,000);
- (e) Awareness-raising and outreach, including a media campaign targeting business owners and the public on the environmental impacts of refrigerants (US \$20,000), eight workshops for 140 various stakeholders to discuss and raise awareness on the importance of refrigerant reclamation (US \$20,000), and four information sessions for 70 cold room owners to promote alternative refrigerants (US \$10,000);
- (f) Project implementation and monitoring (US \$112,500), including consultants (US \$60,500), travel (US \$21,000), meetings and workshops (US \$21,500), and miscellaneous expenses (US \$9,500); and
- (g) Contingency (US \$123,750).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

17. The Secretariat reviewed stage III of the HPMP in light of stages I and II, stage I of the KIP, 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 (decisions 74/50 and 90/31), and the 2024-2026 business plan of the Multilateral Fund.

Overarching strategy

18. The Secretariat notes with appreciation the commitment of the Government of Jordan to establish maximum allowable consumption levels between 2024 and 2029 that are lower than those established by the Montreal Protocol (i.e., reductions of 73.5 per cent of the baseline in 2024, 75.9 per cent in 2025, and 81 per cent in 2026-2029). Those HCFC reductions are reflected in the Agreement between the Government and the Executive Committee. In addition, the Government of Jordan will meet the 100 per cent reduction of its HCFC baseline consumption by 2030 and 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.⁹

19. In line with decision 86/51, to allow for consideration of the final tranche of its HPMP, the Government of Jordan 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 Jordan intends 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.

Technical and cost-related issues

Funding eligibility

20. The funding as originally proposed was based on the country's remaining HCFC-22 consumption eligible for funding of 23.99 ODP tonnes, which is higher than consumption in recent years: the country's 2023 HCFC-22 consumption is 286.00 mt (15.73 ODP tonnes) and average 2021-2023 HCFC-22

⁹ 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.

consumption is 238.36 mt (13.11 ODP tonnes). As a result, the Secretariat invited the country to submit a revised proposal based on the eligible consumption to the present meeting.

21. In addition, as noted in the overview of issues identified during project review,¹⁰ UNIDO, on behalf of the Government of Jordan, had also included in the submission a proposal for a demonstration project to phase out 18.36 mt of HCFC-22 in the commercial and industrial refrigeration subsectors by introducing R-290 in 22 cold rooms of Jordan Silos and Supply General Company (Jordan Silos) and enhancing the energy efficiency of its refrigeration systems, enabling the enterprise to avoid the introduction of high-GWP HFCs. As further described in that document, Jordan decided to withdraw the proposal for the demonstration project.

22. As that demonstration project was withdrawn, the Secretariat discussed with UNIDO the possibility of the country submitting to a future meeting a pilot project under decision 91/65 that would focus on improving the energy efficiency of cold rooms while phasing down the HFC consumption of those cold rooms (i.e., similar to the cold rooms included in the Jordan Silos project). Subsequent to a discussion, it was agreed that UNIDO would submit a request for project preparation funding for such a proposal to the 96th meeting, in line with decision 91/65 that inter alia included the possibility that the Executive Committee would augment the funding window at a future meeting to maintain and/or enhance energy efficiency in the context of HFC phase-down as specified in decision XXVIII/2, and noting that the Executive Committee may, in such case, also consider extending when pilot projects could be submitted.

Revised proposal

23. On behalf of the Government of Jordan, UNIDO submitted a revised proposal for stage III of the HPMP in the amount of US \$1,468,896, plus agency support costs of US \$102,823, to phase out the remaining consumption of HCFCs by 2030. Project costs were calculated using the country's 2023 HCFC-22 consumption of 286.00 mt and based on the agreed cost effectiveness of \$4.80/kg, in line with decision 74/50(f)(xiii), and with a PMU budget at 7 per cent of project costs. Funding and activities under the revised proposal reflect changes to the provision of tools and equipment, changes to the technical assistance provided to the cold stores, and PMU activities, as well as the removal of the originally proposed contingency, as further discussed below and summarized in table 5.

24. Regarding the technical assistance to cold stores, UNIDO explained that there are a total of 60 cold stores consuming an unknown quantity of HCFC-22. Funding under this activity was adjusted to provide the following technical assistance: three workshops to inform owners of the benefits of replacing existing systems with energy-efficient, low-GWP technologies; an assessment to prioritize cold stores needing assistance, taking into account inter alia the age of baseline equipment, its leakage rate, HCFC-22 consumption, and the interest of equipment owners to upgrade their equipment; support to 10 to 20 (of 60 identified) cold stores, including system selection, cost analyses including the payback period given the improved energy efficiency of the low-GWP replacement technology, and providing guidance to installers; six months of power consumption monitoring to demonstrate the energy efficiency benefits and payback period, and dissemination of the results; and training to the assisted cold stores on the operation of equipment and the safe handling of refrigerants. While the low-GWP technology selected would depend on the specific cold store, UNIDO noted that for refrigeration systems up to 10 kW, R-600a, R-290, or R-1270 can be used providing temperatures down to -40°C; those refrigerants can be used with indirect systems up to 20 kg charge. For larger capacity direct systems, blends with GWPs below 300 such as R-454A, R-454C, R-455A, and R-457A could be used. For centralized systems, R-290 and R-1270 can be used for direct system, or in indirect systems with a transfer fluid. While CO₂ and, if safety conditions permit, ammonia could also be used, hydrocarbon-based systems tend to be simpler and less costly to install. Alternatively, refrigeration systems can be converted to stand-alone R-290-based systems of less than 30 kW capacity, as

¹⁰ UNEP/OzL.Pro/ExCom/95/31

was suggested in the demonstration project at Silos Company that was withdrawn, or as included in several previously approved Kigali HFC implementation plans (KIPs).

25. In addition, UNIDO clarified that, due to an inadvertent misunderstanding, the three reclamation centres that had been established under stage II of the HPMP were not provided with reclamation machines and, consequently, there was no capacity for reclamation in Jordan. To remedy this situation, it was agreed that two reclamation machines and three refrigerant identifiers would be procured under the reclamation support activity of the KIP. In line with that adjustment, the activity for reclamation support under stage III of the HPMP was adjusted, including by incorporating the development of a reclamation business model. The reclamation centres are collectively expected to recover between 3 and 6 mt of refrigerant annually from 2025. Refrigerant that is recovered from service workshops and that cannot be reused will be sent to the centres for reclamation or stored. Jordan intends to submit a project to develop an inventory of banks of used or unwanted controlled substances and a plan for the collection, transport and disposal of such substances to a future meeting of the Executive Committee.

Table 5. Activities and total cost of stage III of the HPMP for Jordan as agreed (UNIDO)

Activity	As submitted (US \$)	As agreed (US \$)
Customs training and provision of equipment to customs	200,000	150,000
Translation of the customs training manual into the country's official language (US \$10,000); 12 workshops to train 225 customs and enforcement officers on the control of HCFCs and prevention of illegal trade (US \$90,000); and provision of eight refrigerant identifiers to customs and two to the JSMO (US \$50,000)		
Technician training and provision of tools/equipment to training centres and RAC technician workshops	1,315,000	900,000
Twenty workshops to train 500 RAC technicians on good servicing practices and the safe handling of refrigerants (US \$150,000); provision of one set of tools ¹¹ to each of the three vocational training centres, and 375 sets of basic servicing tools for RAC technician trainees (US \$50,000); and provision of tools and equipment ¹² to 280 RAC service workshops ¹³ to support their capacity to recover and recycle refrigerants (US \$700,000)		
Reclamation centres technical assistance and provision of equipment	248,000	126,800
Technical and equipment support ¹⁴ to the three reclamation centres being established under stage II of the HPMP and stage I of the KIP (US \$126,800)		
Technical assistance to cold stores	160,000	116,000
Support cold stores in their conversion to alternative refrigerants through: three workshops to inform owners of the benefits of replacing existing systems to energy-efficient, climate-friendly technologies (US \$15,000); an assessment to prioritize cold stores needing assistance (US \$3,500); support to 10 to 20 (of 60 identified) cold stores, including system selection, cost analyses, and providing guidance to installers (US \$70,000); six months of power consumption monitoring (US \$10,000); and training to the assisted cold stores on the operation of equipment and the safe handling of refrigerants (US \$17,500)		
Awareness-raising and outreach	80,000	80,000
Media campaign targeting business owners and the public on the environmental impacts of refrigerants (US \$30,000), eight workshops for 140 various stakeholders to raise awareness on the importance of refrigerant reclamation (US \$20,000), and eight information sessions for 140 cold room owners to promote alternative		

¹¹ Each set includes a portable recovery unit, 12.3 L recovery cylinder, two-valve refrigeration manifold, electronic scale, vacuum pump, micron gauge, tool trolley with basic tools, MAPP gas brazing torch, MAPP gas cartridge, electronic leak detector, nitrogen regulator, connection hose, and IR refrigerant sensor.

¹² Each workshop will receive a recovery unit, red/blue/yellow hoses, filter driers, 27.2 L refrigerant cylinders, electronic scale, vacuum pump, meter set house with hose, IR leak detector, IR refrigerant sensor, toolbox, and basic tools.

¹³ Of the 400 workshops in the country, 55 were supplied with recovery and recycling equipment under stage II. Stage III will supply a further 280 workshops.

¹⁴ Costs cover one gas chromatograph and set of laboratory equipment, three sets of washing and testing tools, three sets of tools, development of a business plan, equipment installation, operational support, training, and transportation and insurance.

Activity	As submitted (US \$)	As agreed (US \$)
refrigerants (US \$20,000); and support the enforcement of regulations on refrigerant recovery and the prohibition on venting (US \$10,000)		
Project implementation and monitoring	200,300	96,096
Consultants (US \$52,000), travel (US \$18,000), meetings and workshops (US \$18,000), and miscellaneous expenses (US \$8,096)		
Contingency	220,330	0
Total	2,423,630	1,468,896

Coordination of activities under HCFC phase-out and HFC phase-down plans

26. Noting that stage III of the HPMP and stage I of the country's KIP (approved at the 93rd meeting) will be implemented simultaneously between 2024 and 2030, and include activities to strengthen the capacity in the country to service RAC sector, and of customs to control imports of controlled substances, the Secretariat sought to better understand how activities across the two projects would complement and not duplicate each other.

27. In order to explain how activities under the HPMP and KIP are complementary and not duplicative, UNIDO emphasized that tools under the former would be provided to training centres, while under the latter tools were provided to support technicians. The HPMP also includes providing tools and equipment for recovery and recycling to 280 workshops, while the tools to service workshops under the KIP are targeted toward subsectors not included in the HPMP (e.g., mobile air-conditioning (MAC)). The 375 RAC technicians trained under stage III of the HPMP would be in addition to the 1,115 RAC technicians to be trained under the KIP; cumulatively those two projects would train approximately 49 per cent of the RAC technicians in the country. Similarly, the provision of two reclamation machines under the KIP would be complemented by the provision of a gas chromatograph, tools, and assistance to develop a business model for the reclamation centres under the HPMP; and two refrigerant identifiers would be provided to two of the reclamation centres under the KIP while the gas chromatograph procured under the HPMP would be provided to the third reclamation centre (in Amman). Under the KIP, the training manual for customs officers will be updated, and 462 customs and enforcement officers will be trained on the monitoring and import control of HFCs and their alternatives. Under the HPMP, the manuals and training materials developed under the KIP will be translated to English and an additional 225 customs officers will be trained.

28. Under the KIP, technical assistance will be provided to 23 SMEs manufacturing commercial RAC equipment to uptake low-GWP technologies; that assistance is complemented by regulatory and policy assistance to facilitate the uptake of low-GWP, energy efficient alternatives and equipment. Those activities will be complemented by the technical assistance to cold rooms provided under the HPMP, which will target older, HCFC-22-based refrigeration systems.

Total project cost

29. The total cost for stage III of the HPMP amounts to US \$1,468,896 to phase out 15.73 ODP tonnes (286.00 mt) of HCFCs, the country's 2023 HCFC consumption; an additional 8.26 ODP tonnes (150.18 mt) of HCFCs will be deducted from the country's remaining HCFC consumption eligible for funding, resulting in an overall cost effectiveness of the project of US \$3.37/kg. The funding for the first tranche was agreed at US \$747,823, plus agency support costs of US \$52,348. Agreed activities and funding for the first tranche are shown in table 6.

Table 6. Activities and total cost of the first tranche of stage III of the HPMP for Jordan as agreed (UNIDO)

Activity	As submitted (US \$)	As agreed (US \$)
Customs training and provision of equipment to customs	111,600	61,600
Translation of the customs training manual into the country's official language (US \$10,000); and seven workshops to train 129 customs and enforcement officers on the control of HCFCs and prevention of illegal trade (US \$51,600)		
Technician training and provision of tools/equipment to training centres and RAC technician workshops	748,900	453,900
Twelve workshops to train 216 RAC technicians on good servicing practices and the safe handling of refrigerants (US \$86,400); provision of one set of tools to each of the three vocational training centres, and 375 sets of basic servicing tools for RAC technician trainees (US \$50,000); and provision of tools and equipment to 127 RAC service workshops, including recovery kits (US \$317,500)		
Reclamation centres technical assistance and provision of equipment	144,500	63,400
Technical and equipment support to the three reclamation centres being established under stage II of the HPMP and stage I of the KIP (US \$63,400) ¹⁵		
Technical assistance to cold stores	70,000	70,000
Support cold stores in their conversion to alternative refrigerants through: two workshops to inform owners of the benefits of replacing existing systems to energy-efficient, climate-friendly technologies (US \$10,000); an assessment to prioritize cold stores needing assistance (US \$3,500); support to 6 to 12 cold stores, including system selection, cost analyses, and providing guidance to installers (US \$40,000); six months of power consumption monitoring (US \$6,000); and training to the assisted cold stores on the operation of equipment and the safe handling of refrigerants (US \$10,500)		
Awareness-raising and outreach	50,000	50,000
Media campaign targeting business owners and the public on the environmental impacts of refrigerants (US \$20,000), eight workshops for 140 various stakeholders to discuss and raise awareness on the importance of refrigerant reclamation (US \$20,000), and four information sessions for 70 cold room owners to promote low-GWP alternative refrigerants (US \$10,000)		
Project implementation and monitoring	112,500	48,923
Consultants (US \$26,470), travel (US \$9,165), meetings and workshops (US \$9,165), and miscellaneous expenses (US \$4,123)		
Contingency	123,750	0
Total	1,361,250	747,823

30. To ensure that the last tranche comprised 10 per cent of the total funding for the refrigeration servicing sector and was scheduled for the last year of the plan, in line with decision 62/17, funding of the second and third tranches was adjusted, the third tranche was changed to be submitted in 2030 (rather than 2029) and the future tranches will be considered at the first meeting of the year to allow enough time to implement the last tranche activities.

31. The submission of the second and third tranches in 2027 and 2030 coincide with the schedule for stage I of the KIP for Jordan as specified in annex XLVIII of document UNEP/OzL.Pro/ExCom/93/105. In order to reduce the country's administrative and reporting obligations, it was agreed that the country could submit future tranches of the KIP to the first meeting of the year specified in annex XLVIII of document UNEP/OzL.Pro/ExCom/93/105 to allow the submission to the same meeting of future KIP and HPMP tranches.

Impact on the climate

32. 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

¹⁵ Costs for the first tranche cover the gas chromatograph and laboratory equipment, three sets of tools, equipment installation, operational support, training, and transportation and insurance.

approximately 1.8 CO₂-eq tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Jordan, including its efforts to promote low-GWP alternatives and refrigerant recovery and reuse, indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

Sustainability of the HCFC phase-out and assessment of risks

33. The country's consumption has been substantially below the targets specified in the Agreement between the country and the Executive Committee, reflecting the effectiveness of the control measures put in place during the first two stages of the HPMP. The Government will continue to enact and enforce those control measures to ensure the sustainability of the HCFC reductions proposed in stage III. Cooperation with customs will be strengthened during stage III through training to ensure better recording of imports. Sustainability of the phase-down will be monitored through the periodic review and monitoring of the implementation of activities under stage III of the HPMP. The Secretariat considers the decision of the country to focus stage III on a limited number of activities that are aligned with the implementation of the KIP to be strategic, and notes that there will be benefits to both the HCFC phase-out and HFC phase-down with the implementation of complementary activities, including recovery and reclamation, awareness-raising activities, technical assistance to cold rooms, and activities to strengthen servicing practices of RAC technicians.

34. The average HFC consumption in 2020-2022 (785.71 mt) is lower than the average HCFC consumption in 2009-2010 (1,246.90 mt), notwithstanding the growth that would be expected over the more than a decade in the use of refrigerants and that HFCs in Jordan are consumed in additional subsectors (i.e., MAC, aerosols and firefighting). This difference, combined with the December 2016 ban on the import and manufacture of HCFC-based equipment, suggests there is a risk that existing HCFC-based equipment will be replaced by high-GWP HFC-based equipment. The Secretariat considers the comprehensive stage I of the KIP for the country that was approved at the 93rd meeting, and the technical assistance activities to promote low-GWP technologies planned under stage III, to be effective mechanisms to mitigate that risk.

Co-financing

35. While the country continues to explore opportunities for co-financing, there are currently none in place. However, in-kind contributions will be provided by several HPMP stakeholders to support the implementation of planned activities, including logistical support for the sustainable operation of reclamation centres, experts from the refrigeration associations contributing to training activities, and the use of facilities and equipment of the vocational training centres.

2024-2026 draft business plan of the Multilateral Fund

36. UNIDO is requesting US \$1,468,896, plus agency support costs, for the implementation of stage III of the HPMP for Jordan. The total requested value of US \$800,171, including agency support costs for the period of 2024–2026, is US \$371 above the amount in the business plan.

Draft Agreement

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

RECOMMENDATION

38. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage III of the HCFC phase-out management plan (HPMP) for Jordan for the period from 2024 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$1,468,896, plus agency support costs of US \$102,823, for UNIDO, on the understanding that no more funding from the Multilateral Fund will be provided for the phase-out of HCFCs;
- (b) Noting the commitment of the Government of Jordan to completely phase out 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;
- (c) Deducting 23.99 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Jordan 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 Jordan 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 Jordan 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;
- (f) Allowing future tranches of stage I of the Kigali HFC implementation plan to be submitted to the first meeting of the year to align with Appendix 3-A of the Agreement between the Government of Jordan and the Executive Committee for stage III of the HPMP;
- (g) Inviting the Government of Jordan, if it so wishes, to submit to the 96th meeting a request for funding to prepare a project under decision 91/65 to improve the energy efficiency of cold rooms in the context of the HFC phase-down; and
- (h) Approving the first tranche of stage III of the HPMP for Jordan, and the corresponding tranche implementation plan, in the amount of US \$747,823, plus agency support costs of US \$52,348 for UNIDO.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE HASHEMITE KINGDOM OF JORDAN 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 the Hashemite Kingdom of Jordan (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 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 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.

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. UNIDO 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.

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	54.19
HCFC-141b	C	I	28.79
Subtotal			82.98
HCFC-141b contained in imported pre-blended polyols			11.31
Total			94.29

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	53.95	26.97	26.97	26.97	26.97	26.97	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	22.00	20.00	15.73	15.73	15.73	15.73	0	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	747,823	0	0	573,948	0	0	147,125	1,468,896
2.2	Support costs for Lead IA (US \$)	52,348	0	0	40,176	0	0	10,299	102,823
3.1	Total agreed funding (US \$)	747,823	0	0	573,948	0	0	147,125	1,468,896
3.2	Total support costs (US \$)	52,348	0	0	40,176	0	0	10,299	102,823
3.3	Total agreed costs (US \$)	800,171	0	0	614,124	0	0	157,424	1,571,719
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								23.99
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								30.20
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)								0.00
4.2.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)								28.79
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)								0.00

Row	Particulars	2024	2025	2026	2027	2028	2029	2030	Total
4.3.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)								0.00
4.3.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in the previous stage (ODP tonnes)								11.31
4.3.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)								0.00

* Date of completion of stage II as per decisions 93/15(b)(i) and 93/16: 31 December 2024

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the first 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 national ozone unit (NOU) will be responsible for the monitoring and overall coordination of national activities during implementation of the Plan.
2. An independent consultant will be employed by the Lead IA if required for the verification of achievements. An annual report will be prepared by the NOU with the assistance of the Lead IA.

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 5(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 \$122 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.